Relationship between Patients, Visitors’ Violence and Emergency Nurses’ Work Productivity

Fayza Ahmed Abdou 1*, Azza Abd Elrazek Baraka 2
1Critical Care and Emergency Nursing Department, Faculty of Nursing, Assuit University, Assuit, Egypt
2Critical Care and Emergency Nursing Department, Faculty of Nursing, Alexandria University, Alexandria, Egypt

Email id - 1faiza_critical@yahoo.com, 2azzabaraka@yahoo.com

1. Abstract

Background: Violence in the health care setting affects the employee, employer, and patients. Emergency department (ED) nurses experience physical assaults at the highest rate of all nurses which may affect their productivity and job satisfaction. Objective: assess the relationship between patients and visitors’ violence and emergency nurses work productivity. Research question: what is the relationship between patients and visitors’ violence and emergency nurses work productivity? Research design: descriptive research design was used in this study. Setting: This study was conducted in emergency department of Assuit Main University Hospital cardiology and resuscitation unit (CPR) and trauma unit. Subjects: A convenient sample of approximately 100 emergency care nurses were in this study and the period of data collection from January 2017 to April 2017. Results: more than two third of nurses (68%) had a negative effect on their work productivity after exposure to violence. Also, the majority of them feels emotionally exhausted and don’t be able to continue their work. Conclusion: emergency nurses were predisposed to work violence from patients and their families which affect negatively their productivity of work and ability to continue in their career.

Keywords: Patients, Violence, Emergency nurses, work productivity

2. Introduction

Emergency department is an area of a hospital especially equipped and staffed for emergency care. Emergency nurses face a lot of violence in emergency units. Violence is defined by the World Health Organization (WHO) as “the intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, which either results in or has a high likelihood of injury, death, psychological harm, mal-development, or deprivation”. It has also several forms in hospitals and other healthcare settings. There are possible sources of violence include patients, visitors, intruders, and even coworkers. It includes verbal threats or physical attacks by patients, a distraught family member who may be abusive in the emergency department. Healthcare workers are at an increased risk for workplace violence. Violence against nurses in emergency room comes in many forms and contexts of patients or their relatives and has implications far beyond the nurses and criminal of violence. Also the violence can affect social and economic status which has an impact on nurses’ productivity, as well on individuals, their relationships and surrounding communities.[1,2]

Violence can be divided into three broad categories: self-directed violence, interpersonal violence and collective violence. Violent acts can be physical, sexual, psychological, and emotional. Recent study of Aelexia F (2016) showed that around one in four nurses has been physically attacked at work in the last year. Further the healthcare workers represent around nine percent of the workforce. Working directly with patients in emotional and physical pain has always put healthcare workers at risk of violence. But in the past decade or so, there has been increase in the rate of violence incidents reported against healthcare workers.

Emergency departments provide medical treatment for a broad spectrum of illnesses and injuries to patients who arrive either by person or ambulance. The quality and efficient delivery of patient care in emergency departments depend upon a variety of interrelated elements, such as prompt off-loading of ambulance patients, quick and accurate triage (that is, the process of prioritizing patients according to the urgency of their illness or injury), nurse and/or physician assessment, diagnostic and laboratory services, consultations with specialists, and treatment. A patient’s length of stay in the emergency department depends on the timeliness of each part of the emergency process. As well as on the availability of further care, such as an in-patient hospital bed. If the patient needs to be admitted to emergency unit timely and accurately triage is critical to ensure that patients with urgent, life-threatening conditions are treated as quickly as possible. Triage nurses assess and classify patients based on the Canadian Triage and Acuity Scale (CTAS). CTAS is a five-point scale, with level 1 being the most acute and level 5 the least acute.[3]

Workplace violence is a serious problem. Different organizations have defined workplace violence in various ways. The National Institute for Occupational Safety and Health (OSHA 2015) defines workplace violence as “violent acts including physical assaults and threats of assault, directed toward persons at work or on duty. Enforcement activities typically focus on physical assaults or threats that can result in serious physical harm. However, many
people who study this issue and the workplace prevention programs highlighted verbal violence threats, verbal abuse, hostility, and harassment which can cause significant psychological trauma and stress, even if no physical injury takes place. Verbal assaults can also escalate to physical violence.[4]

As OSHA (2015) reported that risk factors for workplace violence vary by healthcare setting, but most common factors include the following: working with people who have a history of violence or who may be delirious or under the influence of drugs, lifting, moving, and transporting patients. Also, working alone, poor environmental design that may block vision or escape routes, poor lighting in hallways or exterior areas, lack of means of emergency communication, presence of firearms, working in neighborhoods with high crime rates, lack of training and policies for staff, understaffing in general and especially during meal times and visiting hours, high worker turnover, inadequate security staff, long waiting times, overcrowded waiting rooms and unrestricted public access.[4]

The impact of violence on the productivity of nurses to work and workplace violence is a major public health concern that has received growing national attention. Among health care workers, nurses and patient care assistants (PCAs) experience the highest rates of violence. Emergency department (ED) nurses experience physical assaults at the highest rate of all nurses. In a study of Minnesota nurses, ED nurses were over four times more likely to report they had been assaulted compared with nurses in other units.[5]

A study, making further analysis of patient and visitor violence against nurses in Swiss hospitals showed that 95% of nurses have experienced violence during their careers, 72% of them experienced verbal abuse, and 42% of them had physical violence in the past 12 months. Factors such as emotional manifestations arising from health problems and pain, psychiatric disorders, alcohol and other substances abuse may influence people's behavior and make them verbally and physically violent. Therefore, nursing and health care professionals are subjected to these events, for being considered normal among workers who establish contact with people in distress.[5]

Significance of the study
There is high percentage of violence among nurses all over the world especially nurses who work in emergency department as the studies showed that incidence of violence early in their careers are particularly problematic as they may lead to disappointment with job. Nurses often feel powerless to deal with a situation in which they have been victimized and, as a result, accept violence as part of the job. While Homeyer (2015)[6] concluded that nurses are often reprimanded or fired if they defend themselves against violence. As job satisfaction decreases as a result of violence, the likelihood of nurses leaving their employment increases.[7] The rates of verbal abuse reported by nurses ranged from 94% to 17% as experienced by nurses. Nurses have the right to practice in a supportive environment where workplace violence is not tolerated. There is a need to implement policies, procedures and practices that promote safety and the well-being of nurses in emergency room. Therefore the study was carried out to assess the relationship between patients, visitors’ violence and emergency nurses work productivity.

Aim of this study was to
Assess the relationship between patients and visitors’ violence and emergency nurses work productivity

Research question
What is the relationship between patients, visitors’ violence and emergency nurses work productivity?

3. Subjects and Method

Study Design
Descriptive research design was used in this study.

Setting
The study was conducted in emergency department of Assuit Main University Hospital cardiopulmonary resuscitation unit (CPR) and trauma unit.

Subjects:
A convenient sample of approximately 100 emergency care nurses who are involved in providing direct patient care and working in previously mentioned emergency department were included in this study.

Tools of the study:
Tool: “Violence assessment questionnaire”

This tool was developed by the researcher after reviewing the related literature,[8,9,10] and used to assess the relationship between patients and visitors’ violence and emergency nurses work productivity. This tool is consisted of twenty one questions. These questions focusing on the verbal, physical and sexual abuse from patient and visitors toward the emergency nurses and it is effect on work productivity.

- In addition to the nurses’ characteristics which included demographic data such as age, sex, marital status and job related data such as nurses’ qualification, job title and work place.
- Permission to conduct the study was obtained from the hospitals’ responsible authority after explanation of the aim of the study.
- Tool “violence assessment questionnaire” was developed by the researcher based on reviewing the related literature.[8,9,10]
- Content validity was done for tool by five experts in the fields of critical care and emergency nursing and the necessary modifications were done accordingly.
- A pilot study was conducted on ten emergency care nurses to test the tool for the clarity, objectivity, feasibility, then necessary modifications were carried out and the results were excluded from the study.
- The reliability was tested for tool “violence assessment questionnaire” by using Cronbach’s coefficient alpha (r = 85.6) which is acceptable.

Data collection:
- All emergency care nurses were given verbal and written, detailed information about the study and were given the opportunity to discuss any issues in need for clarification.
When the necessary information was given, the participants nurses were asked to sign a consent form. Data were collected from 100 emergency care nurses who are involved in providing direct patient care. An open channel of communication was established between the researcher and emergency care nurses to verify any misconception. The researcher respects all the participant answers for questions. Data was collected by the researcher during approximately three months starting from 30th January 2017 to 30th April 2017.

Statistical analysis:
The raw data were coded and transformed into coding sheets. The results were checked. Then, the data were entered into SPSS system files (SPSS package version 18) using personal computer. Output drafts were checked against the revised coded data for typing and spelling mistakes. Finally, analysis and interpretation of data were conducted.

The following statistical measures were used:
- Descriptive statistics including frequency, distribution, mean, and standard deviation were used to describe different characteristics.

### Table (1): Distribution of emergency nurses according to their demographic characteristics

| Demographic data                        | Group N= 100 |
|-----------------------------------------|--------------|
|                                         | No. | %   |
| Gender                                  |     |     |
| Male                                    | 34  | 34.0|
| Female                                  | 66  | 66.0|
| Age (years)                             |     |     |
| 21 – 30                                 | 63  | 63.0|
| 31 – 40                                 | 27  | 27.0|
| >40                                     | 10  | 10.0|
| Mean ± SD                               |     |     |
|                                         | 30.63 ± 6.66|
| Marital status                          |     |     |
| Single                                  | 56  | 56.0|
| Married                                 | 36  | 36.0|
| Divorced                                | 5   | 5.0 |
| Widow                                   | 3   | 3.0 |
| Qualification                           |     |     |
| Bachelor degree                         | 81  | 81.0|
| Diploma degree                          | 12  | 12.0|
| Master degree                           | 4   | 4.0 |
| Doctoral degree                         | 3   | 3.0 |
| Which category best describes your present position? | | |
| Staff nurse                             | 75  | 75.0|
| Head nurse                              | 9   | 9.0 |
| Supervisor                              | 16  | 16.0|
| How many years of work experience in the health sector do you presently have? | | |
| < one year                              | 27  | 27.0|
| 1<5 years                               | 27  | 27.0|
| 5<10 years                              | 34  | 34.0|
| >10 years                               | 12  | 12.0|

Table (II) shows distribution of emergency nurses according to their history of exposure to workplace violence. It was found that the majority of them (76%) have been verbally abused in their workplace in the last 12 months.

The significance of the result was at the 5% level of significance.

**Ethical considerations:**
- The researcher explained the objectives of the study orally to the emergency care nurses. In addition to the written explanation on the covering letter of questionnaire.
- Emergency care nurses were assured about the confidentiality of the data collected and the right to refuse to participate in the study.

### 4. Results

Table (I) presents the frequency distribution of emergency nurses according to their demographic characteristics. In relation to age, about two third of nurses (63%) was from 21 to 30 years old. Regarding their qualification, it was found that the majority of them were staff nurses with bachelor degree of nursing (75%), (81%) respectively. In relation to their years of working experience in the health sector, it was found that about one third (34%) of them had experience between five and ten years.
### Table (2): Distribution of emergency nurses according to their history of exposure to workplace violence

| History of exposure to violence                                      | Group N= 100 |
|---------------------------------------------------------------------|--------------|
|                                                                     | No. | %     |
| In the last 12 months, have you been verbally abused in your workplace? |     |       |
| Yes                                                                 | 76  | 76.0  |
| No                                                                  | 24  | 24.0  |
| In the last 12 months, have you been physically abused in your workplace? |     |       |
| Yes                                                                 | 32  | 32.0  |
| No                                                                  | 68  | 68.0  |
| In the last 12 months, have you been sexually abused in your workplace? |     |       |
| Yes                                                                 | 34  | 34.0  |
| No                                                                  | 66  | 66.0  |
| How often have you been abused in the last 12 months?                |     |       |
| All the time                                                        | 6   | 6.0   |
| Sometimes                                                           | 47  | 47.0  |
| Once                                                                | 20  | 20.0  |
| Non                                                                 | 27  | 27.0  |

Table (III) explains the distribution of emergency nurses according to their response for verbal abuse. This study shows that about half of emergency nurses (53%) were abused by relatives of patients. It also revealed that, two third of the emergency nurses (65%) were working in CPR unit. Regarding their response to abuse, less than half of them didn’t react to abuse at all and also didn’t have repeated, disturbing memories, thoughts, or images of the abuse (48%, 47% respectively). The study revealed that two third of them had reported no action taken to investigate the causes of abuse. More than half of studied emergency nurses (58%) were dissatisfied about the manner in which the incident was handled.

### Table (3): Distribution of emergency nurses according to their response for verbal abuse

| Response to verbal abuse                                                                 | Group N= 100 |
|--------------------------------------------------------------------------------------------|--------------|
|                                                                                           | No. | %     |
| Last time you were verbally abused in your place of work. Who abused you?                   |     |       |
| Patient/client                                                                            | 47  | 47.0  |
| Relatives of patient/client                                                                | 53  | 53.0  |
| Where did the abuse take place?                                                             |     |       |
| CPR                                                                                        | 65  | 65.0  |
| Trauma                                                                                    | 35  | 35.0  |
| How did you respond to the abuse?                                                           |     |       |
| Told friends/ family                                                                       | 12  | 12.0  |
| Reported it to a senior staff member                                                        | 24  | 24.0  |
| Pursued prosecution                                                                        | 16  | 16.0  |
| No reaction                                                                              | 48  | 48.0  |
| Do you have repeated, disturbing memories, thoughts, or images of the abuse?               |     |       |
| Seldom                                                                                    | 0   | 0.0   |
| Sometimes                                                                                 | 28  | 28.0  |
| Never                                                                                    | 47  | 47.0  |
| Do you avoid thinking about or talking about the abuse or avoiding having feelings related to it? |     |       |
| Always                                                                                     | 18  | 18.0  |
| Often                                                                                      | 15  | 15.0  |
| Seldom                                                                                    | 0   | 0.0   |
| Sometimes                                                                                 | 40  | 40.0  |
| Never                                                                                    | 27  | 27.0  |
| Are you super-alert after exposed to violence?                                             |     |       |
| Yes                                                                                       | 25  | 25.0  |
| No                                                                                        | 75  | 75.0  |
| Do you think the incident could have been prevented?                                       |     |       |
| Yes                                                                                       | 32  | 32.0  |
| No                                                                                        | 68  | 68.0  |
Was any action taken to investigate the causes of the abuse?

| Yes | No |
|-----|----|
| 69  | 31 |
| 69.0| 31.0|

What were the consequences for the abuser?

| None | Verbal warning | Care discontinued | Reported to police | Aggressor prosecuted |
|------|---------------|-------------------|--------------------|---------------------|
| 28   | 52            | 8                 | 6                  | 6                   |
| 28.0 | 52.0          | 8.0               | 6.0                | 6.0                 |

How satisfied are you with the manner in which the incident was handled?

| Satisfied | Dissatisfied |
|-----------|--------------|
| 42        | 58           |
| 42.0      | 58.0         |

Table (IV) describes distribution of studied emergency nurses according to effect of violence upon them. It was found that more than two third of nurses (68%) had a negative effect on their work productivity after exposure to violence. The majority of them (77%) also were emotionally exhausted and didn’t be able to continue their work on their job.

Table (4): Distribution of emergency nurses according to the effect of violence upon them

| Effects of violence upon nurses | Group N= 100 |
|--------------------------------|--------------|
| If you exposed to violence, did it affect your productivity in work? | No. | % |
| Yes                           | 68  | 68.0 |
| No                            | 32  | 32.0 |
| After exposure to violence, did you feel emotionally exhausted? | No. | % |
| Yes                           | 77  | 77.0 |
| No                            | 23  | 23.0 |
| After exposure to violence, did you feel it's hard to deal with patient? | No. | % |
| Yes                           | 45  | 45.0 |
| No                            | 55  | 55.0 |
| Do you think you can be able to continue working at this job? | No. | % |
| Yes                           | 81  | 81.0 |
| No                            | 19  | 19.0 |

Table (V) presents relationship between demographic data of studied emergency nurses and effect of violence on their work productivity, emotional feeling, and ability to deal with patient and continue working at this job. It was found that statistical significant relationship between gender, marital status, qualification, position and years of experiences of studied emergency nurses with the effect of violence on their work productivity and emotional feeling (X2=30.083)<0.001*, (X2=16.629) <0.001*, (X2=7.993)<0.031*, (X2=21.396)<0.001*, (X2=9.543) =0.023*, respectively. The same table revealed that statistical significant differences between gender, marital status and qualification of studied emergency nurses and emotional feeling after exposure to violence(X2=12.972) <0.001*, (X2=8.556) <0.30, (X2=12.070) =0.003* respectively. The same table indicates also that statistical significant relationship between gender and qualification of studied emergency nurses and effect of violence on their ability to deal with patient after exposure to violence (X2=7.146) =0.008*, (X2=11.817) =0.003* respectively. The statistical significant differences between emergency nurses qualification, job category, years of experiences and ability of nurses to continuing the work at emergency unit X2(P) (X2=44.066) <0.001*, (X2=7.650) =0.017*, (X2=11.237) =0.011*.

Table (5): Relationship between demographic data of studied emergency nurses and effect of violence upon them

| Demographic data | If you exposed to violence, do that effect on your work productivity? | After exposed to violence, did you feel emotionally exhausted? |
|------------------|---------------------------------------------------------------------|-----------------------------------------------------------------|
|                  | No (n= 32) | Yes (n = 68) | No. | % | No. | % | No. | % | No. | % |
| Gender           |            |              |     |   |     |   |     |   |     |   |
| Male             | 23         | 71.9         | 11  | 16.2| 15  | 65.2| 19  | 24.7|
| Female           | 9          | 28.1         | 57  | 83.8| 8   | 34.8| 58  | 75.3|
| Z*(P)            | 30.083 (<0.001 *) | 12.972 (<0.001 *) |
| Age (years)      |            |              |     |   |     |   |     |   |     |   |
| 21 – 30          | 17         | 53.1         | 46  | 67.6| 11  | 47.8| 52  | 67.5|
| 31 – 40          | 12         | 37.5         | 15  | 22.1| 9   | 39.1| 18  | 23.4|
| >40              | 3          | 9.4          | 7   | 10.3| 3   | 13.0| 7   | 9.1|
| Marital status       | No (n= 55) | %    | No (n= 45) | %    | No (n= 19) | %    | No (n= 81) | %    |
|----------------------|------------|------|------------|------|------------|------|------------|------|
| Single               | 16         | 50.0 | 12         | 52.2 | 44         | 57.1 |
| Married              | 8          | 25.0 | 8          | 34.8 | 28         | 36.4 |
| Divorced             | 5          | 15.6 | 0          | 0.0  | 0          | 5.6  |
| Widow                | 3          | 9.4  | 3          | 13.0 | 0          | 0.0  |
| **χ²(p)**            | 2.668 (0.263) |      | 2.996 (0.224) |      |            |      |

| Qualification        | No (n= 55) | %    | No (n= 45) | %    | No (n= 19) | %    | No (n= 81) | %    |
|----------------------|------------|------|------------|------|------------|------|------------|------|
| Bachelor degree      | 27         | 84.4 | 20         | 87.0 | 61         | 79.2 |
| Diploma degree       | 2          | 6.3  | 0          | 0.0  | 12         | 15.6 |
| Master degree        | 0          | 0.0  | 0          | 0.0  | 4          | 5.2  |
| Doctoral degree      | 3          | 9.4  | 3          | 13.0 | 0          | 0.0  |
| **χ²(MC) p**         | 16.629 (<0.001) |      | 8.556 (0.30) |      |            |      |

| Which category best describes your present position? | No (n= 55) | %    | No (n= 45) | %    | No (n= 19) | %    |
|------------------------------------------------------|------------|------|------------|------|------------|------|
| Staff nurse                                          | 20         | 62.5 | 17         | 73.9 | 58         | 75.3 |
| Head nurse                                           | 9          | 28.1 | 3          | 13.0 | 0          | 7.8  |
| Supervisor                                           | 3          | 9.4  | 3          | 13.0 | 13         | 16.9 |
| **χ²(p)**                                            | 7.993 (0.031) |      | 12.070 (0.003) |      |            |      |

| How many years of work experience in the health sector do you presently have? | No (n= 55) | %    | No (n= 45) | %    | No (n= 19) | %    |
|-------------------------------------------------------------------------------|------------|------|------------|------|------------|------|
| < one year                                                                    | 3          | 9.4  | 3          | 13.0 | 24         | 31.2 |
| 1-5 years                                                                     | 8          | 25.0 | 7          | 30.4 | 20         | 26.0 |
| 5-10 years                                                                    | 16         | 50.0 | 10         | 43.5 | 24         | 31.2 |
| >10 years                                                                      | 5          | 15.6 | 3          | 13.0 | 9          | 11.7 |
| **χ²(p)**                                                                      | 21.396 (<0.001) |      | 0.864 (0.722) |      |            |      |

Table (5): Relationship between demographic data of studied emergency nurses and effect of violence upon them cont.

**After exposed to violence, did you feel it's hard to deal with patient/client?**

| Demographic data | No exposed to violence | Yes exposed to violence | Do you think you can able to continue working at this job? |
|------------------|-------------------------|-------------------------|----------------------------------------------------------|
| **Gender**       |                         |                         |                                                         |
| Male             | 25                      | 45.5                    | 9                                                       | 20.0 | 9           | 47.4 | 25           | 30.9 |
| Female           | 30                      | 54.5                    | 36                                                      | 80.0 | 10          | 52.6 | 56           | 69.1 |
| **χ²(p)**        | 7.146 (0.008)           |                         |                                                         |

| Age (years)      | No exposed to violence | Yes exposed to violence | Do you think you can able to continue working at this job? |
|------------------|-------------------------|-------------------------|----------------------------------------------------------|
| 21 – 30          | 37                      | 67.3                    | 26                                                      | 57.8 | 13          | 68.4 | 50           | 61.7 |
| 31 – 40          | 15                      | 27.3                    | 12                                                      | 26.7 | 3           | 15.8 | 24           | 29.6 |
| >40              | 3                       | 5.5                     | 7                                                       | 15.6 | 3           | 15.8 | 7            | 8.6  |
| **χ²(p)**        | 2.883 (0.237)           |                         |                                                         |

| Marital status   | No exposed to violence | Yes exposed to violence | Do you think you can able to continue working at this job? |
|------------------|-------------------------|-------------------------|----------------------------------------------------------|
| Single           | 35                      | 63.6                    | 21                                                      | 46.7 | 10          | 52.6 | 46           | 56.8 |
| Married          | 14                      | 25.5                    | 22                                                      | 48.9 | 9           | 47.4 | 27           | 33.3 |
| Divorced         | 3                       | 5.5                     | 2                                                       | 4.4  | 0           | 0.0  | 5            | 6.2  |
| Widow            | 3                       | 5.5                     | 0                                                       | 0.0  | 0           | 0.0  | 3            | 3.7  |
| **χ²(MC) p**     | 7.147 (0.051)           |                         |                                                         |

| Qualification    | No exposed to violence | Yes exposed to violence | Do you think you can able to continue working at this job? |
|------------------|-------------------------|-------------------------|----------------------------------------------------------|
| Bachelor degree  | 49                      | 89.1                    | 32                                                      | 71.1 | 7           | 36.8 | 74           | 91.4 |
| Diploma degree   | 3                       | 5.5                     | 9                                                       | 20.0 | 12          | 63.2 | 0            | 0.0  |
| Master degree    | 0                       | 0.0                     | 4                                                       | 8.9  | 0           | 0.0  | 4            | 4.9  |
| Doctoral degree  | 3                       | 5.5                     | 0                                                       | 0.0  | 0           | 0.0  | 3            | 3.7  |
| **χ²(MC) p**     | 11.817 (0.003)          |                         |                                                         |

**Which category best describes your present position?**

| Demographic data | No exposed to violence | Yes exposed to violence | Do you think you can able to continue working at this job? |
|------------------|-------------------------|-------------------------|----------------------------------------------------------|
| Staff nurse      | 42                      | 76.4                    | 33                                                      | 73.3 | 15          | 78.9 | 60           | 74.1 |

**χ²: Chi square test, MC: Monte Carlo, p: p value for comparing between the two categories, *: Statistically, significant at p ≤ 0.05.**
Physical violence against nurses has become an endemic problem affecting nurses in all settings. Researchers have identified that physical violence affects nurses in nearly all work environments and all regions of the world. Consequences of physical violence for the nurse include acute stress, posttraumatic stress symptoms, decreased work productivity, physical injury, and death. While work-related deaths have a rare occurrence in health care settings, Janocha and Smith (2010)\(^6\) reported that fatal injuries to workers between 2003 and 2007 were increasing yearly in the health care and social assistance sector due to workplace violence. Therefore, this study was conducted to assess the effect of patients, visitors' violence and emergency nurses' work productivity.

Results of the current study revealed that, the majority of emergency nurses had been verbally abused in their workplace in the last 12 months, while about one third of them had been physically abused in their workplace. These results were in line with Enfermi inquiry (2016)\(^12\) conducted by the regional nursing council of São Paulo. It reported that the majority of nurses had recurrent violence in their workplace; half of them had suffered aggression two times or more. In contrast to the result of the current study, Ahmed AS 2016\(^13\) evaluated the occurrences in the past six months of workplace verbal and physical abuse of nurses who worked in hospitals in Amman (Jordan), there was slightly more than one third of nurses were predisposed to verbal abuse while about twenty percent of them had physical abuse.

This study revealed that the majority of nurses have been verbally abused in their workplace in the last 12 months and half of all abused cases resulted from relatives of patients. This was in line with (Campbell et al, (2011)\(^14\) and Fujita et al (2012)\(^15\) a multinational European study that concluded that more than half of abused nurses were in emergency department and were caused by patients or visitors on a daily, weekly, or monthly basis.

Workplace violence in nursing has its effects on workers’ health for decreasing general health, mental health, and vitality scores, as observed in nurses who felt threatened. Results of the current study concluded that about half of nurses didn’t react to abuse situation and also didn’t have repeated, disturbing memories, thoughts, or images of the abuse. In opposition to the current study findings, (Gillespie et al., 2010)\(^16\) (Magnavita & Heponiemi, 2011)\(^17\) and (Samir et al., 2012)\(^18\) study concluded that nurses shared a common responses for being a victim of physical violence in the workplace that includes becoming fearful, angry, frustrated, and helpless. Nurses also commonly exhibit signs of posttraumatic stress after physical violence. (AbuAlRub & Al-Asmar, 2011)\(^19\) (Gates, Gillespie, & Succop, 2011)\(^20\) (Gillespie et al., 2010; Pai & Lee, 2011)\(^16\) also reported that nurses reaction for being abused include signs as consciously avoiding opportunities to talk about the event, having recurrent flashbacks about the event, and having a heightened state of arousal leading to poor sleeping. (Gates, Gillespie, and Succop 2011)\(^20\) found that the majority of their national cross-sectional sample of emergency nurses had some degree of posttraumatic stress symptomatology.

This study shows that more than two third of nurses had a negative effect on their work productivity after exposure to violence. They also feel emotionally exhausted and don’t be able to continue their work on their job. This was in line with the study of Boafo (2018)\(^21\) shows that the overall mean job satisfaction among studied nurses who experienced workplace violence was significantly lower than those who did not experienced it. Significantly, forty percent of those who did not experienced workplace violence, and more than half of patients who experienced it reported that not preferring to work in their present jobs due to violence. About half of the nurses who experienced violence reported their tendency to leave the job due to violence, and one third of them are searching for a career rather than nursing, while the majority of those did not experienced violence have no tendency to leave and the majority in both groups reported that they aren’t searching for a career other than nursing. It was supported also by (Esalamian, Akbarpour, & Hoseini, 2015)\(^22\) study that reported a negative correlation between violence at work and nurses’ life quality. Moreover, violence at work decreases nurses’ job satisfaction.

Demir et al (2012)\(^23\) studied consequences of workplace violence toward nurses and reported increased levels of psychological distress related to bullying and verbal sexual harassment suffered by nurses and midwives. These consequences indicate initially that workplace violence is not restricted to the workplace, it can also be harmful to worker’s health and consequently to his or her life. Also, Ahmed (2016)\(^23\) studied effects of verbal and physical abuse against jordanian nurses in the work environment and concluded disturbed social and family life of nurses. Boafo I (2018)\(^21\) studied effects of violence on nurses job satisfaction in Ghana and found that nurses who experienced verbal abuse and low level of respect were more likely to report low job satisfaction scores.

The present study showed that more than half of abused nurses were female nurses with age 21-30 years old, staff nurses with bachelor degree and had less than one year of experience in the emergency room. They had experienced more workplace verbal

| Head nurse | 7 | 12.7 | 2 | 4.4 | 4 | 21.1 | 5 | 6.2 |
| Supervisor | 6 | 10.9 | 10 | 22.2 | 0 | 0.0 | 16 | 19.8 |
| \(\chi^2\) (\(p\)) | 3.739 (0.165) | | 7.650 (0.017) | |

\(\chi^2\): Chi square test, MC: Monte Carlo, \(p\): p value for comparing between the two categories, *: Statistically significant at \(p \leq 0.05\)
and physical abuse and they found it hard to deal with patient or to continue work as they had decreased productivity in their work. This was agreed with Ahmed (2016) that reported that more than half of nurses are expected to suffer violence at some point in his or her career and it was associated with decreased level of experience. Younger nurses in this study were more likely to have been subjected to either forms of violence. This findings were consistent with Alameddine (2015), Gacki-Smith (2010). This also was further supported by the finding of Moustafa (2013) and Hahn (2012) that related level of violence to nurses with decreased years of experience. This could be attributed to younger nurses’ inexperience in managing violent situations. The finding may also be attributable to the “healthy worker effect”, where nurses who did not experience violence or are better able to deflect violent incidents may have an effect on remaining in their workplace.

7. Recommendation

Based on the findings of the present study, the following recommendation can be suggested:

6.1. Nursing education

1. Prevention and educational programs should be applied to emphasize on how to deal with work violence especially in emergency department.

6.2. Nursing administration

1. There should be workplace policies and procedures that focus on maintaining safety working environment.
2. There should be reporting system for occurrence of violence against health care workers.

6.3. Nursing research

1. Future research should be conducted to identify the best possible practices for prevention of violence
2. Further research also needs to be conducted to provide management strategies against work violence to improve work productivity.

8. References

[1] Aelexia Fernández Campbell. (2016). Why violence against nurses has spiked in the last decade.
[2] Luck L, Jackson D & Usher K. (2015). Innocent or culpable? Meanings that emergency department nurses ascribe to individual acts of violence. Journal of clinical nursing, 17, 1071-8.
[3] Trimble, N. (2010). Action plan for airway hell web article from emergency nursing world! June 24.
[4] Occupational safety and health administration (osha). (2015). Guidelines for preventing workplace violence for healthcare and social service workers.
[5] International labour office, international council of nurses, world health organization, & public services international. (2002). Framework guidelines for addressing workplace violence in the health sector. Joint programme on workplace violence in the health sector.
[6] Homeyer C, (2015). Violence against nurses: ‘zero tolerance’ for violence against nurses and nursing students. The registered nurses’ association of ontario (rmao).
[7] Morrison, L. (2012). Abuse of emergency department workers: an inherent career risk or a barometer of the evolving health care system? Canadian medical association journal. Vol. 161. No. 10, 1262-1263.
[8] May D. & Grubbs L. (2002). The extent, nature, and precipitating factors of nurse assault among three groups of registered nurses in a regional medical center. Journal of emergency nursing. 28(1), 11-7.
[9] Lipscomb J, Silverstein B, Slavin T, Cody E. & jenkins l. (2002). Perspectives on legal strategies to prevent workplace violence. Journal of law, medicine and ethics, 30(3), 166- 72.
[10] Violence against nurses working in u.s. (2009). Emergency departments: journal of nursing administration.
[11] Janocha, J, Smith T. (2010). Workplace safety and health in the health care and social assistance industry, 2003-07. Retrieved from www.bls.gov/opub/cwc/sh20100825ar01p1.htm
[12] Enfer I, Bordignon M, Monteiro M. (2016). Violence in the workplace in nursing: consequences overview. Rev bras enferm.
[13] Ahmed A. Verbal and physical abuse against jordanian nurses in the work environment. East mediterr health journal. 2016; 18(4):318-24.
[14] Campbell C, Messing T, Kub J, Agnew J, Fitzgerald S, Fowler B, Bolyard R. (2011). Workplace violence: prevalence and risk factors in the safe at work study. Journal of occupational and environmental medicine, 53(1), 82-9.
[15] Fujita S, Seto K, Kitazawa T, Matsumoto K, & Hasegawa T. (2012). Risk factors of workplace violence at hospitals in japan. Journal of hospital medicine. 7, 79-84.
[16] Gillespie L., Gates M., Miller M & Howard K. (2010). Violence against healthcare workers in a pediatric emergency department. Advanced emergency nursing journal, 32(1), 68-82.
[17] Magnavita, N., & Hepsoniemi, T. (2011). Workplace violence against nursing students and nurses: an italian experience. Journal of nursing scholarship, 43(2), 203-10.
[18] Samir N, Mohamed R, Moustafa E, Saif A. (2012). Nurses’ attitudes and reactions to workplace violence in obstetrics and gynaecology departments in cairo hospitals. Eastern mediterranean health journal, 18(3), 198-204.
[19] Abualrub F, Al-asmar H. (2011). Physical violence in the workplace among jordanian hospital nurses. Journal of transcultural nursing, 22, 157-65.
[20] Gates M, Gillespie L, Succop P. (2011). Violence against nurses and its impact on stress and productivity. Journal of nursing economic, 29(2), 59-66.
[21] Boafo I. (2018). The effects of workplace respect and violence on nurses’ job satisfaction in ghana: a cross-sectional survey. Human resources health. 16: 6.
[22] Eslamian j, Akhbarpoor a, hoseini s. (2015). Quality of work life and its association with workplace violence of the nurses in emergency departments. iranian journal of nursing and midwifery research.; 20(1):56-62.
[23] Demir d, Rodwell j. (2012). Psychosocial antecedents and consequences of workplace aggression for hospital nurses. journal of nurs scholarsh. 44(4):376-84.

[24] ALAMEDDINE M, MOURAD Y, AND DIMASSI H. (2015). A NATIONAL STUDY ON NURSES’ EXPOSURE TO OCCUPATIONAL VIOLENCE IN LEBANON: PREVALENCE, CONSEQUENCES AND ASSOCIATED FACTORS. PLOS ONE.; 10(9)

[25] GACKI-SMITH J, JUAREZ M, BOYETT L, HOMeyer C, ROBINSON L, MACLEAN L. (2010). VIOLENCE AGAINST NURSES WORKING IN US EMERGENCY DEPARTMENTS. J HEALTHC PROT MANAGE;26(1):81–99.

[26] MOUSTafa S, GEWAIFEL I. (2013). WORK-RELATED VIOLENCE AMONG FEMALE EMPLOYEES IN A UNIVERSITY HOSPITAL IN ALEXANDRIA: AN EPIDEMIOLOGIC STUDY. JOURNAL OF AMERICAN SCIENCE;9(3):243–50.

[27] HAHN S, HANTIKAINEN V, NEEDHAM I, KOK G, DASSEN T, HALFENS J. (2012). PATIENT AND VISITOR VIOLENCE IN THE GENERAL HOSPITAL, OCCURRENCE, STAFF INTERVENTIONS AND CONSEQUENCES: A CROSS-SECTIONAL SURVEY. JOURNAL OF ADVANCED NURSING; 68(12):2685–99.

*Corresponding Author -

Fayza Ahmed Abdou
Critical Care and Emergency Nursing Department, Faculty of Nursing, Assuit University, Assuit, Egypt)