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Assessment of Knowledge and Awareness of Emergency Nurses regarding Secondary Traumatic Stress in Emergency Unit

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Abstract
Background: Secondary traumatic stress known as compassion fatigue or vicarious trauma, is a psychological condition that affects nurses who are indirectly exposed to traumatic events or experiences through their work or close relationships with those directly affected. **Aim of the study:** To assess of knowledge and awareness of emergency nurses regarding secondary traumatic stress at emergency unit. **The Research design:** A descriptive research design was used in this research . **Setting:** This study subject was conducted in emergency department of at both El-Odessat Hospital and Assiut University. **Sample:** A convenience sample of all intensive care nurses working in the aforementioned settings, who provide direct care to critically ill patients, was included. The tools,: Two tools were utilized in this study. **Tool I:** Emergency nurses' assessment tool and **Tool II:** Secondary traumatic stress scale. **Results:** It was found that 56 % from nurses had satisfactory knowledge regarding secondary traumatic stress, 38 % from nurses had fair awareness while 28% from nurses had good level of awareness with mean & standard deviation 2.42±.966. **Conclusion:** Most critical care nurses exhibited satisfactory knowledge of secondary traumatic stress, with nearly 40% demonstrating fair awareness. There was no significant relationship between total knowledge and awareness scores. **Recommendations:** Enhancing education and training programs on secondary traumatic stress within nursing curricula and workplace settings is essential for improving awareness among emergency nurses.

Keywords: Awareness, Emergency Nurses, Secondary Traumatic Stress & Emergency unit

Introduction
Secondary traumatic stress (**STS**), also known as compassion fatigue or vicarious trauma, is a psychiatric syndrome that affects people who are indirectly exposed to horrific events or experiences through their jobs or personal connections with others who have been directly impacted. Emergency responders, including as paramedics, firemen, police officers, and healthcare workers, are at significant risk of acquiring secondary traumatic stress because to repeated exposure to stressful and traumatic events. **(Ogińska et al., 2021).**

Nursing professionals are frequently subjected to professional stress, including traumatic stress. Medical practitioners are indirectly exposed to trauma when aiding patients who have been through it. Accidents, violence, and major, life-threatening illnesses are all examples of trauma. The phrase vicarious traumatic exposure has been used to define indirect traumatic exposure. **(Gurowiec et al., 2022).** The symptoms are similar to persons suffering posttraumatic stress disorder (PTSD). and It may involve intrusive thoughts or memories: recurring, upsetting thoughts or pictures associated with the traumatic incident. Emotional distress: Feelings of sadness, anxiety, or irritability that may be triggered by reminders of the traumatic event. Avoidance behaviors: Avoiding situations, people, or places that remind the individual of the traumatic incident **(Rayner et al., 2020).**

The caused of exposure to secondary traumatic stress to highly stressful or traumatic situations, can have an influence on compassion fatigue, and a growing body of evidence indicates that this syndrome is frequent among nurses. Secondary traumatic stress affects an estimated 39.0-76.9% of nurses in various departments, most notably emergency, cancer therapy, psychiatric, and pediatric. Burnout has a significant detrimental influence on healthcare personnel' capacity to deliver treatment and do other professional activities, as well as interfere with the exercise of professional judgment. So, study on secondary traumatic stress observed within the nursing community is critical. **(Rayani et al., 2024).**

Some ways for managing secondary traumatic stress: Self-care refers to activities that enhance physical, emotional, and mental well-being, such as exercise, hobbies, and spending time with loved ones. Emotional support: Seeking out colleagues, friends,

family, or mental health specialists who can listen and understand. Emergency responders may share their stories, process their feelings, and find validation. Education and Awareness: Understanding secondary traumatic stress, its symptoms, and coping mechanisms can help individuals detect its impact and take preventative steps (**Ogińska et al**., **2022**).

Significance of the study:

The prevalence of PTSD (posttraumatic stress disorder) in national samples of the general adult population in the US and Canada ranges from 6.1 to9.2 percent, with one-year prevalence rates ranging from 3.5 to 4.7%.Studying the awareness of emergency nurses regarding secondary traumatic stress is significant for the well-being of healthcare providers, the quality of patient care, and the overall functioning of healthcare organizations. By understanding their knowledge
and awareness levels, tailored interventions can be implemented to support nurses and mitigate the potential negative impact of STS on their professional and personal lives **Ratrout, & Hamdan-Mansour, (2020).**

By increasing awareness of STS and implementing strategies to address it, healthcare organizations can support emergency nurses in managing the potential impact of their work on their well-being. It is essential to prioritize the mental health of emergency nurses to ensure the provision of high-quality care and promote their long-term resilience and job satisfaction **(Vagni et al., 2020).**

So, this study will assess the nurses level of awareness about the secondary traumatic stress in emergency places.

The study aim:

To assess of knowledge and awareness of emergency nurses regarding secondary traumatic stress at emergency unit.

Research question:

What is the level of awareness of emergency nurses regarding secondary traumatic stress disorder in emergency department.

Subject and Methods:

Research design: Descriptive design was used in this study.

The Setting is:

This study will be conducted in emergency department of at both El- odessat Hospital Emergency department and Assiut University Hospital Emergency department.

Sampling:

The study subject included all emergency nurses (100) working in emergency department of at both El-odessat Hospital and Assiut University Hospital.

The sample of study included all the nurses staff working in all emergency department of El-odessat Hospital and Assiut University Hospital. (50 nurses from emergency department at Assiut University Hospital , 50 nurses from ED of El-odessat Hospital). Total number of the subjects was 100 nurses.

Inclusion critreia :

- Male and female
- Nurses working in Emergency department
- Nurses doing bedside care
- Nurses from (22- 48 years old)

Exclusion criteria:

- Nurses not work in Emergency unit
- Nursing with less than one year experience
- Nursing not doing in bedside care
- older than 50 years old

Tools for Data Collection:

Two tools were utilized in this study:

Tool (I): Emergency Nurses' Assessment Tool:

This tool was developed by the researcher based on a literature review **(Gurowiec et al., 2022)** and translated into Arabic. It comprises two parts:

Part (1): Demographic Characteristics of Nurses

This section includes 8 closed-ended questions related to demographic information such as age, gender, marital status, level of education, total years of experience in the emergency department (ED), participation in training courses, and perceived benefits from these courses.

Part (2): Nurses' Knowledge Questionnaire on Secondary Traumatic Stress

This questionnaire was designed by the researcher based on relevant literature **(Morrison & Joy, 2016).** Data were collected through interviews conducted with nurses during their working hours. The questionnaire addresses various aspects, including the definition, causes, symptoms, diagnosis, management, prevention, and nursing roles related to secondary traumatic stress.

Scoring System:

Responses were scored as follows:

- **Correct:** 2 points
- **Partially Correct:** 1 point
- **Incorrect:** 0 points

The total score was classified as:

- **Satisfactory Level:** More than 75% of the total score
- **Unsatisfactory Level:** Less than 75% of the total score

Tool II: STS (secondary trumatic stress) scale:

This tool used to assess nurses performance regarding secondary traumatic stress, it measured the

STS symptoms. The STSS is 17 items measuring the incidence of Secondary trumatic stress symptoms within the last week and incorporates three : subscales:and intrusionand avoidance, and arousal **(Rushforth et al., 2023).**

Scoring system :
The STSS has high internal consistency reliability; (α = .94). **(Beck, & Gable, 2012).** were consulted to analyze data on STSS. Accordingly, score less than35% Range (17-34) indicates poor STS; 35 Less than 52% Range (35-52) indicates Fair STS; 35 Less than 75% Range (53-70) indicates Good STS; More than 75% Range (71-88) indicates Very good STS.

Methods:

Methods:

Data Collection Technique: The study was conducted through the following phases :

Preparatory phase:

Official approval from the competent head of Assiut University Hospital will be obtained to perform the study.

The study tools will be designed after extensive literature review.

Pilot Study:

- A pilot study was conducted on 10% of the study participants (n=10 nurses), who were randomly selected from the specified setting and later included in the study sample.
- The purpose of the pilot study was to evaluate the applicability, feasibility, practicability, and clarity of the designed tools. It also helped determine the time required for each participant to complete the study tools.
- Based on the results of the pilot study, no modifications were deemed necessary for the tools.

Content validity and Reliability

Validity: It will be established to assure the content validity by a panel of 5 expertise's in medicine and medical surgical nursing at Assuit University (1 Professors from medicine faculty and 4 Professors from nursing faculty) who revised the tools for clarity. relevance, comprehensiveness, understanding, and ease for implementation and according to their opinion miner modification were applied.

Reliability: The correlation coefficient was used to calculate the test's reliability, which was assessed using the Alpha Cronbach's test in this study. Accept tool one
= 0.87, tool two = 0.091.

Ethical consideration:

- The research proposal received approval from the Ethical Committee of the Faculty of Nursing, ensuring compliance with institutional ethical guidelines.
- No risks were identified for participants during the course of the study.
- The study adhered to established ethical principles commonly applied in clinical research.
- Informed consent was obtained from nurses who voluntarily agreed to participate after being provided with a full explanation of the study's purpose and procedures.
- Participants were assured that the data collected would be used solely for research purposes.
- Confidentiality and anonymity were guaranteed to protect the participants' privacy.
- Nurses were given the right to decline participation or withdraw from the study at any time, without the need to provide justification.

Phase (II): Data collection:

- First, the investigator introduced himself to the studied nurses and give a brief explanation about the study and its purpose before any data collection.
- Each nurse was interviewed individually to gather the necessary data of the study.
- Data collection had done two days/week by the investigator in the morning and afternoon shifts.
- The required time to collect data from each nurse for about 30-40 minutes.
- interview questionnaire for assessment nurses' knowledge were filled by the researcher using (tool I)
- performance checklist for assessment of nurses' awareness of secondary traumatic stress (STS) used secondary traumatic stress scale were filled by the researcher (tool II)

Statistical analysis:

The collected data was organized, categorized, coded, tabulated and analyzed using the Statistical Package for Social Sciences (SPSS) version 27. Data was presented in tables and figures using numbers and percentages, mean and standard deviation and chi-square was used in order to find an association between two qualitative variables. Statistically significant was considered at P-value < 0.05.

Result:

Table (1): Percentage distribution of nurse`s characteristics (No = 100 nurses)

Variables	No	%
Gender		
Male	51	51.0
Female	49	49.0
Age		
From 20 to less than 30 years old	78	78.0
From 30 less than40 years old	20	20.0
More than 41 years old	2	2.0
Academic qualification		
Technical institute	54	54.0
University education	49	49.0
Years of experience		
Less than 2 years	13	13.0
From :2 less than 5 years old	41	41.0
From 5:10 years	38	38.0
More than 10 years	8	8.0
Specialized training		
Yes	100	100.0
No	0.0	0.0

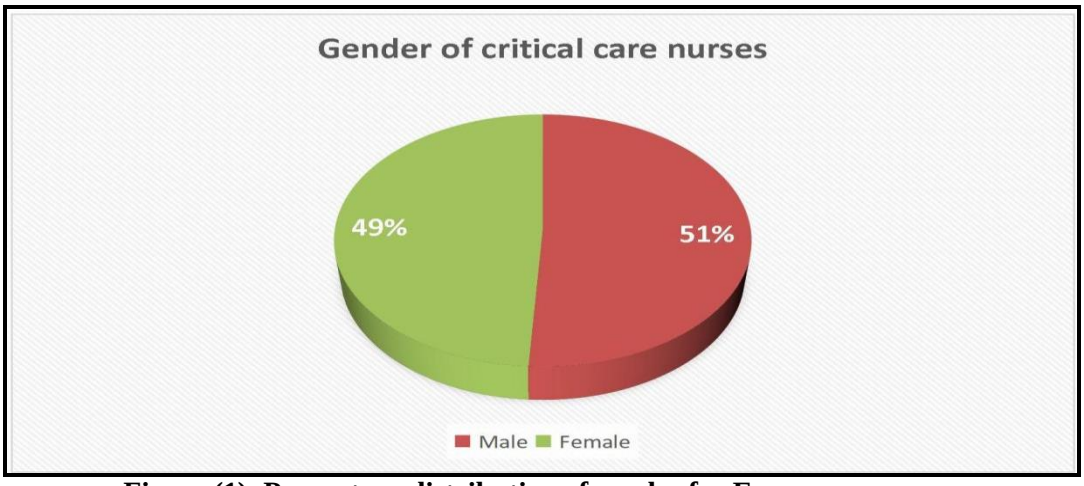

Figure (1): Percentage distribution of gender for Emergency nurses

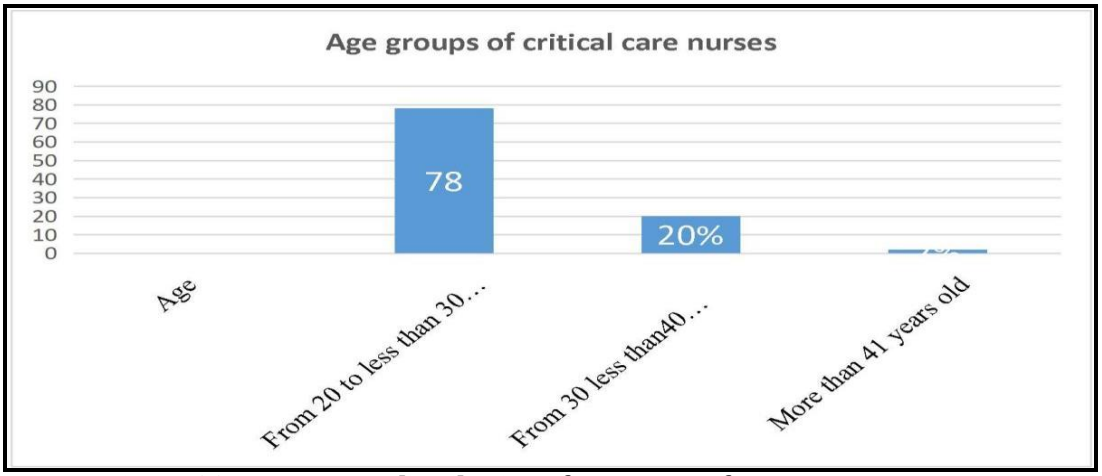

Figure (2): Percentage distribution of age groups for Emergency nurses

Table (2): Percentage Distribution of Nurses' Knowledge Regarding Secondary Traumatic Stress (N = 100) Question

Questions	Yes		No		To some extent	
	No	%	No	%	No	%
Do you know the concept of secondary trauma	94	94.0	6	6.0	0.0	0.0
Do you think secondary trauma affects nurses?	Yes, it affects greatly		Yes, but it has a limited effect		No, it does not affect	
	No	%	No	%	No	%
	89	89.0	10	10.0	1	1.0
Have you experienced secondary trauma during your work as a nurse?	Yes		No		To some extent	
	No	%	No	%	No	%
	87	87.0	13	13.0	0.0	0.0
Do you believe that secondary trauma can be avoided or its impact mitigated?	Yes, it is completely avoidable		Yes, its impact can be significantly mitigated		No, it cannot be avoided or its effect mitigated	
	No	%	No	%	No	%
	72	72.0	27	27.0	1	1.0
Do you feel supported and psychologically cared for in your work environment?	Yes, significantly		Yes, but to a limited extent		No, I do not feel psychological support and care	
	No	%	No	%	No	%
	80	80.0	9	9.0	11	11.0
Do you consider communicating and talking about difficult experiences with colleagues helpful in dealing with secondary trauma?	Yes, significantly		Yes, but to a limited extent		No, I don't consider it useful	
	No	%	No	%	No	%
	84	84.0	15	15.0	1	1.0
Do you receive ongoing training on coping with secondary trauma and self-care?	Yes, on a regular basis		Yes, but to a limited extent		No, I do not receive ongoing training	
	No	%	No	%	No	%
	62	62.0	20	20.0	18	18.0
Do you think that stress management reduce the impact of secondary trauma?	Yes, significantly		Yes, but to a limited extent		No, I don't think so	
	No	%	No	%	No	%
	98	98.0	2	2.0	0	0.0
Do you think that providing psychological support to nurses exposed to secondary trauma should be part of the policies of the hospital/health institution?	Yes, significantly		Yes, but to a limited extent		No, I don't think so	
	No	%	No	%	No	%
	86	86.0	14	14.0	0	0.0
Do you think that providing psychological support to nurses can improving the quality of care?	Yes, significantly		Yes, but to a limited extent		No, I don't think so	
	No	%	No	%	No	%
	98	98.0	2	2.0	0	0.0
Do you think there is a need for increased awareness and education about secondary trauma in nursing?	Yes, significantly		Yes, but to a limited extent		No, I don't think so	
	No	%	No	%	No	%
	100	100.0	0	0.0	0	0.0

Table (3): Percentage distribution of nurse's special knowledge regarding secondary traumatic stress (No = 100)

Questions	True answer		False answer	
	No	%	No	%
What is one method nurses can use to deal with secondary traumatic stress?	88	88.0	12	12.0
What is the role of nursing in early diagnosis of secondary traumatic stress?	75	75.0	25	25.0
What is the importance of the nursing relationship in dealing with secondary traumatic stress?	91	91.0	9	9.0
What strategies can nurses use to deal with secondary traumatic stress?	97	97.0	3	3.0

Questions	True answer		False answer	
	No	%	No	%
What is the role of nursing in promoting awareness of secondary trauma among health professionals?	96	96.0	4	4.0
What is the importance of providing psychological and emotional support to nurses working in health care settings in dealing with secondary traumatic stress?	92	92.0	8	8.0
What is the concept of secondary trauma?	11	11.0	89	89.0
What is one common cause of secondary trauma?	90	90.0	10	10.0
What is one of the symptoms associated with secondary trauma?	100	100.0	0	0.0
How is secondary trauma diagnosed?	5	5.0	95	95.0
What is one strategy used in managing secondary trauma?	96	96.0	4	4.0
What is the role of nursing in dealing with secondary trauma?	8	8.0	92	92.0
What is one of the strategies for preventing secondary trauma?	81	81.0	19	19.0
What is the role of nursing in preventing secondary traumatic stress?	93	93.0	7	7.0
What are important nursing prevention strategies for secondary traumatic stress?	88	88.0	12	12.0
What is the role of nursing in providing care to people with secondary trauma?	91	91.0	9	9.0
What is the importance in nursing of early prevention of secondary traumatic stress?	91	91.0	9	9.0

Table (4): Percentage distribution of nurse`s awareness regarding secondary traumatic stress (No = 100)

Statements	Never		Rarely		Occasionally		Often		Very Often	
	No	%	No	%	No	%	No	%	No	%
I felt emotionally numb	77	77.0	16	16.0	5	5.0	2	2.0	0	0.0
My heart started pounding when I thought about my work with patients	84	84.0	13	13.0	2	2.0	0	0.0	1	1.0
It seemed as if I was reliving the trauma experienced by my patients	67	67.0	18	18.0	14	14.0	1	1.0	0	0.0
I had trouble sleeping	60	60.0	27	27.0	7	7.0	4	4.0	2	2.0
I felt discouraged about the future	61	61.0	26	26.0	7	7.0	6	6.0	0	0.0
Reminders of my work with clients upset me	64	64.0	25	25.0	8	8.0	1	1.0	2	2.0
I had little interest in being around others	64	64.0	27	27.0	5	5.0	3	3.0	1	1.0
I felt jumpy	59	59.0	31	31.0	7	7.0	3	3.0	0	0.0
I was less active than usual	60	60.0	30	30.0	6	6.0	4	4.0	0	0.0
I thought about my work with clients when I didn't intend to	62	62.0	27	27.0	9	9.0	2	2.0	0	0.0
I had trouble concentrating	67	67.0	21	21.0	6	6.0	5	5.0	1	1.0
I avoided people places or things that reminded me of my work with clients	65	65.0	27	27.0	6	6.0	2	2.0	0	0.0
I had disturbing dreams about my work with patients	60	60.0	24	24.0	11	11.0	5	5.0	0	0.0
I wanted to avoid working with some patients	66	66.0	22	22.0	7	7.0	4	4.0	1	1.0
I was easily annoyed	66	66.0	23	23.0	7	7.0	4	4.0	1	1.0
I expected something bad to happened	68	68.0	23	23.0	6	6.0	2	2.0	1	1.0
I noticed gaps in my memory about patients sessions	65	65.0	20	20.0	6	6.0	7	7.0	2	2.0

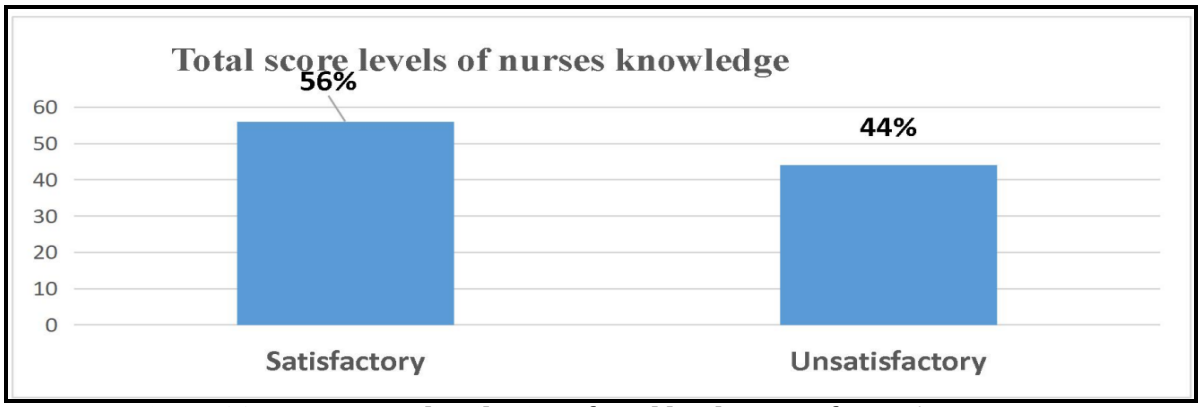

Figure (3): Percentage distribution of total levels score of nurse's knowledge regarding secondary traumatic stress

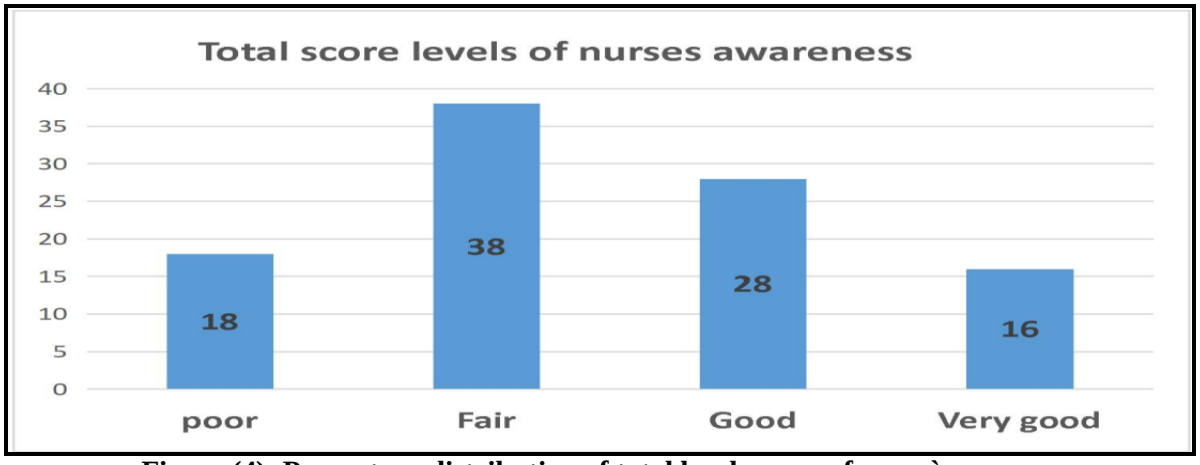

Figure (4): Percentage distribution of total levels score of nurse`s awareness regarding secondary traumatic stress

Table (5): Relation between of total level score of nurses' knowledge regarding post-traumatic stress and sociodemographic data of nurses

Variables	Levels of total score				p. value
	Satisfactory		Unsatisfactory		
	No	%	No	%	
Gender					
Male	27	48	24	54.5	0.395
Female	29	52	20	45.5	
Age					
From 20 to less than 30 years old	42	75	36	81.8	4.28
From 30 less than40 years old	14	25	6	13.6	
More than 41 years old	0.0	00.0	2	4.5	
Academic qualification					
Secondary education	0.0	00.0	0.0	00.0	0.561
Technical institute	32	57	22	55	
University education	24	50	22	50	
Years of experience					
Less than 2 years	9	16	4	9	1.14
2 less than 5 years old	22	39	19	43	
From 5:10 years	21	37	17	39	
More than 10 years	4	7	4	9	
training courses					
Yes	56	100	44	100	**0.05***
No	0.0	00.0	0.0	00.0	

Table (6): Relation between of total level score of nurses' awareness regarding secondary traumatic stress and sociodemographic data of nurses

Variables	Levels of total score for nurse`s knowledge								p. value
	Poor		Fair		Good		Very good		
	No	%	No	%	No	%	No	%	
Gender									
Male	6	33.3	12	31.6	24	85.7	9	56.3	1.662
Female	12	66.7	26	68.4	4	14.3	7	43.8	
Age groups									
From 20 to less than 30 years old	16	88.9	32	84.2	20	71.4	10	62.5	3.886
From 30 less than40 years old	2	11.1	6	15.8	8	28.6	4	25.0	
More than 41 years old	0	0	0	0	0	0	2	12.5	
Academic qualification									
Technical institute	9	50.0	23	60.5	9	32.1	13	81.3	
University education	9	50.0	15	39.5	19	67.9	3	18.8	
Years of experience									
Less than 2 years	4	22.2	3	7.9	6	21.4	0	0	**0.083***
From :2 less than 5 years old	6	33.3	20	52.6	9	32.1	6	37.5	
From 5:10 years	8	44.4	12	31.6	11	39.3	7	43.8	
More than 10 years	0	0	3	7.9	2	7.1	3	18.8	
Specialized training courses									
Yes	18	100	38	28	16	100			**0.04***
No	0	0	0	0	0	0			

Tables (7): Relation between total score levels of nurse's knowledge and total score of nurse's awareness regarding secondary traumatic stress

Relation	Satisfactory		Unsatisfactory		p. value
	No	%	No	%	
Poor	10	10.0	10	10.0	0.324
Fair	24	40.70	14	62.70	
Good	17	25.40	6	18.20	
Very good	16	23.90	3	9.10	

Chi square test for qualitative data between the two groups or more
**Significant level at P value < 0.05,* ***Significant level at P value < 0.01.*

Table (1): Illustrates the demographic information of critical care nurses. In regard to gender, it was discovered that more than half of the nurses were male (51%), with female nurses accounting for 49%. In terms of age, around 78% of the nurses were between the ages of 25 and 30. In terms of nurse credentials, it was discovered that the majority of nurses had technical institute qualifications (64%), with bachelor degree nurses accounting for 46%. In terms of nursing experience, 41% had less than 5 years and 38% had between 5 and 10 years. It was discovered that almost 100% of nurses have taken training courses.

Table (2): Shows nurse`s knowledge regarding secondary traumatic stress. It was found that 94 % know the concept of secondary trauma. Also, 89% from nurses think secondary trauma affects nurses and 97 % from nurses had experienced secondary trauma during your work as a nurse, 72 % from nurses believed that secondary trauma can be avoided. 80 % from nurses feel supported and psychologically cared for in your work environment. 84 % from nurses consider communicating and talking about difficult experiences with colleagues helpful in dealing with secondary trauma. Illustrates nurse`s knowledge regarding secondary traumatic stress. It was found that 62 % from nurses had received ongoing training on coping with secondary trauma and self-care 98 % from nurses think that stress management reduce the impact of secondary trauma. Also, 86 % from nurses think that providing psychological support to nurses exposed to secondary trauma should be part of the policies of the hospital/health institution and 98% from nurses think that providing psychological support to nurses can improving the quality of care. Furthermore, 100 % from nurses think there is a need for increased awareness and education about secondary trauma in nursing.

Table (3): Demonstrates nurse`s special knowledge regarding secondary traumatic stress. It was observed that 89 % from nurses had false answer about the concept of secondary trauma. While 90 % from nurses had true answer about common cause of

secondary trauma. About 100 % from nurses know the symptoms associated with secondary trauma. 95 % from nurses didn`t know secondary trauma diagnosed. 96% from nurses. 96% from nurses know strategy used in managing secondary trauma. While 93 % from nurses know the role of nursing in dealing with secondary trauma Furthermore, 81 % from nurses know the strategies for preventing secondary trauma. 88% from the nurses know important nursing prevention strategies for secondary traumatic stress. About 91 % from nurses know the role of nursing in providing care to people with secondary trauma and the importance in nursing of early prevention of secondary traumatic stress. Shows nurse`s special knowledge regarding secondary traumatic stress. It was found that 88 % from nurses know method nurses can use to deal with secondary traumatic stress. 75 % from nurses know the role of nursing in early diagnosis of secondary traumatic stress. About 91 % from nurses had known the importance of the nursing relationship in dealing with secondary traumatic stress. 97 % from nurses had known strategies can nurses use to deal with secondary traumatic stress.

96 % from the nurses had known the role of nursing in promoting awareness of secondary trauma among health professionals. 92 % from nurses had known the importance of providing psychological and emotional support for nurses staff working in health care settings in dealing with secondary traumatic stress (STS).

Table (4): Illustrates the expertise of nurse`s awareness regarding secondary traumatic stress (STS). It was found that, 77 % from nurses had never felt emotionally numb. 84 % from nurses had never felt heart started pounding when I thought about my work with patients. 67 % from the nurses had never It seemed as if I was reliving the trauma experienced by my patients in emergency department . 60 % from nurses had trouble sleeping. 61 % and 26 % had never and rarely felt concerned about the future. 64 % and 25 % from nurses had never and rarely reminders of my work with patients upset me. Furthermore 64 % and 27 % from nurses had never and rarely little interest in being around others. 59 % and 31 % from nurses had never and rarely felt jumpy. 60 % and 30 % from nurses had never and rarely less active than usual. About 62 % and 27 % from staff nurses had never and rarely thought about my work with clients when I didn't intend.

reveals nurses' awareness of subsequent traumatic stress. It was shown that 67% and 21% of nurses never or rarely had difficulty concentrating. 65% and 27% of nurses said they never and seldom avoided individual , location , or items that reminded them of their work with patients. 60% and 24% of nurses staff said they had never or rarely experienced upsetting nightmares involving their job with patients. 66% and 22% of nurses staff have never and seldom desired to avoid dealing with certain patients.66% and 23% of the nurses were never and rarely easily agitated,and they expected something terrible to happen. 65% and 20% of nurses staff had never and infrequently seen gaps in my recall of patients' sessions.

Figure (3): Shows total levels score of nurse's knowledge regarding secondary traumatic stress, it was observed that 56 % from nurses had satisfactory knowledge regarding secondary traumatic stress. While 44 % had unsatisfactory knowledge regarding secondary traumatic stress with mean &St.D had 1.44±.499

Figure (4): Shows total levels score of nurses awareness regarding secondary traumatic stress, it was observed that 38 % from nurses had fair awareness while 28% from nurses had good level of awareness with mean & standard deviation 2.42±.966.

Table (5): Shows the relationship between nurses total score for knowledge of secondary traumatic stress disorder and their sociodemographic characteristics. It was discovered that there was ' a relationship between total score of nurse's knowledge and sociodemographic data of nurses about nurses attending training courses, with
p. values = 0.05*.

Table (6): Shows the relationship between the total score of nurses' knowledge of secondary traumatic stress disorder and their sociodemographic characteristics. It was discovered that there was a relationship between the overall score of staff nurses' knowledge and sociodemographic data of staff nurses about years of experience and attendance at training courses, with p-values = 0.083* and 0.04* respectively.

Table (7): Shows the relationship between the overall score of staff nurse's knowledge of secondary traumatic stress (STS) and the total score of staff nurse awareness. There was no relationship between the two total score levels

Discussion:

Secondary traumatic stress (STS) is particularly widespread among staff nurses, especially among nurses working inside the emergency department (ED). Reducing secondary traumatic stress among healthcare workers is critical to providing high-quality, safe patient care. Secondary traumatic stress (STS) develops as a result of direct practice or exposure to trauma victims and is characterized by behavioral characteristics similar to post-traumatic stress disorder (PTSD). The diagnostic criteria for

PTSD include reliving the traumatic experience, avoiding reminders, and persistent hyperarousal. Though the symptoms may be identical, a major difference is the features of the initiating event **Robinson et al., (2022).**

Emergency nurses' awareness with secondary traumatic stress disorder symptoms could have the same symptoms of post-traumatic stress disorder (PTSD). Secondary traumatic stress (STS) has been observed regularly ina varity of care professions, including nursing. Staff Nurses with secondary traumatic stress are emotionally distressed and have frequent negative thoughts and have difficulty sleeping. They are at danger of sickness since they provide care for approximately 24 hours a day. Staff Nurses are also subjected to a variety of mental strains and developing different psychological disorders as a result of caring **Bahari et al., (2022).**

Finding of the present study revealed that the demographic data of the intensive care nurses. Regarding gender, it was found that more than fifty percent of the nurses was male. This result disagreement with **Bahari et al., (2022)** who documented that

The most of study sample from nurses were female. However**, Rayani et al.,** (**2024)** who found that the most of study sample from nurses were female. On similar

Line **Zakeri et al., (2021)** who reported that the majority of study sample were female. Additionally, **Lee et al., (2021)** who observed that the most of study sample from nurses were female. Also, **Alshammari et al., (2024)** who documented that the most of study sample were female. The results may be attributed to the present of this study conducted in Comprehensive Health Insurance in Luxor and the most of nurses there were male while in general health hospital were female.

The majority of staff nurses between the ages of 25 and 30. This is in contrast to **Bahari et al., (2022)** who found that between 24 and 62 years. This contradicts **Rayani et al., (2024)** finding that the majority of staff nurses were between the ages of 26 and 35. **Zakeri et al. (2021)** observed that the majority of the research group had a mean age of nurses 33.24 ± 6.2 years. **Lee et al. (2021)** found that the majority of research participants had a mean age of nursrs 32.8 ± 6.06 years. Another study backed by **Alshammari et al., (2024)** revealed that the average age of these nurses was 29.9 years, with a range of 20 to 46 years.

In regard to staff nurse qualifications, the majority of them were obtained from a technical institute of nursing. On the other side, **Zakeri et al., (2021)** indicated that the majority of nurses have a Bachelor's degree in nursing. This contradicts **Alshammari et al., (2024)** who found that 26 percent had a diploma education level and 50 percent had at least a bachelor's and master's degree certification. However, **Lee et al., (2021) & Rayani et al., (2024)** found that the majority of newly graduating nurses have a bachelor's degree. Also **Bahari et al., (2022)** found that the majority of nurses had a bachelor's degree.

In relation staff nurses' years of experience, roughly forty percent had fewer than five years and thirty eight percent had between five and ten years. This contradicts **Rayani et al., (2024)** who found that around forty percent of the staff nurses had worked for six years or more.

However, **Alshammari et al., (2024)** found that the majority of nursing experiences included more than 5 years of experience. It was discovered that around ten hundred percent of nurses have completed training courses. This contradicts **Lee et al., (2021)** who found that the majority of nurses had training courses.

The study found that most of staff nurses had good knowledge on secondary traumatic stress disorder , with a mean and standard deviation of 1.44 ±.499. This contradicts **Bahari et al., (2022)** who found that the majority of nurses had unsatisfactory overall score levels of knowledge about secondary traumatic stress. **Alshammari et al., (2024)** on the other hand, discovered that a low percentage of nurses were satisfied with their overall score levels of knowledge regarding secondary traumatic stress disorder, and nurse supervisors should apply highly standard standards to prevent secondary traumatic stress levels. Additional activities to address possible difficulties for boosting compassion satisfaction and lowering burnout among nurses are also proposed.

However, **Rayani et al., (2024)** found that about almost of staff nurses had an acceptable degree of understanding of secondary traumatic stress. Additionally, **Zakeri et al., (2021)** showed that the majority of nurses had an acceptable degree of awareness of secondary traumatic stress disorder. Another study backed by **Lee et al., (2021)** found that most of nurses had an acceptable degree of awareness of secondary traumatic stress disorder.

These results may be attributed to the fact that staff nurses' satisfaction scores did not change over the course of the training does suggest that the observed decreases secondary traumatic stress symptoms are not due to nurse's desire to report symptom improvement, as one would suspect that levels of satisfaction scores would also be swollen over time if this were the cased.and Also, sample size was small and different setting.

The study found that staff nurses had varying levels of awareness regarding secondary traumatic stress.

Less than 50% had fair awareness, while nearly 30% had good awareness (mean & SD = 2.42±.966). This contradicts **Tsouvelas et al.,** (**2022)** who recorded that the majority of nurses had moderate to high scores on secondary traumatic stress awareness (mean & SD = 4.51 ± 678). **Yao et al. (2024)** found that almost one-third of nurses had a strong degree of Secondary Traumatic Stress awareness, with average scores of 6.05 ± 4.13.

These finding may due to emergency unit and critical care is one healthcare settings most associated with stress and patients and their families in emergency unit and intensive care departments generally have a series of complex psychological problems. Nurses have almost no recovery time when caring for emergency unit and critical care patients, since they are continually transitioning from one traumatic incident to the next when working and coping with critical care and death. This high demand and highly tense working environment led to psychological stress reactions in emergency unjt and critical care nurses. Leadership of Nursing should pay attention to improving the working environment of emergency unit and critical care departments.

Another point of view conducted by **Rayani et al., (2024)** who observed that the leadership of nursing should conduct secondary traumatic stress STS related training and provide psychological counseling for emergency unit and critical care nurses in a targeted manner, so that staff nurses can learn about STS and its consequences and learn methods to manage it and work stress.

Lee et al., (2021) who observed that the majority of staff nurses were good scores level of secondary traumatic stress (STS) with mean & standard deviation 27.11±4.94, which were at a moderate level ، while their posttraumatic growth score was 56.47± 20.41, which was indicating a low level. Compared with previous research, the level of secondary traumatic stress of freshly graduated staff nurses is obviously higher, but the level of compassion satisfaction and posttraumatic growth are lower. The reason for this result may be that staff nurses have just come into contact with clinical nursing and lack of experience, so they cannot easily view and cope with work stress, while the slow role transformation also makes staff nurses unable to clearly find their own position in clinical nursing work and feel the pleasure and achievement brought by helping others.

Furthermore, **Alshammari et al., (2024)** who found that the most score levels of secondary traumatic stress awareness with mean & standard deviation Standard deviation 13.23 ± 3.65 out of the maximum possible score of indicating good level of STS awareness among emergency nurses. The current study found a link between the overall score of nurses' knowledge on secondary traumatic stress and their sociodemographic data. It was discovered that there was a relationship between the overall score of nurses' knowledge and sociodemographic data of nurses attending training courses (p-value = 0.05*).

This results disagreement with **Robinson et al., (2022)** who observed that there is relation between total score of nurse`s knowledge regarding secondary traumatic stress and sociodemographic data of nurses. It was found that there was link between total score of nurse`s knowledge regarding secondary traumatic stress and sociodemographic data of nurses regarding education level, age, years of experience, and hours worked were associated with, with p-value = 0.013, 0.034, 0.076 and 0.002 respectively

Another study sponsored by **Bahari et al., (2022)** demonstrated the relationship between the overall score of nurses' knowledge of secondary traumatic stress and sociodemographic data of nurses. It was shown that there was a statistically significant and negative link between the overall score of nurses' knowledge of secondary traumatic stress and sociodemographic data of nurses regarding age (r = -.105, p =.024).

The current study found a link between the overall score of nurses' knowledge of secondary traumatic stress and sociodemographic data about nurses. It was discovered that there was a relationship between the overall score of nurse awareness and sociodemographic data of nurses in terms of years of experience and attendance at training courses, with p-values of 0.083* and 0.04*.

Additionally, **Lee et al., (2021)** Also discovered that there was a relationship between marital status, department, work overtime, and a greater stress level with awareness overall score levels (p-value =.001). Factors impacting awareness were marital status, final degree, department, and clinical nursing experience. Higher levels of stress were associated with lower levels (p-value = -0.505 and p-value =.001).

Conclusion

- The most of critical care nurses had satisfactory knowledge regarding secondary traumatic stress, nearly fourty percent from nurses had fair awareness regarding secondary traumatic stress and there was no relation between the both total score levels.
- This study highlights the high prevalence of secondary traumatic stress (STS) among nurses, particularly those in emergency and intensive care settings.
- STS symptoms significantly impact nurses' emotional well-being, sleep quality, and overall mental health, resembling post-traumatic stress disorder (PTSD).

Recommendations:

- Conduct regular training programs and workshops to improve nurses' awareness, recognition, and management of STS.
- Establish psychological counseling services and mental health support tailored for nurses in high-stress environments.
- Improve working conditions by reducing workload, ensuring adequate staffing, and offering flexible schedules to mitigate stress exposure.
- Implement routine screening and early detection programs to identify nurses at risk of STS and provide timely intervention.
- Promote peer support programs, allowing nurses to share experiences and coping strategies in a structured setting.
- Encourage further research on the long-term effects of STS and integrate STS management policies into nursing guidelines and hospital protocols.
- Support self-care initiatives by encouraging mindfulness, relaxation techniques, and stress management activities among nurses.

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