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Assessing the prevalence and predictors of secondary traumatic stress among emergency nurses in Palestine during COVID-19 pandemic.

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This thesis was submitted in partial fulfillment of the requirements for the Master's degree in Emergency Nursing.

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Approval form

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among emergency nurses in Palestine during COVID-19 pandemic.**

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Declaration

I declare that the content of this thesis is my own research work, unless otherwise referenced. I certify that this thesis does not contain any material published before by another person or has been submitted elsewhere for any degree or qualification.

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Dedication

I dedicate this work to the Almighty Allah for preserving my life, ensure my security in West Bank during COVID-19 pandemic and gave me good Health and strength to be able to do this work.

To my parents for their endless prayers and my family for their encouragement.

To my friends for supporting and encouragement.

To my Supervisor Dr. Basma Salameh

To every person help me to finish this work.

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Abstract:

COVID-19 pandemic considered one of the most stressor now, which may affect the mentality of nurses in their working area, that can lead to developing secondary traumatic stress. Secondary traumatic stress is a stress that is resulted from an indirect exposer to a trauma, by seeing a trauma, working with a traumatic patient, or listening about a trauma. A cross sectional quantitative study was conducted among 16 different hospitals in west bank Palestine, that was aimed to assess the prevalence, predictors and consequences of secondary traumatic stress among emergency nurses in Palestine during the COVID-19 pandemic with a sample size N (258) nurses who are selected by a convenience sample. The results showed that the response rate from the total sample was (75 %), that 189 emergency nurses respond to the research study, the results indicate that Palestinian Emergency nurses had a high level of secondary traumatic stress, which (62.2%) had a secondary traumatic stress disorder, and more than (60 %) of had a high to sever level of secondary traumatic stress. The results indicates that emergency nurses had a moderate level of perceived stress, and high level of social support, low level of job satisfaction and organizational support, the result showed that Palestinian emergency nurses had a job burnout and using the both mechanisms of coping, and only the years of experiences, perceived stress and burnout can predict the prevalence of secondary traumatic stress among emergency nurses in Palestine.

Key words: Secondary traumatic stress, COVID-19 pandemic, Burnout, stress.

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List of abbreviations:

CDC: Centers for Disease and Prevention

MOH: Ministry of Health

WHO: World Health Organization

ED: Emergency Department

SS: Sample Size

MCQ: Multiple Choice Questions

AAUP: Arab American University Palestine

SD: Standard Deviation

M: Mean

ED: Emergency Department

ILS: Israeli Shekel

PTSD: Post Traumatic Stress Disorder

VT: Various Trauma

STS: Secondary Traumatic Stress

STSS: Secondary Traumatic Stress Scale

PSS: Perceived Stress Scale

MBIS: Malachi Burnout Inventory

JSS: Job Satisfaction Scale

MSPSS: Multidimensional Scale of Perceived Social Support

ANOVA: Analysis of Variance

POS: perceived organizational support scale

ROSC: Return of a Spontaneous Circulation

CPR: Cardiopulmonary Resuscitation

Chapter one: -

1.1 Introduction: -

Secondary traumatic stress (STS), “is a stress that is resulted from an indirect exposure to a trauma by seeing a trauma, working with traumatic patients, or listening about a trauma, and it is a stress resulting from helping or wanting to help a traumatized or suffering person” (Figley, 1995).

Health care professionals are the most vulnerable to developing the secondary trauma stress, especially those who provide direct care to the patient from nurses and doctors (Figley, 1995).

Many factors predict the prevalence of secondary traumatic stress and are divided into two main factors: personal factors, such as age, gender, level of education, years of experiences, coping mechanisms, social support provided and trauma training and history of trauma exposure. The second factor is the organizational factors that include: level of organizational support provided, relationship with colleagues, clinical supervision and level of trauma exposure (Ratrou & Hamdan-Mansour, 2020). As a result, secondary traumatic stress has many consequences, which could be serious problems and may affect quality of lives of people. That’s includes: burnout, emotional exactions, absenteeism, job dissatisfactions, increase number of sick leaves per month and desire to leave the work (Ratrou & Hamdan-Mansour, 2020).

In Palestine, according to the increased of Israel force against the Palestinian people, increased number of patients who admitted to the hospitals in a case of trauma by Israeli army and increased number of peoples who are killed by Israel soldiers, in addition to the absence of political resolution between the Israeli and the Palestinian. As a result, the world health organization considered that Palestinian have a high level of anxiety stress and post-traumatic stress disorder (Marie et al., 2020).

Moreover, COVID-19 pandemic causes a high level of stress among healthcare provider in Palestine. Also, the increasing number of critically patients' cases, shortage of resources, the little amount of experience of care provided to such patients, long time working with patients and low income has increased the level of stress among healthcare workers (Maraqa et al., 2020).

As a result of increasing the stress among healthcare workers during the COVID-19 pandemic, and the high level of anxiety and post-traumatic stress disorder among Palestinian people, the secondary traumatic stress may increase, especially among a frontline healthcare provider like emergency nurses and doctors as a stress that is resulted from the COVID-19 pandemic.

1.2 Problem Statement:

The COVID-19 pandemic, also known as the coronavirus pandemic, is a new disease started in China, Wuhan in December 2019 and caused by extreme acute respiratory syndrome (SARS-CoV-2), then separated to all regions in the world (World health organization 2020). In March 2020, "considering the alarming levels of spread and severity, and by the alarming levels of inaction, the World Health Organization characterized the severe acute respiratory syndrome - Coronavirus - 2 (SARS-CoV-2) situation as a pandemic"(Poli et al., 2020). According to world health organization, now there are more than 200 million patients who are diagnosed with COVID-19 and they have more than 4 million deaths with pandemic worldwide. Although two years have passed since the pandemic, many vaccines against the Corona virus have been manufactured, but there is still a slowdown in the manufacturing process and a limited distribution of vaccines around the world. (World health organization 2020). Lack of proven scientific evidence regarding COVID-19 treatment and vaccination, the complexities of lockdown such as social distancing, financial burden can all affect individuals' mental health status and wellbeing" (Arpacioglu et al., 2020). Many studies have reported that there are many psychological stressors that contribute for

developing secondary traumatic stress among the health care workers who are mainly nurses working under the new pandemic, this is because of the absence of medication and limitation of distribution of vaccines, lack of personal protective equipment, increasing number of patients visiting the hospitals, physical exhaustion and overwhelming workload, and fears about COVID-19 direct exposure at work, this has also associated with the concern of being infected or spreading the infection among peers and family members (Marzetti et al., 2020). Furthermore, few research studies have addressed the epidemiological evidence on the emotional wellbeing of frontline nurses caring for COVID-19 patients (Hu et al., 2020b).

In Palestine, emergency nurse provides a care for various types of patients coming to emergency with injury resulted from motor vehicles crashes, car accident, assaults, abuse, and gunshot wounds resulted from Israeli soldiers. Also undertake tasks related to communicable disease such as COVID-19. Taking care of such patients may affect the emergency nurse's health, physically and mentally, by developing a secondary stress disorder that may also affect their normal lives.

1.3 Research Significant:

Secondary traumatic stress is a common problem facing the nurses at emergency departments. It could harm the physical, social and mental health of such nurses. Determining the prevalence of secondary traumatic stress, the predictors and consequences among Palestinian emergency nurses are very important because they have many stressors facing them in their work. For example, high number of patients at emergency, the increasing number of COVID-19 patients visiting the emergency, shortage of resources and protective equipment's, occupation in Palestine and treating of several traumatic patients resulted from Israeli soldiers' assaults can affect the mental health of nurses this may also increase the prevalence of secondary trauma stress. In addition, there are no previous research about this problem in Palestine. Thus, knowing the prevalence of secondary

trauma and understanding the predictors and consequences can help managing this problem and decrease the prevalence of this phenomenon.

1.4 The Aim Of The Research: -

The aim of this study is to identify the prevalence of secondary traumatic stress among Palestinian emergency nurses during COVID-19 pandemic, and to understand the links between predictors and nursing personal characteristics regarding the incidence of secondary traumatic stress. Secondary it also aims to determine the consequences of secondary traumatic stress on their duty performance, quality of care provided, and job satisfactions. Moreover, identifying the prevalence of secondary trauma stress in Palestine, their predictors and the nursing personal characteristics could determine the incidence of secondary traumatic stress. In addition, knowing the consequences of secondary traumatic stress and COVID-19 pandemic on job performance and quality of care provided could help reduce the effects of these factors. Furthermore, determining which factor with more effects on developing the secondary stress will contribute in providing a supportive teaching, planning and counseling that may help the nurses decreasing the consequences of secondary traumatic stress on their job and lives.

1.5 Research Objectives: -

General Objective: -

The purpose of this study is to assess the prevalence and the predictors of secondary traumatic stress among emergency nursing in Palestine, during COVID-19 pandemic.

Specific Objectives: -

1- Assessing “the prevalence of secondary traumatic stress among emergency nurses in Palestine during the COVID-19 pandemic.”

2- Determining the predictors of “secondary traumatic stress” among emergency nurse in Palestine during the COVID-19 pandemic.

3- Assessing the consequences of “secondary traumatic stress among” emergency nurses in Palestine during COVID -19 pandemic.

4-Determineing the relationship between nursing personal characteristics and secondary traumatic stress in Palestine under the pandemic.

1.6 Research Questions: -

1- What is the prevalence of “secondary traumatic stress disorder” in Palestine during the COVID-19 pandemic?

2-What are the predictors of “secondary traumatic stress” among emergency nurses in Palestine during the COVID-19 pandemic?

3-What are the consequences of secondary traumatic stress among emergency nurses in Palestine during the COVID-19 pandemic?

4-What are the relationship between nursing characteristic and secondary traumatic stress in Palestine during the COVID-19 pandemic?

1.7 Variables Of The Study: -

The variables are divided into two sections, (Dependent and Independent variables).

Independent variables divided into two sections: -

Personal variables	Organizational variables
Age	Type of hospitals

Gender	Organizational support
Level of education	Level of traumatic exposure
Professional experiences	Training about COVID-19 pandemic
Trauma training	
Social support	
Coping mechanisms	

Dependent variables: -

Quality of care.
Sick leave
Absenteeism.
Desire to leave the Emergency.
Burnout.
Anxiety.
Depression.
Job dissatisfactions.

Secondary Traumatic stress disorder
--

1.8 Conceptual and Operational Definitions: -

1.8.1 Conceptual Definitions: -

- 1- Secondary traumatic stress results from the natural, consequent behaviors and emotions following being informed of the traumatizing events experienced by a close relative; it is the stress drawn from wanting to provide assistance to a traumatized or suffering relative. (Figley, 1995).
- 2- Burnout is condition occurs when participants are involved in emotionally demanding work situations for a long period of time, resulting in physical, mental, and emotional exhaustion (WILMAR B., 2001).
- 3- Organizational support defined as “employees develop a general perception concerning the extent to which the organization values their contributions and cares about their well-being perceived organizational support” (Kurtessis et al., 2015.p.2).
- 4- Social support defines as “support accessible to an individual through social ties to other individuals, groups, and the larger community and it is defined as a network of family, friends, neighbors, and community members that are available in times of need to give psychological, physical, and financial help” (Fatih Ozbay et al., 2007.p37).
- 5- Coping Mechanism is defined as “cognitive and behavioral efforts to master, reduce, or tolerate the internal and/or external demands that are created by the stressful transaction” (Berjot & Gillet, 2011.p.2).

6- Job satisfaction defined: An individual's positive affective response to the target environment based on the extent to which the environment fulfills his or her needs (Lofquist & Dawis, 1991).

1.8.2 Operational Definitions:

The research uses a quantitative survey for exploring the variables that is used in this research, the research contains many variables used in the questionnaire that are defined as a following: -

1- Secondary traumatic stress scale: It is a scale that is used to investigate the symptoms of secondary traumatic stress that includes Intrusion, avoidance, and arousal (Figley, 1995).

2- The other scale that is used is Maslach Burnout Inventory It is a scale that is used to measuring the severity of burnout developed in a work environment. It is 21 items that measures the emotional exhaustions, depersonalization, and personal accomplishment. This scale developed by Maslach and Jackson 1979 (Iwanicki, E. F., & Schwab, R. L. 1981).

3- Multi-dimensional scale of perceived social support: another scale used in the study, which aim to measure the social support provided to emergency nurses. It is considered one of the predictors of secondary traumatic stress, and including 12 items investigating family and friend's support (F. Ozbay et al., 2007).

4- Perceived organizational support scale, is another important scale that is also used in our study. It is including 10 items that aims to measure the degree of support that is provided to the employees. In our study, organizational support is one of many predictors that predict the prevalence of secondary traumatic stress (Robert Eisenberger, 2019).

5- The Perceived Stress Scale is a classic stress assessment instrument. It is tool, that was originally developed in 1983 and remains a popular choice for helping us understand how different situations affect our feelings and our perceived stress, the scale is 10 items. The questions in this scale ask about your feelings and thoughts during the previous month (Sheldon Cohen, 2015).

6- Job Satisfaction Scale: “is a scale that is used to measure the degree of satisfaction of the job. It is 10 items which ask about how do you feel about your job (Scott and MacIntyre ,1997).

7- Cope scale: it is 28 questions that aim to assess the degree of coping of workers with the situations in the working area (Holahan, C. J., & Moos, R. H. 1987).

Chapter two Literature review

2.1 Introduction:

This is a study talking about the prevalence of secondary traumatic stress among emergency nurses during COVID-19 pandemic. The chapter will discuss the prevalence of secondary traumatic stress disorder in many countries among emergency nurses during COVID-19 pandemic by reviewing previous studies, and discuss the predictors contribute the incidence of secondary traumatic stress between nurses in previous studies. It also talking about consequences of secondary traumatic stress disorder among emergency nurses. The search strategy investigated published studies which were written in English between 2015 and 2020, For the current study, literature review involved a comprehensive search with three sources of reference: Medscape, CINAHL, and PubMed. The Key words were involved to secondary traumatic stress, COVID-19 pandemic, stress among emergency nurses. This chapter includes subsections about job Burnout, job dissatisfactions, anxiety and stress, social support and coping mechanisms.

2.2 Research Topic Definitions: -

1- Secondary traumatic stress is described as "the normal, subsequent actions and emotions that result from awareness of a traumatic event experienced by a significant other; it is the stress that results from helping or wanting to help a traumatized or suffering individual"(Figley, 1995).

2- Burnout: - Burnout is described as "a state of physical, emotional, and mental exhaustion caused by long-term involvement in emotionally stressful work situations" (WILMAR B, 2001).

4- Organizational support: “Employees establish a general understanding of how much the company values their efforts and cares about their well-being, which is described as perceived organizational support” (James N. Kurtessis 2015).

5- Social support: is defined as “support accessible to an individual through social ties to other individuals, groups, and the larger community” (FATIH.O, 2007).

6- Coping mechanism: is defined as “cognitive and behavioral efforts to master, reduce, or tolerate the internal and/or external demands that are created by the stressful transaction” (Sophie. B & Nicolas. G, 2011).

7- Job satisfaction: is defined as “an individual’s positive affective reaction of the target environment as a result of the individual’s appraisal of the extent to which his or her needs are fulfilled by the environment” (Lofquist & Davis,1991).

2.3 Prevalence Of Secondary Traumatic Stress:

Secondary Traumatization Outcomes and Associated Factors among the Health Care Workers Exposed to the COVID-19 is one of a study that aims to research about secondary traumatization and associated factors among health care workers during COVID-19 pandemic in Turkey. A cross sectional study conducted in May 2020 in Turkey, with a study sample size about two hundred fifty-one health care workers from different units/services and 312 non-medical worker adults attended Health care workers and were divided into two groups based on working with COVID-19 patients. The result showed that among the 563 participants, 251 (44.6%) were health care workers and 312 (55.4%) were non-medical workers. Moreover, the frontline healthcare workers had significance complain of high degree of secondary traumatic stress disorder, anxiety and mental health problems. Furthermore, the result demonstrates that women with fewer work

experiences and has a history of past traumatic experience highly affected of secondary traumatic stress than other frontline healthcare workers in Turkey. On the other side a frontline healthcare worker with 10 years of experiences or less have showed highly susceptible for developing a secondary traumatic stress than a frontline healthcare worker with 20 years of experiences (Arpacioğlu et al., 2020).

Another study conducted in Ireland which aimed to search about level of burnout and secondary traumatic stress among nurses working at emergency department and their relationship between these variables. It is cross sectional nonexperimental study questionnaire-based research with a sample size 70 nurses working at emergency department. The result of this study showed that the emergency nurses have felt moderately of secondary traumatic stress disorder with a score about 33.10 and have moderately felt of burnout. The relationship between secondary traumatic stress and burnout is a strong correlation relationship between secondary traumatic stress and burnout. This means that a nurse with secondary traumatic stress is highly susceptible to develop a job burnout. In addition, there is a strong relationship between night shift and developing the secondary traumatic stress disorder (Rusca Putra & Setyowati, 2019).

Another research in Italy aimed to assess the level of secondary traumatic stress and burnout toward frontline healthcare workers during COVID-19 pandemic. The researcher collects data from 184 frontline healthcare workers during the COVID-19 epidemic all over the world. To evaluate psychological distress in terms of perceived tension, professional burnout, and STS, and to recognize possible risk or protective factors among HCWs. The results showed that about 40 % of total sample has symptoms from moderate to severe symptoms of secondary traumatic stress where intrusion is the most symptoms of secondary traumatic stress disorder. Furthermore, it was clear that women's frontline healthcare workers are more affected of secondary traumatic stress

than male's frontline healthcare workers. The result shows that secondary traumatic stress is positively affected by the time that frontline healthcare workers spend with patient and number of deaths has been seen. Finally, the result indicates that about 50% of total sample of frontline health care workers has job burnout (Marzetti et al., 2020).

Another study conducted in Rhode Island that aimed to determine the prevalence and seriousness of stressful effects encountered by emergency room nurses as a result of repeated exposure to distressing incidents., The researcher collects data from 59 nurses working at Rhode Island hospital. He used secondary traumatic stress scale to measure the intrusion, avoidance and arousal and the total score from 1 to 4. The results show that emergency nurses have felt from mild to moderate of symptoms of secondary traumatic stress disorder, Arousal symptoms have been the most common among participants, with a mean score of 1.66. This followed by avoidance symptoms with a mean score of 1.49, intrusion symptoms with a mean score of 1.39, and have got the lowest symptoms with a mean score of 1.39 (Machado, 2018).

In Gaza a study was conducted aimed to determine the type and severity of traumatic events, as well as the most common mental health problems associated with trauma (secondary traumatic stress and anxiety). It demonstrates the relationships between trauma, secondary traumatization, anxiety, and other socioeconomic factors among emergency medical personnel in Gaza Strip. With a sample size 214 healthcare professional who are working in emergency department. The findings indicate that mild traumatic injuries affect 26.6 % of the study sample, moderate traumatic events affect 67.8 percent of the study sample, and severe traumatic events affect 5.6 percent of the study sample. Skilled workers were more likely to have arousal signs (Abdo et al., 2016).

In western Ireland 2014, many stressors faced the emergency nurses in the emergency departments across sectional research which was conducted at three main emergency hospitals to investigate

the prevalence of secondary traumatic stress disorder, about 105 nurses who responded to research. The result showed that 64% of emergency nurses has a moderate to severe symptoms of secondary traumatic stress, the greatest symptoms is intrusion then avoidance then arousal, moreover there is no relationship between secondary traumatic stress and years of experiences, and there is relationship between secondary traumatic stress and desire to leave the work and emergency department (Duffy et al., 2014).

Meta-analysis systemic review of previous research about covid-19 conducted in Italy to explore the traumatic stress among healthcare workers during covid-19 pandemic and related factors, the researcher selects an article about covid-19 and stress among healthcare workers in different countries from 2019 to 2020, the results showed that a frontline healthcare worker had significantly affected by varicose trauma. Varicose trauma is a term used to describe a secondary traumatic stress, and the symptoms of this trauma include loss of appetite, fatigue, sleep disorders, irritability, inattention, fear, and interpersonal conflict, which often remain at sub-clinical levels. The result shows that the stress and anxiety is high in frontline healthcare workers especially nurses and doctors whereas it is mild to moderate in non-frontline healthcare workers, this study note that healthcare workers during covid-19 pandemic have been complaining of many stressors that can affect their normal lives, secondary traumatic stress, anxiety, depression are the most psychological stressors that affect healthcare professionals (Vitale et al., 2020).

Finally, a mixed method research conducted aimed to investigate the prevalence of secondary traumatic stress among emergency nurses in the west of Scotland and explore their experiences of this. The research sample consisted of 200 nurses who are working in emergency department in west of Scotland. The result shows that 75% of the sampled emergency nurses reported at least one secondary traumatic stress symptom , that the most frequent symptoms is arousal symptoms

with n =42 52.3% of sample size and followed by avoidance symptoms n=41 about 51.3% , and then intrusion symptoms n=18 about 22.6%, Many factors that contribute the severity of secondary traumatic stress, seeing the seeing the deaths , culture , type of workplace , degree of trauma exposure , social support are some factors that influence in developing the secondary traumatic stress (Morrison & Joy, 2016).

2.4 Predictors Of Secondary Traumatic Stress Disorder: -

A new study conducted in Jordan that is aimed to investigate the prevalence of secondary traumatic stress, identify the predictors and consequences of secondary traumatic stress among nurses working at emergency departments in Jordan. The researcher selects 8 emergency centers and select 202 nurses who are working at emergency department. The result showed that more than half of nurses experience high to sever secondary traumatic stress, the highest mean score was arousal symptoms, followed by avoidance, and intrusion. By analysis of predictors, the result showed that only coping and empathy significant predictor of secondary traumatic stress, that secondary traumatic stress is not linked with demographic factors, the high level of coping and low level of empathy can be identified as a risk factors for development of secondary traumatic stress among emergency nurses. Consequences of the secondary traumatic stress, the analysis showed that STS are significant with absenteeism and sick leave and not significant with job satisfactions, these findings suggest that nurses who reported higher level of STS symptoms, tend to have a more related work absenteeism and sick leaves per days (Ratrouf & Hamdan-Mansour, 2020).

Another study by Hamza Al Ratrouf conducted in 2017, a systematic review of a previous studies that aimed at exploring the prevalence of secondary traumatic stress among emergency nurses and

identify factors that enhance the occurrence of secondary traumatic stress between nurses in emergency departments by reviewing a previous literature. By the reviewing, the researchers find that the literatures indicate high prevalence of secondary traumatic stress between nurses in emergency department and the prevalence of secondary traumatic stress may have associated with increased absenteeism, anxiety, depression, burnout, and job dissatisfactions. The literatures indicate that there are many factors affecting the occurrence of secondary traumatic stress among emergency nurses, the factors divided into two main sectors, personal and organizational factors. Personal factors include: age, gender, years of experiences, trauma training, empathy, educational level, social support. Organizational factors include: trauma case load (level of trauma exposure), organizational support, clinical supervision, and relationship with colleagues (Ratrouf & Hamdan-Mansour, 2017).

A new study conducted in Italy, talking about coping mechanisms and developing of secondary traumatic stress. Working with patient having a corona virus, and a lot of affected people and deaths, as a same shortage of personal protective equipment, whereby can put the emergency healthcare provider in many stressors that may lead to a developing depression, anxiety, secondary traumatic stress. Coping with stress is a one of mechanisms that lead to developing the secondary traumatic stress. So, the primary goal of this research was to determine the coping mechanisms used by healthcare and emergency personnel to cope with stress factors linked to the COVID-19 emergency which may be associated with the possibility of experiencing vicarious or secondary trauma. By recruiting 210 healthcare professionals from various regions in Italy who are operating under the pandemic of various departments in hospitals. The result showed that both groups have the same degree of STS, where the same group has complained from moderate to severe STS.

There is no deference between two group in effects of coping on developing STS (Vagni et al., 2020).

In April 2015, a meta-analysis study that was conducted to investigate the factors contribute to the developing of secondary traumatic stress. 38 Articles used in this study; a meta-analysis of this articles is done to investigate the factors. The result of this study indicates that there are many factors contribute to the developing of secondary traumatic stress, or can increase symptoms or eliminate them. Some of these factors are demographic factors such as age and gender and years of experiences. By analysis of the articles, the age and experiences have mild significant in developing the secondary traumatic stress. Other factors like caseload, history of trauma exposure have a mild influence on developing the secondary traumatic stress. But type of trauma exposure, time spend with patient have a strong effect on developing the secondary traumatic stress. The result showed that trauma training and knowledge about the trauma can moderately influence to developing the secondary traumatic stress. Other factors like work (supervision and relationship with colleagues) and social support had a small significant effect size (Hensel et al., 2015).

2.5 Consequences Of Secondary Traumatic Stress:

A study conducted at university hospitals in Germany. This study aimed to investigating the secondary traumatic stress, work disabilities, and effects of secondary traumatic stress on mental status. The researcher demonstrates that nurses who complains of secondary traumatic stress have symptom of anxiety and depression. The researcher selects a sample of 320 nurses from different university hospital in Germany. By reviewing the data, the result showed 91.2% experience secondary traumatic stress, and 25.3% reported one of secondary traumatic stress symptoms. The effects of secondary traumatic stress are varied, the result showed that nurses with a secondary

traumatic stress have reported a high level of depression and anxiety, the research found that those afflicted by secondary traumatic stress reported higher job strain, less social support by colleagues and supervisors, and less participation. It also reported that nurses with secondary traumatic stress have a job burnout, increase job absenteeism, and high degree of depression (Bock et al., 2020).

Another study was conducted in Wuhan China, a cross sectional descriptive study with a large sample size of 2014 nurses who are working in three main hospitals in Wuhan, the aim of this study was to assess the anxiety, depression, burnout and fear among emergency nurses during covid-19 pandemic. Anxiety, burnout and depression is a common mental health problem that is resulted from the workload, stress, and fear of work. The result showed that the participant reported moderate level of burnout, and high level of fear, the participants reported mild ,27.1%, moderate 11.0% and severe 67,3.3% anxiety. Similarly, the participants indicated mild, 32.8%, moderate, 9.6%, and severe 1.1% depression. The majority of the nurses reported moderate, 28% and high 36.2% fear. The majority of participant 94.8% had reported one or one skin lesion that is resulted from personal protective equipment, the researcher findings showed that frontline nurses' burnout, anxiety, and depression were moderately negatively correlated with self-efficacy and resilience. The frontline nurses' burnout, anxiety, depression, and fear were moderately negatively correlated with social support (Hu et al., 2020).

In Egypt, a study aimed at revealing the extent of burnout among physicians and nursing staff working in the emergency hospital of Tanta University, and to identify some if its determinates. The researcher takes a sample consist of 266 physicians and 288 nurses who are working in the emergency departments. The result showed that most of the participant (66%) had a burnout while 65.5%with a moderate burnout, and 7.7% of nurses with a low scale of burnout, and the physicians, about 22.6% with a high level of burnout, while 66.5 with a moderate level of burnout and 10.9

with a low level. Many factors affect the developing of burnout, age, gender, years of experiences, frequent exposure to a job violence, relationship with colleagues and supervision is a factor that affects in developing a job burnout (Abdo et al., 2016).

In Spain 2020, another study was conducted to assess the level of psychological stress that is resulted from COVID-19 pandemic among health care professionals who working under the pandemic. Lack of personal protective equipment's, high work load and increase number of patients and deaths patient puts the health care workers under psychological pressures that affects the healthcare workers normal lives. The data was collected from many hospitals that are distributed across Spain. The result showed that nurses and doctors complained from high level of burnout. The emotional exhaustions and depersonalization are the most symptoms that nurses and physicians complained from. The result showed that most of healthcare workers need a medical treatment related to the effects of burnout (Martínez-López et al., 2020).

2.6 Summary

Nurses working in the emergency departments are at the forefront of a demanding health care system, and are expected to deal with traumatized patients on a regular basis that can lead to symptoms of secondary traumatic stress. (Matter et al., 2017) Nurses working in the Emergency Department, provide a care of severally critically ill patients, and communicable diseases such as coronavirus. As a result, the nurses experience stress closed to the stress faced by the patient (Ratrouf & Hamdan-Mansour, 2020). Secondary traumatic stress is a serious mental health problem, that may affect mental, physical, behavioral aspect of affected person, that's problem may lead to anxiety, depression, sadness, fear and shock and may also increase in the number of sick leaves per month, decreased the job performance and job dissatisfactions. It may also lead to the use of illegal drugs such as cocaine or marijuana as a coping strategy. (Duffy et al., 2014)

2.7 Conclusion

The secondary traumatic stress disorder is a serious mental health problem, affects the nurse's mental health integrity and may lead to a serious physical health problem. Most of nurses who are working in emergency departments have a varies degree of secondary traumatic stress, and it is increased with nurses who are working with COVID-19 patient related to decreased resources, lots of patients and fear from this disease. There are many factors that affect developing the secondary traumatic stress like age, gender, years of experiences, social support, coping mechanisms, organizational support, secondary traumatic stress which can lead to a job dissatisfaction, and burnout.

Chapter 3: Research Methodology

3.1 Introduction

This chapter presents an overview of the research methodology that is used in this study. It includes: Research design, Study sample, Setting of the study, Duration of the study, Source of data, Inclusion and Exclusion criteria, Sample size, Sample and Sampling process, Pilot study, Validity, Reliability, Data collection, Variables (Study measures), Ethical consideration, Analysis plan. A sample of (181) Emergency Nurses selected, convenience sampling used, definition as recruited (every emergency nurse whose age is (21years or more), whose working in ED's).

3.2 Research Design

A Cross-sectional -Descriptive, Quantitative study was performed to carry out this study. To assess the prevalence, predictors and consequences of secondary traumatic stress among emergency nurses in the emergency departments (ED's) in Palestine. The researcher used this design because we need to measure the probability of prevalence of secondary traumatic stress in Palestine and factors that affect and predict the occurrence of secondary traumatic stress. It also assessing the variables and describe the relationship between dependent and independent variables in a selected area in Palestine and predict the factors that affect the prevalence of secondary traumatic stress in Palestine.

3.3 Population

In this study, the target population is all nurses working in ED's at Ministry of Health whether government or private hospitals in Palestine. The total population in these hospitals is 258 emergency nurses.

3.4 Sample Size

The sample is all nurses from 16 different private and public hospitals who are selected by a convenience sample. The sample size depended on the response rate of nurses working in the emergency department. Based on G. Power analysis, the minimal sample size at Power 0.90, a medium ES of .15 ($R^2 = .15$), and .05 alpha level of significance is 141

3.5 Setting Of The Study

The study conducted in emergency departments in the governmental and private hospitals in the Palestine that include a 16 different hospital that covered the north, meddle and south of west bank of Palestine. (Alrazi Hospital, Jenin Hospital, Turkish Hospital, Alwatani Hospital, Specialized Arab Hospital, Rafidia Hospital, Thabet-Thabet Hospital, Al-Issra Hospital, Darwish Nazzal Hospital, Salfit Hospital, Palestine Medical Complex, Arab Rehabilitation Hospital, Beit Jala Hospital, Alkhalil Hospital, Al-Ahly Hospital and Jericho Hospital). These hospitals affiliated with the MOH and were selected using a convenience sample and all of them have 16 departments provide emergency care for patients all over the West Bank.

The following table describe the number of hospitals selected randomly, years of establish, total bed capacity, bed capacity in emergency, and total number of nurses working at emergency.

Hospital	Years established	Bed capacity organization	Bed capacity in ED	Total number of ED nurses
1- Alrazi Hospital		47	7	5
2- Jenin Hospital	1961	207	10	15
3- Turkish Hospital	2013	44	8	8

4- Alwatani Hospital	1888	62	12	15
5- Specialized Arab Hospital	1997	97	7	18
6- Rafidia Hospital	1976	201	22	15
7- Thabet-Thabet Hospital	2004	126	11	13
8- Al-Issra Hospital	1990	33	4	8
9- Darwish Nazzal Hospital	2008	62	5	10
10- Salfit Hospital	2006	50	7	11
11- Palestine Medical Complex	1963	244	30	39
12- Istishari Hospital	2016	121	10	15
13- Arab Rehabilitation Hospital	1960	103	15	15
14- Beit Jala Hospital	1955	131	12	20
15- Alia Hospital	1957	259	15	18
16- Al-Ahly Hospital	1988	162	12	22

*Note: Information gathered from (Ministry of health, 2019.)

- Hospital (1): is a private hospital, located in Jenin, the hospital accepts referrals clients from other hospitals and offers medical, surgical and diagnostic services.
- Hospital (2): is a government hospital, located in Jenin, the hospital accepts referrals clients from other hospitals and offers medical, surgical and diagnostic services.

- Hospital (3): is a government hospital, located in Tubas, the hospital accepts referrals clients from other hospitals and offers medical, surgical and diagnostic services.
- Hospital (4): is a government hospital, located in Nablus, the hospital accepts referrals clients from other hospitals and offers medical, surgical and diagnostic services.
- Hospital (5): is a private hospital, located in Nablus, the hospital accepts referrals clients from other hospitals and offers medical, surgical and diagnostic services.
- Hospital (6): is a government hospital, located in Nablus, the hospital accepts referrals clients from other hospitals and offers medical, surgical and diagnostic services.
- Hospital (7): is a government hospital, located in Tulkarem, the hospital accepts referrals clients from other hospitals and offers medical, surgical and diagnostic services.
- Hospital (8): is a private hospital, located in Tulkaram, the hospital accepts referrals clients from other hospitals and offers medical, surgical and diagnostic services.
- Hospital (9): is a government hospital, located in Qalqilya, the hospital accepts referrals clients from other hospitals and offers medical, surgical and diagnostic services.
- Hospital (10): is a government hospital, located in Salfit, the hospital accepts referrals clients from other hospitals and offers medical, surgical and diagnostic services.
- Hospital (11): is a government hospital, located in Ramallah, the hospital accepts referrals clients from other hospitals and offers medical, surgical and diagnostic services.
- Hospital (12): is a private hospital, located in Ramallah, the hospital accepts referrals clients from other hospitals and offers medical, surgical and diagnostic services.

- Hospital (13): is a private hospital, located in Bethlehem, the hospital accepts referrals clients from other hospitals and offers healthcare and rehabilitation services.
- Hospital (14): is a government hospital, located in Bethlehem, the hospital accepts referrals clients from other hospitals and offers medical, surgical and diagnostic services.
- Hospital (15): is a government hospital, located in Hebron, the hospital accepts referrals clients from other hospitals and offers medical, surgical and diagnostic services.
- Hospital (16): is a private hospital, located in Hebron, the hospital accepts referrals clients from other hospitals and offers medical, surgical and diagnostic services.

3.6 Duration Of The Study

Ethical approval for this study was obtained on 1/1/2021. Data were collected in the month of (February and March 2021) as indicated in the proposal.

3.7 Instrumentation

Information was obtained from the nurses who working in the ED at government and private hospital in Palestine, aged from 21 year or more. The original instruments were adopted to determine the prevalence of secondary traumatic stress and their predictors and consequences among emergency nurses in Palestine. Through the survey which was adapted from their resources to measure the variables in the study, and to assess the relationship between dependent and independent variables. The study tools are about 8 scales each scale used to measure a one variable, these scales are arranged in a questionnaire that will distribute to a nurses. The compilation of the survey was done through literature review, consultation with supervisor and experts in the field of Human and specialist in internal medicine.

The survey will compose of three sections:

Section One (social demographic Data) which includes:

- A- Gender.
- B- Age.
- C- Educational level.
- D- Years of experience in the emergency departments (ED's).
- E- Marital status.
- F- Types of hospital (public or private).
- G- Whether the nurses provide care for COVID-19 patients.

Section Two (compose of tools that will measure the secondary traumatic stress and level of trauma exposer).

Which include: -

- 1- Secondary traumatic stress scale: -: it is a scale that is used to investigate the symptoms of secondary traumatic stress that includes Intrusion, avoidance, and arousal, this scale was adapted in our questionnaire and approval taken from the author. And also, secondary traumatic stress scale has a scoring level to determine whether the traumatic stress is mild, moderate, high od sever. The STSS total score is calculated by summing up the item scores, with a higher score indicating a higher frequency of symptoms. A total score less than 28 corresponds to "little or no STS," a score between 28 and 37 means "mild STS," between 38

and 43 “moderate STS,” between 44 and 48 “high STS,” and beyond 49 “severe STS”. (Dominguez-Gomez & Rutledge, 2009).

- 2- Perceived Stress Scale: - is a classic stress assessment instrument. The tool, while originally developed in 1983, remains a popular choice for helping us understand how different situations affect our feelings and our perceived stress. This scale is 10 items the, questions in this scale ask about your feelings and thoughts during the last month., this scale present in public, Perceived stress scale is included 10 items, and has a 5-scoring ranging level from never =0, to always=4, it is a reversing scale that (e.g., 0 = 4, 1 = 3, 2 = 2, 3 = 1 & 4 = 0) to the four positively stated items (items 4, 5, 7, & 8) and then summing across all scale items. A higher total score indicates a higher level of perceived stress (Sheldon Cohen,2015).

Section Three: - Measured the predictors and consequences of secondary traumatic stress: burnout, coping mechanisms, social support, organizational support, and job satisfaction

- 1- Maslach Burnout Inventory is a scale that is used to measure the severity of burnout developed in a work environment it is 21 items that measure the emotional exhaustions, depersonalization, and personal accomplishment. This scale was developed by Maslach and Jackson 1979 this scale was in public and approval taken from the author. Maslach Burnout inventory , has no specific scoring level , this scale assess a three component, which include (emotional exhaustion , depersonalization , and personal accomplishment) and there is no total or sum of these elements , the scores and calculated separately , emotional exhaustion had a three level of scoring from 0-18 low level , from 19-26 moderate level and above 27 considered high , as same the depersonalization that from 0-5 low level , 6-9 moderate level and above 10 high level , and personal accomplishment has the same strategy the total from

40 and above considered low level of personal accomplishment , and from 34-39 considered moderate and finally from 0-33 considered high (IWANICKI & L. SCHWAB, 1981).

- 2- Cope scale: - it is 28 questions that aims to assess the degree of coping by workers with the situations in working area. It was found in public, and we adapt this scale in our study and put it in the questionnaire, Coping scale measure the two types of coping (approach and avoidant coping) each type has an elements approach coping has include (acceptance, planning, positive reframing, use instrument support religion and humor) and avoidant include (self-blame, venting, self-distraction, denial) (Self-Distraction Cope1 + Cope19, Active Coping Cope2 + Cope7, Denial Cope3 + Cope8, Substance Use Cope4 + Cope11, Use of Emotional Support Cope5 + Cope15, Use of Instrumental Support Cope10 + Cope23, Behavioral Disengagement Cope6 + Cope16, Venting Cope9 + Cope21, Positive Reframing Cope12 + Cope17, Planning Cope14 + Cope25, Humor Cope18 + Cope28, Acceptance Cope20 + Cope24 Religion Cope22 + Cope27 Self-Blame Cope13 + Cope26) increasing scores of each elements, will increase the level of coping (Jalowiec, A., Murphy, S. P., & Powers, M. J. 1984).
- 3- Multi-dimensional scale of perceived social support: it is a scale that is used used in the study, that is used to measure the social support provided to emergency nurses that is consider a one predictor of secondary traumatic stress. It is 12 items investigating family and friend's support. It is present in public and approval taken from the author. This scale has a score to determine the level of social support provided, the mean scale score ranging from 1 to 2.9 could be considered low support, a score of 3 to 5 could be considered moderate support, a score from 5.1 to 7 could be considered high support. (Zimet and Farley,2010).

- 4- Perceived organizational support scale: it is 10 items that aims at measuring the degree of support that are provided to the employees, in our study organizational support is one of the many predictors that predict the prevalence of secondary traumatic stress, this scale present in public, but a permission taken from the author. A score from 10-26 is considered very low, a score from 27-31 is low, from 32-38 considered average, from 39-41 is high and from 42-50 considered very high level of organizational support (Robert Eisenberger, 2019).
- 5- Job Satisfaction Scale: This scale is used to measure the degree of job satisfaction by the employee. In this research, the researcher used this scale to measure the job satisfaction among nurses in emergency department. This scale consists of 10 items. The approval was taken from the author. A score from 10-26 is considered very low, a score from 27-31 is low, from 32-38 considered average, from 39-41 is high and from 42-50 considered very high level of job satesfaction (Macdonald, S., & MacIntyre, P. 1997).

The survey consisted of closed-ended questions based on Likert scale of strongly agree (1) or always, agree (2) or Frequently, Natural (3) or occasionally, disagree (4) or rarely, and strongly disagree (5) or never, that will be assessed through statistical analysis, percentage, mean, frequently, correlation, and independent t-test).

The questions included in (Appendices)

3.8 Inclusion and Exclusion Criteria

Inclusion Criteria: -

Inclusion criteria is all nurses that have a certification in nursing despite of degree (diploma, Bachelor, or master) and have at least 6-month experiences working at emergency department and in 21 years of age and above.

Exclusion Criteria: -

- 1- Nurses that are not working in emergency department
- 2- Nursing student
- 3- New employment nurses with less than 6-month experiences in emergency room
- 4- And nurses that are newly transferee from other department to emergency room that are less than 6 months experiences at emergency room.
- 5-Age younger than 21 years.
- 6- Part time job.

3.9 Sample and Sampling

There is one classification of sampling design: non – probability. When using non-probability sampling, the researcher selects the participants based on which persons are most suitable and more representative of the population of interest. In this study , convenience sampling was used , which is one type of non-probability sampling strategy , and is also used in quantitative approaches .The rational for the choice of this type of sampling within the study was its easy access to participants; however ,the disadvantage of this sampling is that it limits the ability to generalize .Using this approach , the researcher selects the required sample , having regard for the requirement to involve certain criteria and elements within the study. Thus, it was important to collect data from those affected by the problem. For the purpose of this study, eligible emergency nurses and physicians were invited to participate.

3.10 Pilot Study

A pilot study was conducted among 30 Emergency nurses, they filled the questionnaire before starting the whole data collection as a pre-test to point out weaknesses in wording, predicted response rate, determined the real time needed to fill the questionnaire and identified areas of vagueness and to test the validity and suitability of the questionnaire. The time needed to filling the questionnaires is about 15-20 minutes, the filling of the questionnaires takes the same of recommended time, but 15-20 minutes in emergency department is too much for nurses to leave their patients due to high number of items in questionnaire and the workload, so recommended to fill it in the holiday or in the break shift.

3.11 Validity

After constructing the questionnaire, the research questionnaire was presented to a group of ten experts in the field of scientific research, who are holding a PhD in nursing, to judge face and content validity, and to get feedback and comments.

3.12 Reliability

The reliability of the questionnaire tested immediately after data cleaning and pilot study and statistically by Cronbach Alpha test with accepted reliability coefficient not less than 0.7. The reliability improved by standardization of the instrument and its implementation, design of questionnaire manual and data collection collected by the researcher himself as shown in a table 3.13.1.

Table 3.13.1: Reliabilities Estimates For Domains After Pilot Study:

Scale	Cronbach's Alpha Based on Standardized Items
STSS	.952
PSS	.612
MBIS	.940
JSS	.919
MSBSS	.974
POS	.977
CM	.945

3.13 Data Collection

The timeline for collecting data was from (21st January to 31st March 2021) as indicated in the study time frame. Distribution of Surveys to identified participants for the main study was by hand during morning and evening shift. The researcher waited for the participants to complete the surveys, which improved the response rate. (258) surveys that were distributed and (189) were returned. Therefore, the response rate was (75) %.

3.14 Ethical Consideration

Ethical approval for this study was obtained by the Health Research Ethics Committee of the AAUP, from the Palestinian MOH and of the hospitals administrators where the study was conducted.

3.15 Analysis Plan

In this study, statistical analysis of the collected data was conducted using the statistical package for the social science (SPSS) version 23. SPSS is a software package is used for conducting statistical analysis, manipulating data and generating tables and graphs by using descriptive and inferential statistics such as frequency tables, relative frequencies, graphically illustrated is used bar charts. Means and standard deviations is used to summarize data. So, the Surveys result was entered directly into the database and then data cleaning was conducted. This enabled the identification existence of potentially statistically significant correlations between the relevant variables.

Chapter four: Results

4.1 Introduction:

This thesis aimed to figure out the prevalence of secondary traumatic stress among emergency nurses in Palestine during the COVID- 19 pandemic, to find out the predictors and consequences of secondary traumatic stress among emergency nurses in Palestine during the COVID- 19 pandemic. Finally, it is also aimed to determine if there is a relationship between emergency nurses' personal characteristics and secondary traumatic stress in Palestine during the COVID- 19 pandemic.

4.2 Demographics And Characteristics Of Emergency Nurses in Palestine During The COVID- 19 Pandemic:

The results of the analysis showed that the percentage of male nurses was higher than the percentage of female nurses (63.5% vs. 34.9%) among the nurses working in emergency departments, and the percentage of nurses for the age group between 21-29 years old was the most (61.4%) compared to the older age groups (30-39 [30.7%] & 40-49 [5.8%]). In addition, nearly half of them were married (45%) and had a bachelor university degree (61.4%). As for their work experience, most (60.3%) of them were less than five years old and worked in public hospitals (60.3%). For more details, see table 1.

Table 1: Demographics And Characteristics Of Emergency Nurses' Participants (n=189)

		Frequency(N)	Percent(%)
Gender	Male	120	63.5

	Female	66	34.9
Age	21-29	116	61.4
	30-39	58	30.7
	40-49	11	5.8
Marital Status	Married	85	45.0
	Single	101	53.4
Level of education	Diploma	51	27.0
	Bachelor	116	61.4
	Master	17	9.0
Years of experiences	1-5 years	114	60.3
	6-10 years	44	23.3
	11-20 years	21	11.1
	>20 years	7	3.7
Type of hospital	Private	72	38.1
	Public	114	60.3

4.2.1 History Of Providing Non-ROSC CPR And Care For COVID-19 Patient:

The vast majority (83.6%) of nurses participating in the study and working in emergency departments had provided cardiopulmonary resuscitation to patients who had suffered severe shock and their attempts were unsuccessful, as the patients ended up dying. As for providing care to patients with COVID-19 in ED, most (87.8%) emergency department nurses answered that they provided care to COVID-19 patients.

Table 2: Emergency Participants’ Nurses’ History Of Providing Non-ROSC CPR And Care For COVID-19 Patient

		Frequency	Percent
Provide CPR for sever shocked patient and then the CPR end of death of patient in the ED?	Yes	158	83.6
	No	27	14.3
Provide a care for a COVID-19 patient in ED?	Yes	166	87.8
	No	20	10.6

ED: Emergency Department

4.3 Secondary Traumatic Stress Among Emergency Nurses In Palestine During The COVID- 19 Pandemic:

The secondary traumatic stress rate among the nurses working in the emergency departments participating in the study was 47 out of 75, where most of them, or nearly 70%, their secondary traumatic stress rate was between 34.5 to 60.5 out of 75.

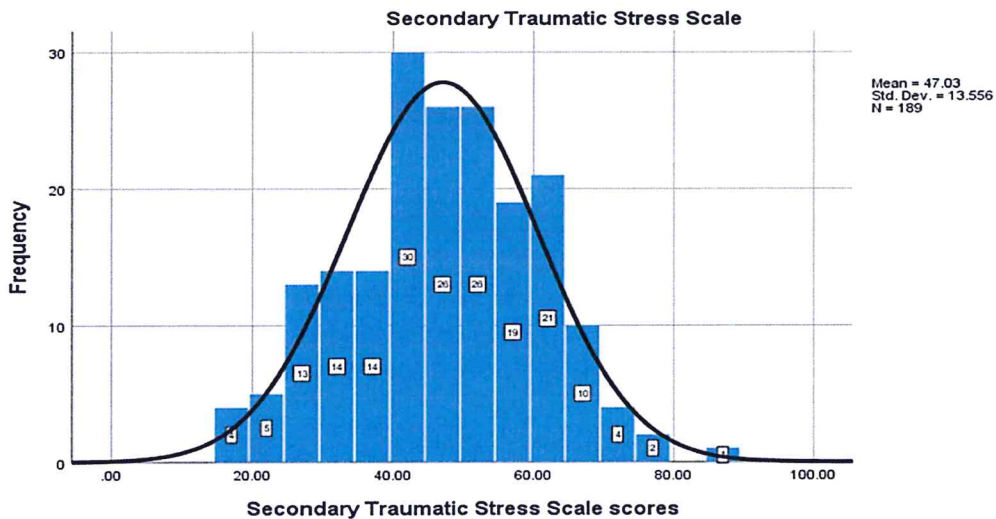


Figure 1: Histogram of Secondary Traumatic stress Scale distribution

When examining the responses of the participants from the emergency nurses to the questions about the secondary traumatic stress level scale, it was found that the highest responses were regard the statement “My heart started pounding when I thought about my work with clients” which belonging to the intrusive subscale, then “I felt emotionally numb My heart”, which belonged to the avoidance subscale, and then “I expected something bad to happen” which belongs to arousal subscale (3, 2.96, & 2.89 out of 5 respectively), while on the other hand, the least average responses of emergency participating nurses were regard the statement “I had trouble concentrating” (2.54 out of 5) which related to arousal subscale, then “I avoided people, places, or things that reminded me of my work with clients” (2.58 out of 5) which related to avoidance subscale, and then “I avoided people, places, or things that reminded me of my work with clients” (2.61 out of 5) which related to intrusive subscale. For more details, see table 3.

Table 3: Secondary Traumatic Stress Scale Items Of Emergency Nurses Study Participants’ Responses

Intrusive	Never N (%)	Rare N (%)	Occasion N (%)	Often N (%)	Always N (%)	RM
My heart started pounding when I thought about my work with clients	17(9.0)	32(16.9)	86(45.5)	42(22.2)	12(6.3)	3
Reminders of my work with clients upset me	26(13.8)	49(25.9)	59(31.2)	40(21.2)	15(7.9)	2.84
It seemed as if I was reliving the trauma(s) experienced by my client(s)	21(11.1)	45(23.8)	82(43.4)	36(19.0)	5(2.6)	2.78
I thought about my work with clients when I didn't intend to	25(13.2)	40(21.2)	86(45.5)	31(16.4)	7(3.7)	2.76

I avoided people, places, or things that reminded me of my work with clients	44(23.3)	44(23.3)	51(27.0)	41(21.7)	9(4.8)	2.61
Avoidance	Never	Rare	Occasion	Often	Always	
	N (%)	N (%)	N (%)	N (%)	N (%)	
I felt emotionally numb	16(8.5)	29(15.3)	95(50.3)	44(23.3)	5(2.6)	2.96
I noticed gaps in my memory about client sessions	26(13.8)	40(21.2)	75(39.7)	39(20.6)	9(4.8)	2.81
I felt discouraged about the future	38(20.1)	35(18.5)	59(31.2)	45(23.8)	12(6.3)	2.78
I had little interest in being around others	30(15.9)	44(23.3)	66(34.9)	45(23.8)	4(2.1)	2.73
I wanted to avoid working with some clients	35(18.5)	36(19.0)	68(36.0)	45(23.8)	5(2.6)	2.73
I was less active than usual	34(18.0)	39(20.6)	74(39.2)	33(17.5)	9(4.8)	2.7
I avoided people, places, or things that reminded me of my work with clients	47(24.9)	36(19.0)	62(32.8)	38(20.1)	6(3.2)	2.58
Arousal	Never	Rare	Occasion	Often	Always	
	N (%)	N (%)	N (%)	N (%)	N (%)	
I expected something bad to happen	21(11.1)	43(22.8)	73(38.6)	40(21.2)	12(6.3)	2.89
I felt jumpy	26(13.8)	40(21.2)	79(41.8)	37(19.6)	7(3.7)	2.78
I was easily annoyed	30(15.9)	42(22.2)	71(37.6)	34(18.0)	12(6.3)	2.77
I had trouble sleeping	39(20.6)	34(18.0)	66(34.9)	35(18.5)	15(7.9)	2.75
I had trouble concentrating	43(22.8)	42(22.2)	69(36.5)	28(14.8)	7(3.7)	2.54

RM: Rank Mean

4.3.1 The Prevalence Of Secondary Traumatic Stress Levels Among Emergency Nurses:

It is clear, as Figure No. 2 shows, that the nurses in emergency departments suffer from high to sever Secondary traumatic stress levels, as 45% of ER nurses suffer from sever level Secondary

traumatic stress, and about 60% of them suffer between high and severe secondary traumatic stress, while just 23% of them suffer from mild or less level of Secondary traumatic stress. See figure 2.

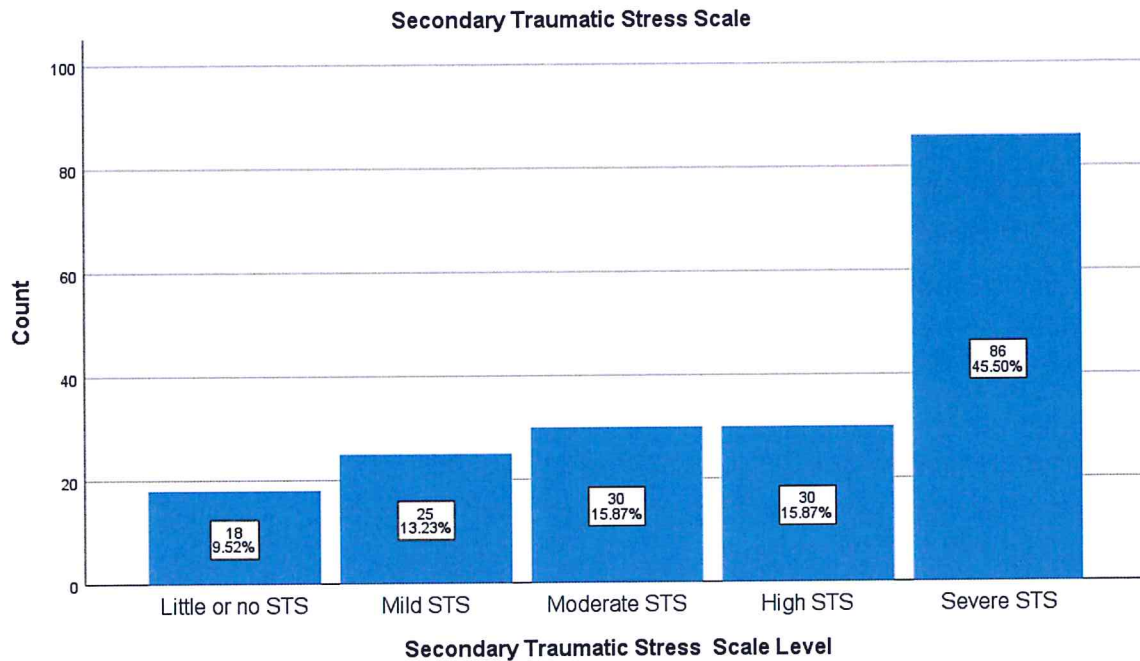


Figure 2: Secondary traumatic stress levels of participants' responses

4.4 Perceived Stress Scale Among Emergency Department Nurses:

The perceived stress averages among the nurses working in the emergency departments participating in the study was 19.77 out of 40, where most of them, or nearly 70%, their perceived stress averages were between 15.5 to 23.5 out of 40. See figure 3.

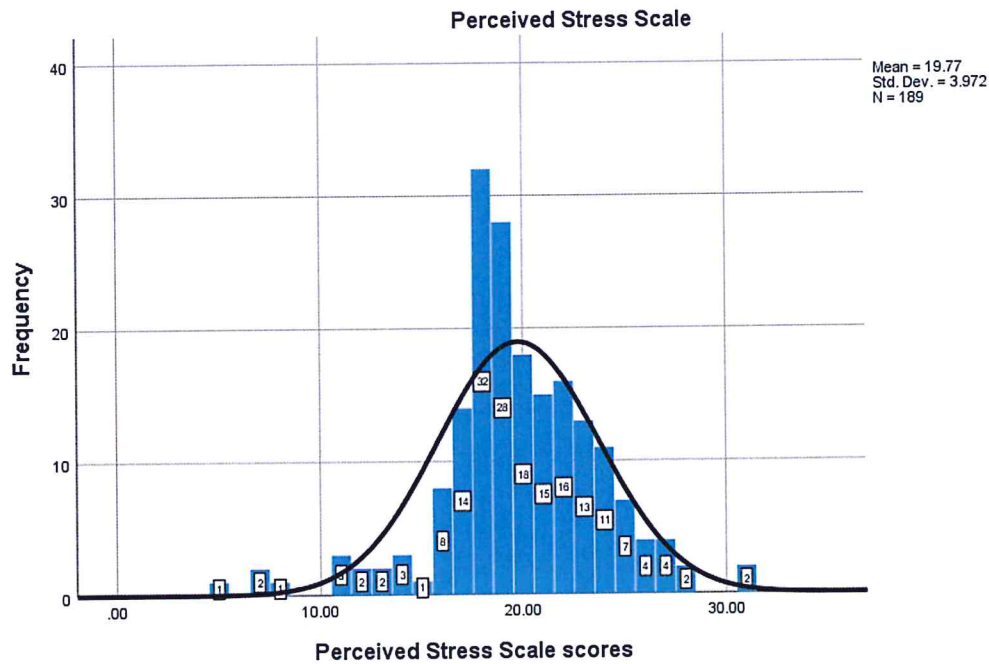


Figure 3: perceived stress distribution among ED nurses

The answers of the emergency nurses participating in the study reflected that the highest response rate, when they were asked about their feelings and thoughts during the last month, were “have often felt that things were going your way” (2.17 out of 4), “have often been able to control irritations in your life” (2.15 out of 4), and “have often Felt nervous and stressed” (2.08 out of 4).

While, on the other hand, the lowest averages for ED nurse’s responses were “have often felt that they were unable to control the important things in their life” (1.9 out of 4), “have often been upset because of something that happened unexpectedly” (1.82 out of 4), and “have often found that they could not cope with all the things that they had to do” (1.81 out of 4).

Table 4: Perceived Stress Scale Items Of ED Nurses Participants' Responses

In the last month how often have you:	Never N (%)	Almost never N (%)	Sometime s N (%)	Fairly often N (%)	Very often N (%)	RM
Felt that things were going your way?	4(2.1)	45(23.8)	72(38.1)	51(27.0)	17(9.0)	2.17
Been able to control irritations in your life?	9(4.8)	37(19.6)	70(37.0)	62(32.8)	11(5.8)	2.15
Felt nervous and stressed?	7(3.7)	46(24.3)	76(40.2)	45(23.8)	15(7.9)	2.08
Been angered because of things that happened that were outside of your control?	8 (4.2)	54(28.6)	68(36.0)	50(26.5)	9(4.8)	1.99
Felt that you were on top of things?	11(5.8)	49(25.9)	71(37.6)	53(28.0)	5(2.6)	1.96
Felt confident about your ability to handle your personal problems?	13(6.9)	55(29.1)	61(32.3)	50(26.5)	10(5.3)	1.94
Felt difficulties were piling up so high that you could not overcome them?	16(8.5)	50(26.5)	68(36.0)	39(20.6)	16(8.5)	1.94
Felt that you were unable to control the important things in your life?	19(10.1)	48(25.4)	65(34.4)	46(24.3)	11(5.8)	1.90
Been upset because of something that happened unexpectedly?	14(7.4)	53(28.0)	77(40.7)	43(22.8)	2(1.1)	1.82
Found that you could not cope with all the things that you had to do?	16(8.5)	62(32.8)	60(31.7)	44(23.3)	7(3.7)	1.81

The emergency nurses participating in the study suffered from a moderate rate of perceived stress level, as the results showed that nearly 90% of them suffered from a moderate perceived stress level rate, while the rest of them were suffering from either a low perceived stress level rate (6%) or a high perceived stress level rate (4%).

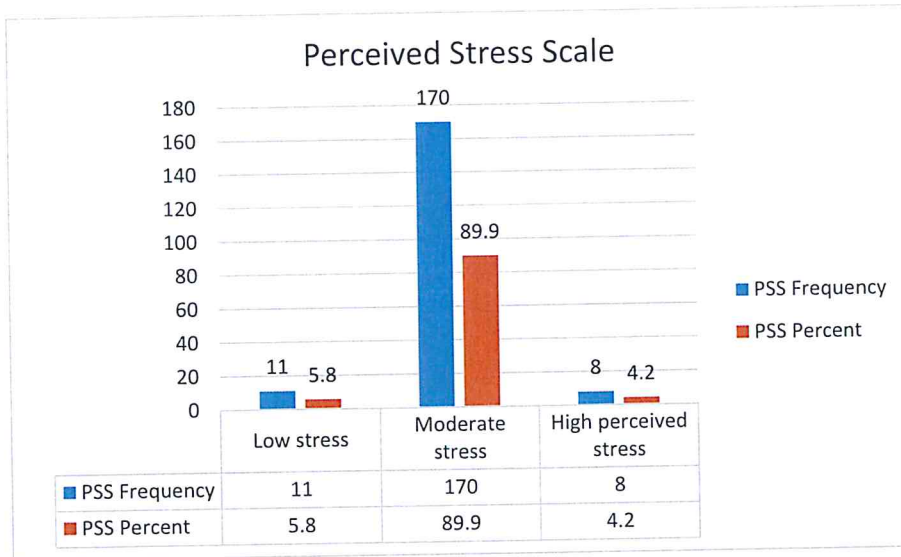


Figure 4: Perceived Stress Scale levels of participants' responses

4.5 The Maslach Burnout Inventory (MBI) To Assess The Frequency And Intensity Of Perceived Burnout Among Persons In The Helping Professions:

4.5.1 ED Nurses Emotional Exhaustion:

For the emotional exhaustion subscale of Maslach Burnout Inventory (MBI) Scale items, the highest items response averages by the ED nurses participating in the study were for the statements “I feel used up at the end of the workday” (3.24 out of 5), “I feel burned out from my work” (3.24 out of 5), and “I feel I'm working too hard on my job” (3.22 out of 5). While the least averages of items related to emotional exhaustion were “I feel emotionally drained from my work” (2.95 out of 5), “I feel like I'm at the end of my rope” (2.82 out of 5), and “I feel frustrated by my job” (2.80 out of 5).

4.5.2 ED Nurses Depersonalization:

For the Depersonalization subscale of Maslach Burnout Inventory (MBI) Scale items, the highest items response averages by the ED nurses participating in the study were for the statements “I feel recipients blame me for some of their problems” (2.83 out of 5), “I worry that this job is hardening me emotionally” (2.76 out of 5), and “I’ve become more callous toward people since I took this job” (2.70 out of 5). While the least averages of items related to emotional exhaustion were “I feel I treat some recipients as if they were impersonal "objects” (2.53 out of 5), and “I don’t really care what happens to some recipients” (2.44 out of 5).

4.5.3 ED Nurses Personal Accomplishment:

For the Personal Accomplishment subscale of Maslach Burnout Inventory (MBI) Scale items, the highest items response averages by the ED nurses participating in the study were for the statements “In my work, I deal with emotional problems very calmly” (2.93 out of 5), “I feel very energetic” (2.95 out of 5), and “I feel exhilarated after working closely with my recipients” (3.06 out of 5). While the least averages of items related to emotional exhaustion were “I deal very effectively with the problems of my recipients” (3.21 out of 5), “I can easily understand how my recipients feel about things” (3.21 out of 5), and “I feel I’m positively influencing other people's lives through my work” (3.26 out of 5)

Table 5: The Maslach Burnout Inventory (MBI) Scale Items Of Emergency Department Participants' Responses

Emotional Exhaustion	Never N (%)	Rare N (%)	Occasion N (%)	Often N (%)	Very often N (%)	RM
I feel used up at the end of the workday.	12(6.3)	36(19.0)	60(31.7)	57(30.2)	24(12.7)	3.24
I feel burned out from my work.	18(9.5)	22(11.6)	69(36.5)	56(29.6)	24(12.7)	3.24
I feel I'm working too hard on my job.	15(7.9)	29(15.3)	66(34.9)	58(30.7)	21(11.1)	3.22
I feel fatigued when I get up in the morning and have to face another day on the job	16(8.5)	32(16.9)	72(38.1)	48(25.4)	21(11.1)	3.14
Working with people all day is really a strain for me	20(10.6)	37(19.6)	63(33.3)	47(24.9)	22(11.6)	3.07
Working directly with people puts too much stress on me.	18(9.5)	42(22.2)	65(34.4)	48(25.4)	16(8.5)	3.01
I feel emotionally drained from my work	19(10.1)	37(19.6)	74(39.2)	52(27.5)	7(3.7)	2.95
I feel like I'm at the end of my rope.	25(13.2)	46(24.3)	66()	42(22.2)	10(5.3)	2.82
I feel frustrated by my job.	32(16.9)	42(22.2)	60(31.7)	41(21.7)	14(7.4)	2.80
Depersonalization	Never N (%)	Rare N (%)	Occasion N (%)	Often N (%)	Very often N (%)	RM
I feel recipients blame me for some of their problems	31(16.4)	37(19.6)	61(32.3)	53(28.0)	7(3.7)	2.83
I worry that this job is hardening me emotionally.	31(16.4)	41(21.7)	69(36.5)	39(20.6)	9(4.8)	2.76
I've become more callous toward people since I took this job	38(20.1)	36(19.0)	69(36.5)	36(19.0)	10(5.3)	2.70

I feel I treat some recipients as if they were impersonal "objects."	43(22.8)	47(24.9)	60(31.7)	34(18.0)	5(2.6)	2.53
I don't really care what happens to some recipients.	51(27.0)	45(23.8)	56(29.6)	32(16.9)	5(2.6)	2.44
Personal Accomplishment	Never N (%)	Rare N (%)	Occasion N (%)	Often N (%)	Very often N (%)	RM
In my work, I deal with emotional problems very calmly.	20(10.6)	42(22.2)	68(36.0)	49(25.9)	10(5.3)	2.93
I feel very energetic.	16(8.5)	43(22.8)	74(39.2)	47(24.9)	9(4.8)	2.95
I feel exhilarated after working closely with my recipients.	19(10.1)	34(18.0)	65(34.4)	58(30.7)	13(6.9)	3.06
I can easily create a relaxed atmosphere with my recipients.	16(8.5)	35(18.5)	65(34.4)	66(34.9)	7(3.7)	3.07
I have accomplished many worthwhile things in this job.	17(9.0)	38(20.1)	55(29.1)	63(33.3)	16(8.5)	3.12
I deal very effectively with the problems of my recipients.	14(7.4)	23(12.2)	74(39.2)	65(34.4)	13(6.9)	3.21
I can easily understand how my recipients feel about things.	14(7.4)	26(13.8)	67(35.4)	71(37.6)	11(5.8)	3.21
I feel I'm positively influencing other people's lives through my work	12(6.3)	29(15.3)	69(36.5)	55(29.1)	24(12.7)	3.26

Looking at the burnout subscales, we find that the Emotional Exhaustion had an average of 27.5 out of 45, whereby 70% of them were between 20 and 35 out of 45. As for the Depersonalization, the average was 13 out of 25, where it was approximately 70%, of whom the Depersonalization rate ranged from 9 to 17 out of 25. While for the third subscale, personal accomplishment, the

average was 24.8 out of 40, where it was approximately 70%, of whom the personal accomplishment average ranged from 18.5 to 31 out of 40.

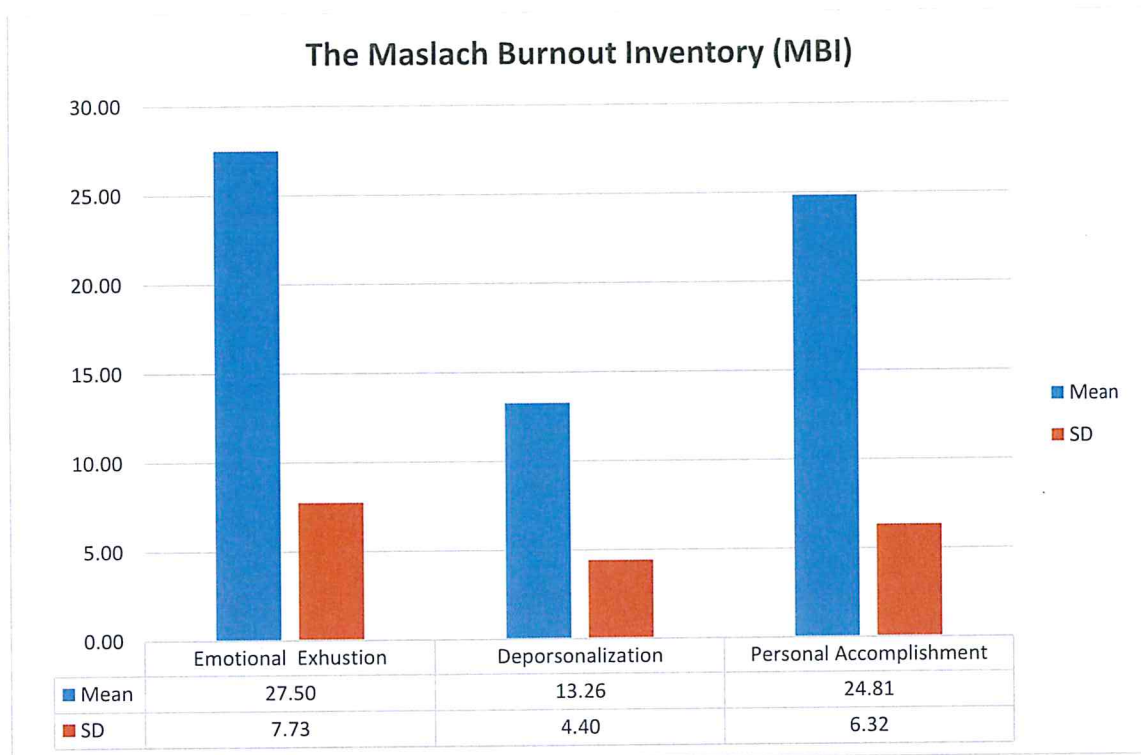


Figure 5: Maslach Burnout Inventory Scale Levels of ED Nurses Participants' Responses

4.6 Job Satisfaction Scale: -

When nurses working in emergency department about job satisfaction, the mean was 27.9 out of 50 and 70% of them their average of satisfaction was between 19- 36 out of 50.

Although emergency department nurses had low level of job satisfaction (27.9 out of 50), 46.6% of nurses feel close to the people at work, 42.8% of them used all their talents and skills at work, 38.6% of them feel good about their job, 34.9% of them get along with their supervisor, 33.9% feel good about working at their company, 28.6% believe work is good or their physical health,

33.9% receive recognition to a job well done, 27% feel secure about their job, 23.3% stated that their wages are good, and 22.8% believe management is concerned about them.

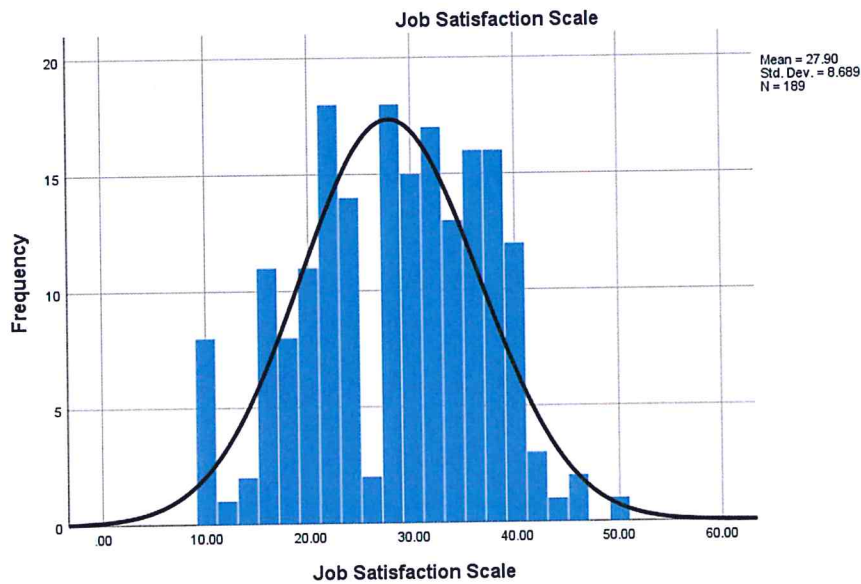


Figure 6: Histogram Distribution Of Job Satisfaction Scale Of Participants

Table 6: Job Satisfaction Scale Items Of ED Nurses Participants' Responses

	Strongly disagree	disagree	Don't agree	Agree	Strongly agree	RM
I feel close to the people at work	39(20.6)	7(3.7)	55(29.1)	72(38.1)	16(8.5)	3.10
All of my talents and skills are used at work	45(23.8)	9(4.8)	54(28.6)	67(35.4)	14(7.4)	2.98
I feel good about my job	38(20.1)	17(9.0)	61(32.3)	62(32.8)	11(5.8)	2.95
I get along with my supervisor	42(22.2)	13(6.9)	68(36.0)	54(28.6)	12 (6.3)	2.90
I feel good about working at this company	36(19.0)	20 (10.6)	69(36.5)	58(30.7)	6(3.2)	2.88

On the whole, I believe work is good or my physical health	51(27.0)	20(10.6)	64(33.9)	48(25.4)	6(3.2)	2.67
I receive recognition to a job well done	51(27.0)	34(18.0)	40(21.2)	57(30.2)	7(3.7)	2.66
I feel secure about my job	52(27.5)	21(11.1)	65(34.4)	42(22.2)	9(4.8)	2.66
My wages are good	49(25.9)	30(15.9)	66(34.9)	38(20.1)	6(3.2)	2.59
I believe management is concerned about me	47(24.9)	44(23.3)	55(29.1)	40(21.2)	3(1.6)	2.51

Most (61.9%) of nurses working in emergency department had low level of job satisfaction, as seen Figure7, and only 10.1% of emergency department nurses had high level of job satisfaction while the rest 28% of them had an average level of job satisfaction.



Figure 7: Distribution Of Job Satisfaction Scale Categories Of ED Nurses Participants

4.7 Multidimensional Scale of Perceived Social Support Scale Items Of ED

Nurses Participants' Responses:

Regarding the significant other of ED nurses perceived social support, 54.6% of nurses feel that there is a special person in their life who cares about their feelings, 51.8% feel they have a special person who is a real source of comfort to them, 48.7% feel that there is a special person who is around when they are in need, and 46% feel there is a special person with whom they can share joys and sorrows.

ER nurses perceived the family part in Social Support as tries to help them (56.6%), the source of emotional help & support need (56.1%), willing to help them make decisions (52.9%), and whom they can talk about their problems with them (46.6%).

Friends perceived as a part of ED nurses Social Support as really try to help them (50.2%), a person they can share their joys and sorrows (49.2%), a person they can count on when things go wrong (49.7%), a person they can talk about their problems with him (49.8%)

Table 7: Multidimensional Scale Of Perceived Social Support Scale Items Of ED Nurses Participants' Responses

	Disagree			Neutral	Agree			RM
	Very strong N (%)	Strong N (%)	Mildly N (%)		Mildly N (%)	Strong N (%)	Very strong N (%)	
Significant Other								
There is a special person who	13(6.9)	16(8.5)	23(12.2)	45(23.8)	50(26.5)	32(16.9)	10(5.3)	4.26

is around when I am in need								
There is a special person with whom I can share joys and sorrows.	13(6.9)	14(7.4)	31(16.4)	44(23.3)	40(21.2)	36(19.0)	11(5.8)	4.25
I have a special person who is a real source of comfort to me.	12(6.3)	17(9.0)	30(15.9)	32(16.9)	38(20.1)	35(18.5)	25(13.2)	4.44
There is a special person in my life who cares about my feelings.	12(6.3)	15(7.9)	24(12.7)	35(18.5)	44(23.3)	33(17.5)	26(13.8)	4.52
Family								
My family really tries to help me.	8(4.2)	12(6.3)	25(13.2)	37(19.6)	35(18.5)	41(21.7)	31(16.4)	4.72
I get the emotional help & support I need from my family.	9(4.8)	14(7.4)	29(15.3)	31(16.4)	40(21.2)	42(22.2)	24(12.7)	4.59
I can talk about my problems with my family.	12(6.3)	19(10.1)	28(14.8)	42(22.2)	38(20.1)	31(16.4)	19(10.1)	4.29
My family is willing to help me make decisions.	14(7.4)	15(7.9)	24(12.7)	36(19.0)	35(18.5)	38(20.1)	27(14.3)	4.51
Friends								

My friends really try to help me (50.2%)	14(7.4)	9(4.8)	34(18.0)	37(19.6)	38(20.1)	41(21.7)	16(8.5)	4.39
I can count on my friends when things go wrong (49.7%).	10(5.3)	14(7.4)	32(16.9)	39(20.6)	44(23.3)	38(20.1)	12(6.3)	4.35
I have friends with whom I can share my joys and sorrows (49.2%).	11(5.8)	15(7.9)	27(14.3)	43(22.8)	42(22.2)	37(19.6)	14(7.4)	4.36
I can talk about my problems with my friends (49.8%)	17(9.0)	13 (6.9)	32(16.9)	33(17.5)	47(24.9)	30(15.9)	17(9.0)	4.26

Most (83.6%) of ED nurses considered their perceived social support to be moderate (46.6%) to high (37.0%) and only 16.4% of ED nurses revealed that their perceived social support to be low.

See figure 8.

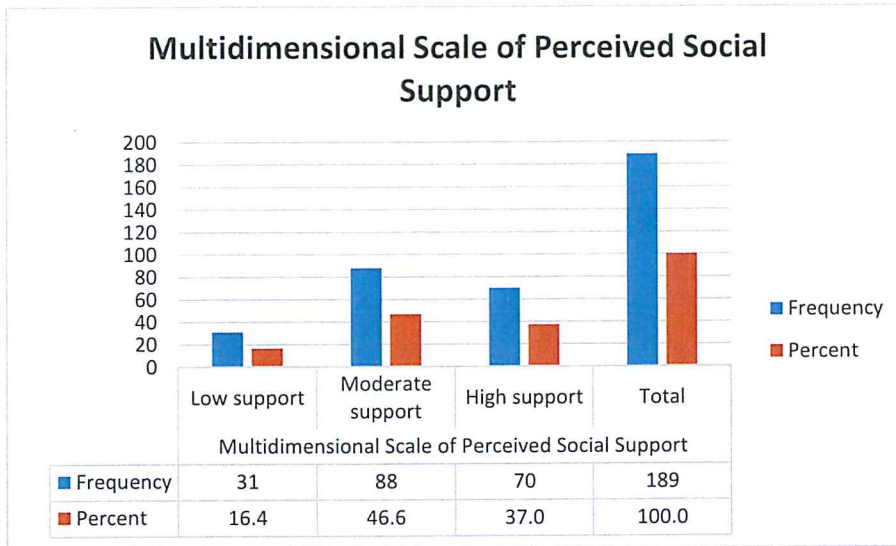


Figure 8: Distribution Of Multidimensional Scale of Perceived Social Support Scale Categories Of Participants

Although the averages of ED nurse's sources (significant other, family, & friends) were approximately close, but as seen in figure 9, ED nurses' family was the highest source of perceived social support in comparing with ED nurses' friends (4.53 vs. 4.34 out of 7) and ED nurses' significant other (4.53 vs. 4.37 out of 7)

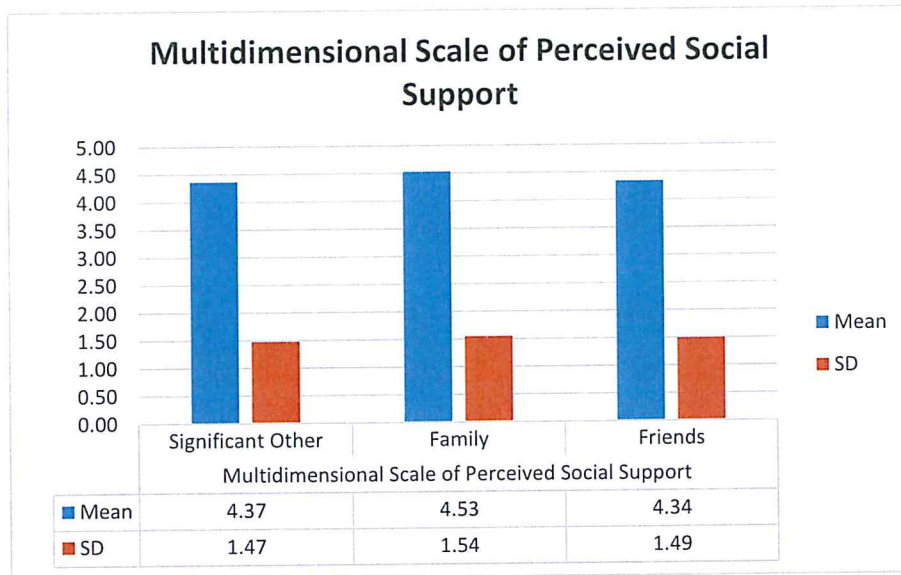


Figure 9: ED Nurses Multidimensional Scale Of Perceived Social Support Scale Categories Levels

4.8 Perceived Organizational Support: -

Unfortunately, 27 % or less of ED nurses perceived their organization as a source of support. As, only 27% of ED nurses agree that their organization values their contribution to its well-being, 23.3% of them agree that their organization considers their goals and values, 26.4% of them agree that help is available from their organization when they have a problem, 21.2% of them agree that their organization really cares about their well-being, 22.7% of them agree that their organization wishes to give them the best possible job for which they are qualified, 21.7% of them agree that their organization cares about their general satisfaction at work, 26.4% of them agree that their organization takes pride in their accomplishments at work, 20.5% of them agree that their organization would forgive an honest mistake on their part, 21.7% of them agree that their organization is willing to extend itself in order to help them perform their job to the best of their ability, 15.8% of them agree that their organization cares about their opinions

Table 8: Perceived Organizational Support Scale Items Of ED Nurses Participants' Responses

	Disagree			Neither	Agree		
	Strong N (%)	Moderate N (%)	Slight N (%)		Slight N (%)	Moderate N (%)	Strong N (%)
The organization:							
Values my contribution to its well-being	42(22.2)	23(12.2)	47(24.9)	26(13.8)	41(21.7)	9(4.8)	1(0.5)
Strongly considers my goals and values.	40(21.2)	27(14.3)	42(22.2)	36(19.0)	30(15.9)	13(6.9)	1(0.5)
Help is available when I have a problem.	31(16.4)	29(15.3)	53(28.0)	26(13.8)	35(18.5)	14(7.4)	1(0.5)
Really cares about my well-being.	49(25.9)	25(13.2)	36(19.0)	39(20.6)	27(14.3)	11(5.8)	2(1.1)
Wishes to give me the best possible job for which I am qualified.	48(25.4)	22(11.6)	41(21.7)	35(18.5)	29(15.3)	13(6.9)	1(0.5)
cares about my general satisfaction at work	46(24.3)	23(12.2)	40(21.2)	39(20.6)	32(16.9)	6(3.2)	3(1.6)
Takes pride in my accomplishments at work.	40(21.2)	25(13.2)	37(19.6)	37(19.6)	36(19.0)	11(5.8)	3(1.6)
Would forgive an honest mistake on my part.	49(25.9)	23(12.2)	39(20.6)	41(21.7)	29(15.3)	7(3.7)	1(0.5)
Is willing to extend itself in order to help me perform my job to the best of my ability.	50(26.5)	22(11.6)	38(20.1)	38(20.1)	37(19.6)	3(1.6)	1(0.5)
Cares about my opinions.	47(24.9)	27(14.3)	35(18.5)	50(26.5)	22(11.6)	7(3.7)	1(0.5)

The emergency department nurses had a low level of perceived organizational support (Average 31.14 out of 70) as seen in figure 10. Furthermore, nearly 70% of the participating emergency department nurses had an average of perceived organizational support between 17 to 35 out of 70

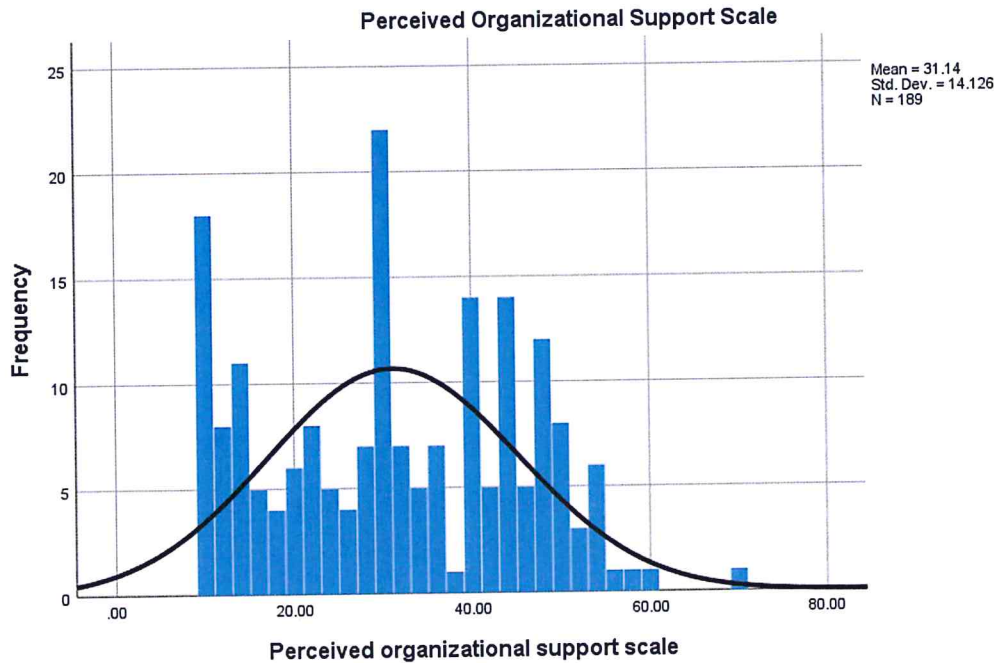


Figure 10: ED Nurses Perceived Organizational Support Scale Categories Levels

4.9 Coping Scale:

4.9.1 Avoidant Coping Mechanism:

The highest avoidant coping mechanism used by emergency department nurses were “blaming themselves for things that happened” (2.56 out of 4), “criticizing themselves” (2.47 out of 4), and “doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping” (2.46 out of 4).

While the least avoiding coping mechanism used by emergency department nurses were “using alcohol or other drugs to themselves feel better.” (1.95 out of 4) and “using alcohol or other drugs to help them get through it” (1.98 out of 4). For more details, see table 9.

Table 9: Avoidant Coping Scale Items Of ED Nurses Participants’ Responses

	<i>I have been doing this a:</i>				
	Ever	little bite	Medium	a lot	RM
	N (%)	N (%)	N (%)	N (%)	
I’ve been turning to work or other activities to take my mind off things	32(16.9)	69(36.5)	73(38.6)	15(7.9)	2.38
I’ve been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.	34(18.0)	60(31.7)	70(37.0)	25(13.2)	2.46
I’ve been saying to myself “this isn’t real”.	48(25.4)	56(29.6)	67(35.4)	18(9.5)	2.29
I’ve been refusing to believe that it has happened.	47(24.9)	62(32.8)	66(34.9)	14(7.4)	2.25
I’ve been using alcohol or other drugs to myself feel better.	88(46.6)	36(19.0)	51(27.0)	14(7.4)	1.95
I’ve been using alcohol or other drugs to help me get through it	78(41.3)	50(26.5)	47(24.9)	14(7.4)	1.98
I’ve been giving up trying to deal with it.	47(24.9)	74(39.2)	54(28.6)	14(7.4)	2.19
to cope. I’ve been giving up the attempt	47(24.9)	69(36.5)	54(28.6)	19(10.1)	2.24
I’ve been saying things to let my unpleasant feeling escape.	29(15.3)	73(38.6)	70(37.0)	17(9.0)	2.40
I’ve been expressing my negative feelings.	30(15.9)	65(34.4)	74(39.2)	20(10.6)	2.44
I’ve been criticizing myself.	29(15.3)	67(35.4)	69(36.5)	24(12.7)	2.47
I’ve been blaming myself for things that happened.	30(15.9)	59(31.2)	65(34.4)	35(18.5)	2.56

4.9.2 Approach Coping Mechanism:

The highest approach coping mechanism used by emergency department nurses were “taking action to try to make the situation better.” (2.53 out of 4), “learning to live with it” (2.53 out of 4), and “trying to come up with a strategy about what to do” (2.53 out of 4).

While the least approach coping mechanism used by emergency department nurses were “praying or meditating.” (2.24 out of 4) and “making fun of the situation” (2.31 out of 4). For more details see table 10.

Table 10: Approach Coping Scale Items Of ED Nurses Participants’ Responses

	<i>I have been doing this a:</i>				
	Ever N (%)	little bite N (%)	Medium N (%)	a lot N (%)	RM
I’ve been concentrating my efforts on doing something about the situation I’m in	21(11.1)	69(36.5)	80(42.3)	19(10.1)	2.51
I’ve been taking action to try to make the situation better.	27(14.3)	60(31.7)	77(40.7)	25(13.2)	2.53
I’ve been getting emotional support from others.	27(14.3)	61(32.3)	80(42.3)	21(11.1)	2.50
I’ve been getting comfort and understanding from someone.	34(18.0)	63(33.3)	77(40.7)	15(7.9)	2.39
I’ve been trying to see it in a different light, to make it seem more positive.	30(15.9)	67(35.4)	71(37.6)	21(11.1)	2.44
good in what is I’ve been looking for something happening.	34(18.0)	51(27.0)	79(41.8)	25(13.2)	2.50
I’ve been getting help and advice from other people.	25(13.2)	74(39.2)	74(39.2)	16(8.5)	2.43
I’ve been trying to get advice or help from other people about what to do.	27(14.3)	69(36.5)	68(36.0)	25(13.2)	2.48

I've been accepting the reality of the fact that it has happened.	29(15.3)	62(32.8)	69(36.5)	29(15.3)	2.52
I've been learning to live with it.	25(13.2)	62(32.8)	78(41.3)	24(12.7)	2.53
I've been trying to come up with a strategy about what to do.	21(11.1)	67(35.4)	80(42.3)	21(11.1)	2.53
I've been thinking hard about what steps to take.	31(16.4)	66(34.9)	64(33.9)	28(14.8)	2.47
I've been trying to find comfort in my religion or spiritual beliefs.	32(16.9)	63(33.3)	60(31.7)	34(18.0)	2.51
I've been praying or meditating.	43(22.8)	71(37.6)	61(32.3)	14(7.4)	2.24
I've been making jokes about it.	41(21.7)	64(33.9)	66(34.9)	18(9.5)	2.32
I've been making fun of the situation.	38(20.1)	68(36.0)	70(37.0)	13(6.9)	2.31

Although emergency department nurses used both strategies of coping (approach & avoiding) but as seen in figure 11 nurses prefer approach coping mechanism slightly more than avoiding. The highest coping mechanisms used by emergency nurses were acceptance (5.05 out of 8), planning (5.01 out of 8), and positive reframing (4.94 out of 8) which related to approach coping mechanisms.

While the least coping mechanisms used by emergency nurses were substance abuse (3.94 out of 8), behavior disengagement (4.42 out of 8), and denial (4.54 out of 8) which related to avoidant coping mechanisms. See figure 11.

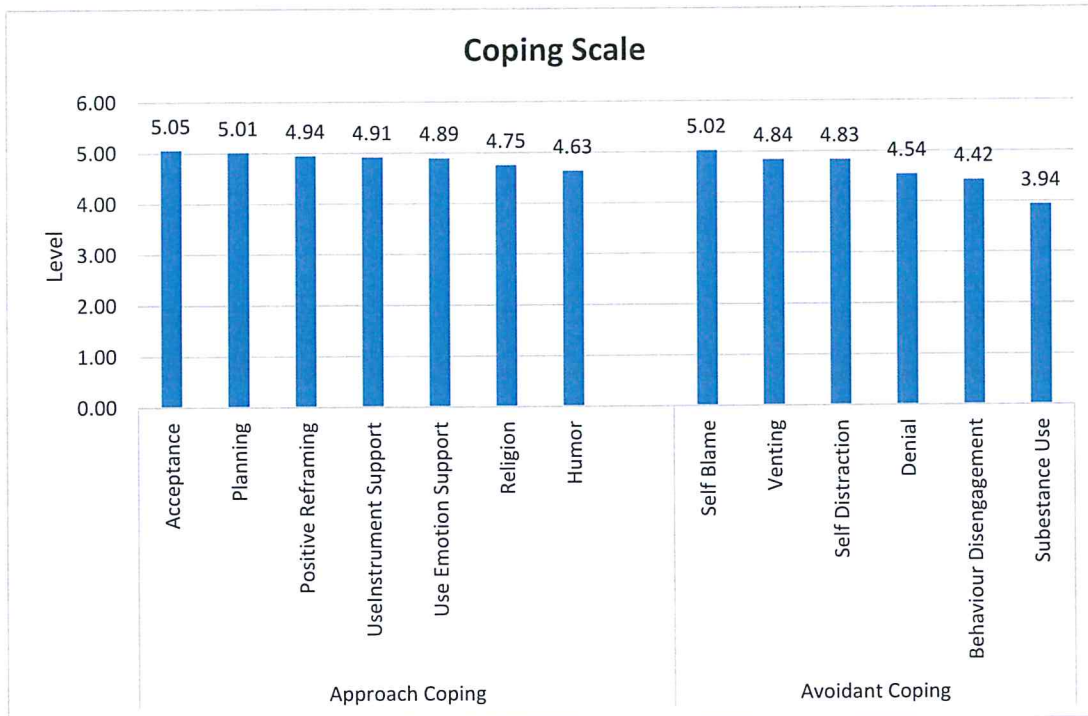


Figure 11: ED Nurses Coping Scale (Avoidant & Approach Mechanism) Levels

4.10 Relation Between Demographic Variables And Secondary Traumatic stress:

As shown in table 11, the analysis of variance showed that there is a statistically significant ($F=4.6$, $p=0.011$) effect of level of education on ED nurses secondary traumatic stress level. Scheffe Post hoc multiple comparisons showed that master level had higher ($m=54.11$) secondary traumatic stress level in comparing with bachelor level secondary traumatic stress ($m=45.5$) and did this significant difference ($p=0.040$) while diploma had no significance with master or bachelor. Also, Analysis of variance showed that there is a statistically significant ($F=3.85$, $p=0.010$) effect of years of experience on ED nurses secondary traumatic stress level. Scheffe Post hoc multiple comparisons showed that nurses with 11-20 years of work experience had higher ($m=52.6$) secondary traumatic stress level in comparing with less than 5 years of experience ($m=45.5$) but no significance between comparisons. On contrary, there are no statistically significant effect of age, gender, marital status,

type of hospital ($p=0.77, 0.35, 0.48, \& 0.21$ respectively) on ED nurses secondary traumatic stress level. Neither “providing CPR for sever shocked patient and then the CPR end of death of patient in the ED” (p value= 0.33) nor “providing a care for a COVID-19 patient in ED” (p value= 0.41) had statistically significant effect on ED nurses secondary traumatic stress level.

Table 11: t Test and ANOVA Test Of The Relation Between Demographic Variables And Secondary Traumatic Stress

Variable	Secondary Traumatic stress					
	Categories	N	Mean	Std. D	t	Sig.
Gender	Male	120	46.84	12.42	-0.94	0.35
	Female	66	48.73	14.30		
Marital status	Married	85	48.26	13.25	0.71	0.48
	Single	101	46.88	13.03		
Type of hospital	Private	72	49.03	12.83	1.26	0.21
	Public	114	46.55	13.25		
Provide CPR for sever shocked patient and then the CPR end of death of patient in the ED?	Yes	158	47.85	13.17	0.98	0.33
	No	27	45.19	12.89		
Provide a care for a COVID-19 patient in ED?	Yes	166	47.79	13.09	0.83	0.41
	No	20	45.20	13.37		
		N	Mean	Std. D	F	Sig.
Age (years)	21-29	116	47.01	13.04	.262	.770
	30-39	58	48.29	12.71		
	40-49	11	49.09	16.96		
	Total	185	47.54	13.13		
Level of education	Diploma	51	50.11	12.17	4.60	.011

	Bachelor	116	45.56	12.68		
	Master	17	54.11	16.06		
	Total	184	47.61	13.13		
Years of experiences	1-5 years	114	45.61	13.22	3.85	.010
	6-10 years	44	51.13	11.85		
	11-20 years	21	52.61	11.43		
	> 20 years	7	40.28	15.72		
	Total	186	47.51	13.11		

Level of significance is 0.05

4.11 Correlations Between PSS, MBIS, JSS, MSPSS, And POS With STSS:

As shown in table 12, Pearson correlation test revealed that Perceived Stress among ED nurses were statistically significant (p value < .001) and high positively correlated ($r= 0.59$) with the nurse's level of secondary trauma stress. Moreover, burnout among ED nurses was statistically significant (p value < .001) and high positively correlated ($r= 0.66$) with the nurse's level of secondary trauma stress. Additionally, perceived organizational support among ED nurses was statistically significant ($p= .024$) and low positively correlated ($r= 0.66$) with the nurse's level of secondary trauma stress. In contrary, both job satisfaction and perceived social support had neither statistical significance (p value= 0.97 & 0.40 respectively) nor correlation ($r= 0.002$ & 0.06 respectively).

Table 12: Correlations Between PSS, MBIS, JSS, MSPSS, And POS With STSS

	Secondary Traumatic stress Scale (STSS)	
	Pearson Correlation	Sig.
Perceived Stress Scale (PSS)	.594**	< .001

The Maslach Burnout Inventory (MBIS)	.660**	< .001
Emotion Exhaustion	.620**	< .001
Depersonalization	.695**	< .001
Personal Accomplish	.353**	< .001
Job Satisfaction Scale (JSS)	.002	.978
Multidimensional Scale of Perceived Social Support (MSPSS)	.061	.406
Perceived organizational support scale (POS)	.164*	.024

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

*

Correlation is significant at the 0.05 level (2-tailed).

4.12 Demographic, Stress And Support Characteristics Of ED Nurse's Effects On STSS:

As shown in table 13, the results of linear regression indicated that the independent variables including demographic and other predictors explained 55% of the variance ($r^2 = 0.55$, $F [DF=15] = 15.8$, $p < 0.001$). It was found that years of experience ($\beta = 3.6$, p value = 0.03), as did PSS ($\beta = 1.31$, p value < 0.001), and as did MBIS ($\beta = 0.399$, p value < 0.001) significantly predicted secondary trauma stress among emergency department nurses. While other included variables were not statistically significant ($p > 0.05$).

Table 13: Linear Regression For Demographic, Stress And Support Characteristics Of ED Nurses' Effect On STSS

	B	t	Sig.	Correlations		95.0% CI for B	
				Zero-order	Partial	Lower Bound	Upper Bound
(Constant)	3.36	.275	.784			-20.79	27.51

Gender	1.11	.725	.469	.065	.056	-1.91	4.14
Age	-2.94	-1.25	.210	.060	-.097	-7.57	1.67
Marital Status	-.545	-.296	.767	-.063	-.023	-4.17	3.08
Level of education	-.113	-.093	.926	-.013	-.007	-2.52	2.29
Years of experiences	3.60	2.19	.030	.109	.167	.355	6.85
Type of hospital	-1.85	-1.31	.192	-.088	-.101	-4.65	.938
Provide CPR for sever shocked patient and then the CPR end of death of patient in the ED?	1.43	.613	.541	-.077	.047	-3.17	6.04
Provide a care for a COVID-19 patient in ED?	-2.62	-1.01	.312	-.064	-.078	-7.74	2.48
PSS	1.31	6.43	.000	.605	.445	.909	1.71
MBIS	.399	6.97	.000	.619	.474	.286	.513
JSS	-.114	-1.27	.205	-.101	-.098	-.292	.063
MSPSS	-.451	-.860	.391	.037	-.066	-1.48	.584
POS	.041	.780	.437	.159	.060	-.063	.146
Avoidant Coping	.273	1.241	.216	.055	.091	-.161	.707
Approach Coping	-.177	-.983	.327	-.002	-.072	-.532	.178
Model Summary:	F= 15.83		R² = .551				
	Sig. <.001		Adjusted R² = .516				

Dependent Variable: STSS

Chapter 5: Discussion

5.1 Introduction.

Health care workers have been complaining from many stressors that can affect their normal lives. This means that nurses who are working in a direct contact with traumatic patients, are in a high risk for developing a secondary traumatic stress disorder. As a result, may affect the nurse's lives physically and mentally (Ogińska-Bulik et al., 2021). Many stressors can affect developing the secondary traumatic stress. For example, a front-line nurse who are working with COVID-19 patients and in a direct contact with infected patients, are at a high risk of developing the secondary traumatic stress (Hu et al., 2020).

In our study the main objectives: -

- 1- Assessing the prevalence of secondary traumatic stress among emergency nurses during the COVID-19 pandemic,
- 2- Determining the predictors of "secondary traumatic stress" among emergency nurse,
- 3- Assessing the consequences of "secondary traumatic stress among" emergency nurses,
- 4- Determining the relationship between nursing personal characteristics and secondary traumatic stress in Palestine under the pandemic.

5.2 Prevalence Of Secondary Traumatic Stress.

The result of the study showed that the prevalence of secondary traumatic stress is high in Palestine, where about 70 % of total participants had got a rate between (34.5 to 60.5 out of 75) with a mean 47 out of 75. That the percentage of secondary traumatic stress is about 60 % of the

total sample stated a high to severe level of secondary traumatic stress. And 29.5% had mild to moderate secondary traumatic stress and about 10.5 % had no secondary traumatic stress. However, in other countries the prevalence of secondary traumatic stress is vary. In Jordan about 52% of nurses complaining from high to sever score of secondary traumatic stress (Ratrouf & Hamdan-Mansour, 2020). 26.8% of total participants in Italy had high to severe degree of secondary traumatic stress (Marzetti et al., 2020). In south Korea about 57.2 % of nurses who are working with traumatic patients had a high degree of stress disorder (Kim & Yeo, 2020). 67.8 % of total nurses in Turkey who are working during a COVID-19 pandemic and in a direct contact with patients, had experienced high to severe degree of secondary traumatic stress (Erkin et al., 2021). And in the United States 30.8% of total nurses had experienced a high to severe degree of secondary traumatic stress (Kellogg et al., 2018). This result of previous reviewed studies showed that the prevalence of secondary traumatic stress is consistent with our result and the result of Jordan and South Koura (Ratrouf & Hamdan-Mansour, 2020), (Kim & Yeo, 2020) While the previous studies reviewed showed that the prevalence of secondary traumatic stress is higher in Turkey than in Palestine during covid-19 pandemic (Erkin et al., 2021). Another literature reviewed showed that prevalence of secondary traumatic stress is lower in United states and Italy than Palestine. (Kellogg et al., 2018), (Marzetti et al., 2020)

The results showed that the most secondary traumatic symptoms in the study are Intrusive and then avoidance and the less secondary traumatic symptoms is arousal. The highest responses were considering the statement “My heart started pounding when I thought about my work with clients” which belongs to the intrusive subscale, then “I felt emotionally numb My heart”, which belongs to the avoidance subscale and then “I expected something bad to happen” which belongs to arousal subscale. In other studies, the symptoms of secondary traumatic stress are varied, for example in

turkey the high symptoms are avoidance and then intrusion and the last symptoms is arousal (Erkin et al., 2021). Another study in Jordan by Hamza Al Ratrouf the most symptoms is Arousal then the second most symptoms is avoidance symptoms and the less symptoms is intrusive (Ratrouf & Hamdan-Mansour, 2020), and in south Korea the most symptoms is hyperarousal then avoidance and then intrusion (Kim & Yeo, 2020). The result showed that COVID-19 pandemic and working with traumatic patient have a high impact on developing secondary traumatic stress. For example, that the nurses who are working with infected patient of traumatic patient have a high risk of developing severe symptoms of secondary traumatic stress.

5.3 Predictors Of Secondary Traumatic Stress.

5.3.1 Perceived Stress: -

The study found that nurses in Palestine who are working in emergency department during a COVID-19 pandemic complained of moderate level of stress. where about 90 % of participant had a moderate level of perceived stress while just 10 % of total participant's had different levels of low and high level of stress. By reviewing a previous study, the result showed that in Italy about 8.9% of total participants had moderate to extremely severe degree of stress while 91.1% of total participant had mild or no stress during their working under COVID-19 pandemic. that is indicates low stress levels (Lenzo et al., 2021). In China from 1200 participants of frontline healthcare workers, less than 60 % of total participants had moderate to severe level of stress while the other participant had mild or no stress that the result showed that healthcare workers in China had low level of stress (Wang et al., 2020). While in India, about 3.7% had high level of stress and 95% of participants had different degree of stress (Wilson et al., 2020). Reviewing of previous studies in Italy, China and India indicate that the incidence of stress is considered low. Whereas the average

score of participants had a mild stress in a previous study. However, in Palestine 90 % had a moderate level of stress between participants in a previous month of work. This indicate that emergency nurses in Palestine had high level of stress than the other countries. (Lenzo et al., 2021), (Wang et al., 2020), (Wilson et al., 2020).

5.3.2 Perceived Social Support.

As shown in the results, the nurses showed a high degree of social support, about 83.6 % of total participant in the study had moderate to high level of social support and about 16.4% had a low level of social support. The social support is divided to three subscales, the significant to others, family support and friend's support. The result of the current study showed that family and friend and significant others level of support were approximately closed to each other's, but the family support had the highest degree of support 4.53 out of 7 compared with ED nurses' friends (4.53 vs. 4.34 out of 7) and significant other (4.53 vs. 4.37 out of 7). By reviewing a previous study about social support among nurses and healthcare workers in Jordan and Turkey, the results showed that healthcare workers had a high degree of perceived social support in Jordan. Significant others considered the most group provide the support while friends and family where the second group provide a support (Alnazly et al., 2021). In Turkey the result showed that the social support was good toward nurses during the COVID-19 pandemic, the result indicated that the friend was the most group provide the support to the nurses then the significant others and family, (Kılınç & Celik, 2020). The previous study showed that nurses had a good social support. That the result in Jordan and Turkey is consistent with this study, but in Palestine the most group provide a support is the family while in Jordan the significant others is the most group and in turkey the friend is the most group provide a support to nurses and healthcare workers (Alnazly et al., 2021), (Kılınç & Celik, 2020).

5.3.3 Perceived Organizational Support.

Organizational support is one of the predictors of secondary traumatic stress, that describes the degree of support which is provided by an organization toward their employee. The nurses in Palestine like any nurses in the world where organizational support can influence their performance. The current study indicates that the nurses' participants in the study had a low level of perceived organizational support, about 27 % of nurse's participants had an organizational support in the average of a total score 31.14 out of 70 and 70 % of participants had a rate between 17 to 35 out of 70. This result indicates that the emergency nurses in Palestine had a low level of organizational support. A previous result studies in Iran, Philippine and Saudi Arabia, results showed that the Iranian nurses showed a low level of perceived organizational support (Robaee et al., 2018). And in Philippine the Filipino nurses had a low perceived organizational support (Labrague et al., 2018). Finally, in Saudi Arabia 71.9% of participants showed a little organizational support provided by the hospitals (Assiri et al., 2020). These results support our results that the nurse's participants had a low level of organizational support.

5.3.4 Coping Mechanism

Coping mechanism is one of the predictors of secondary traumatic stress disorder that is measured by coping scale. The cope scale has two types of coping mechanisms: the first is avoidant coping and the second is approach coping. The result of current study showed that the emergency nurses in Palestine used the two types of coping in their daily work. The most coping mechanism used by the emergency nurses is approach coping rather than avoidant coping. The highest coping mechanisms used by emergency nurses were acceptance (5.05 out of 8), planning (5.01 out of 8), and positive reframing (4.94 out of 8) which related to approach coping mechanisms. While the least coping mechanisms used by emergency nurses were substance abuse (3.94 out of 8), behavior

disengagement (4.42 out of 8), and denial (4.54 out of 8) were related to avoidant coping mechanisms. Reviewing the previous studies that were conducted in Japan, Italy and Saudi Arabia, the results showed in Japan demonstrated that the healthcare provider used at least one of coping mechanisms to tolerate with a stress, in other side 70% of normal mental health healthcare workers used avoidance escape of coping and 72% of severe mental health problem (Tahara et al., 2020).Whereases in Italy the result showed that the avoidance coping is the most coping mechanisms used by healthcare workers toward stressful situations(Babore et al., 2020). However, in Saudi Arabia, the result showed that healthcare workers in Saudi used the both strategies of coping mechanisms, that planning, positive reframing, venting, and emotional support, were the most coping strategies used by healthcare workers (Alnazly et al., 2021). By this revision, the results indicate that emergency nurses in Palestine used the both coping mechanisms in a stress situation to deal with stress. Like most countries, Palestinian emergency nurses used approach coping more than avoidance to deal with situation, whereas in Italy and Japanese healthcare workers used avoidance coping more than approach coping, on other hand, Saudi the healthcare workers used both strategies the same as in the Palestine. (Tahara et al., 2020), (Babore et al., 2020) (Alnazly et al., 2021)

5.4 Consequences Of Secondary Traumatic Stress.

5.4.1 Burnout.

Burnout is one of the consequences of the secondary traumatic stress disorder. The result of the study showed that the participants of nurses who are working in the emergency department in Palestine during the covid-19 pandemic had a severe level of emotional exhaustion with average of 27.5 out of 45, whereby 70% of them were between 20 and 35 out of 45. Then personal

accomplishment was the second burnout subscale. The average was 24.8 out of 40, 70% of whom the personal accomplishment average ranged from 18.5 to 31 out of 40 and the third subscale of burnout is depersonalization the average 13 out of 25, it was approximately 70%, of whom the depersonalization rate ranged from 9 to 17 out of 25. This result indicates that the nurses who are working at the emergency department had a job burnout.

By reviewing the previous results in Nigeria , Indonesia , Italy and United Arab Emarat's, the result showed that in Nigeria the prevalence of burnout among 270 nurses included in the study was about 39 % who had high level of emotional exhaustions and 40 % had high level of personal accomplishment and 29 % had high level of personal depersonalization(Lasebikan & Oyetunde, 2012).However in Indonesia the results showed that nurses had high symptoms of reduced personal accomplishment of about 48.8 % of nurses , and then depersonalization about of 48 % of nurses had high level , and 47% of nurses had a high degree of emotional exhaustions, (Rusca Putra & Setyowati, 2019). In Italy the nurses reported that the emotional exhaustion is the most burnout incidence and has 62% of participant who had moderate to high level of emotional exhaustion. The second most burnout is depersonalization and 54 % of participants had moderate to high level of depersonalization and the lowest burnout is personal accomplishment where about 45% had moderate to high level of reduction of personal accomplishment (Vitale et al., 2020). In United Arab Emarats, the result showed that healthcare provider complained of workplace burnout, results showed that emotional exhaustion is the most type of burnout then came personal accomplishment as the second type and then came depersonalization as the third type of burnout that the healthcare provider complain of it. (Al-Omari et al., 2019) The previous result showed that healthcare workers had a different levels of job burnout. This result indicate that the level of job burnout of a previous study was consistent with the result of our study. But in the United Emarats

the result showed that the types of burnout incidence as the same results of our study which were conducted in Palestine.

5.4.2 Job Satisfaction.

Job satisfaction is one of the consequences of the Secondary Traumatic Stress. The results of current study indicate that about 61.9% of total emergency nurses participant had a low job satisfaction, which 28 % had an average job satisfaction that is not low and not high job satisfaction, as well in additions about 10.1% of total participant had high level of job satisfaction, where the mean score was 27.9 out of 50 and 70% of them showed an average of satisfaction between 19- 36 out of 50. This result indicated that the most of emergency nurses had a low job satisfaction. Increased the percentage of nurses had a low job satisfaction is equal to the percentage of emergency nurses who were suffering from a secondary traumatic stress. Moreover, the result showed that emergency nurses working during covid-19 pandemic had a low job satisfaction and high percentage of secondary traumatic stress.

The previous studies in Iran, Ethiopia and Spain. Showed that In Iran, the results showed that the average of a total participants of nurses were included in the study had medium level of job satisfaction. (Akbari et al., 2020) In Ethiopia the study results showed that about 316 nurses responded to the study, 33.5% had a low job satisfaction, and 34.5% had a moderate job satisfaction and 32% had a high level of job satisfaction (Semachew et al., 2017). While in Spain, the result of the study showed that about 228 nurses participants included in the study , the mean of them had been reported medium to high level of job satisfaction.(Acea-López et al., 2021) this result of previous studies indicates that the nurses and healthcare provider had a medium level of job dissatisfaction while in our study the result indicates that nurses had a high level of job

dissatisfaction , so the nurses in Palestine had a high level of job dissatisfaction than nurses in Iran, Ethiopia and Spain. ,(Akbari et al., 2020) (Semachew et al., 2017) (Acea-López et al., 2021)

5.5 Relation between demographic variables and secondary traumatic stress:

The study results showed that the analysis of variance indicates that there is a statistically significant effect of level of education on emergency nurses and secondary traumatic stress level. Scheffe Post hoc multiple comparisons showed that master degree had higher secondary traumatic stress level compared with bachelor degree secondary traumatic stress, while diploma had no significance differences level with master or bachelor. Also, analysis of variance showed that there is a statistically significant effect of years of experience on ED nurses secondary traumatic stress level. Scheffe Post hoc multiple comparisons showed that nurses with 11-20 years of work experience had higher secondary traumatic stress level in compared with less than 5 years of experience but no significance between comparisons. On other hand there is no statistically significance between the age, gender, marital status and type of hospital on developing the secondary traumatic stress.

To determine the relationship between demographic factors and the secondary traumatic stress, studies from Turkey and India were adapted to make a comparison with their results. The results in Turkey showed that gender had positive statistically significant with compassion fatigue between nurses, in other words, women had high level of compassion fatigue more than men. However, marital status had statistically significant with compassion fatigue. This means that single nurses had higher compassion fatigue than married nurses. In contrast, there is no statistically significant between level of education and compassion fatigue but the nurses who passes a post graduate degree had a higher degree of compassion fatigue. Finally, there is a

statistically significant between age and time of work and degree of compassion fatigue. This means increasing in age and work time will increase the level of compassion fatigue. (Aslan et al., 2021) while in India, the result showed that sociodemographic factors and years of experience had statistically significant with secondary traumatic stress. Increasing the years of experiences will increase the secondary traumatic stress, while other variables like age, gender, marital status, and level of education, have no statistically significance at level with secondary traumatic stress. (H, 2017) In a comparison with a previous result we can consider that in Turkey, the gender, marital status and age have statistically significant with compassion fatigue (secondary traumatic stress) while level of education and years of experience were not significant. It is different from the result of our study that level of education and years of experience were significant, but the age and gender and marital status were not significant with secondary traumatic stress, (Aslan et al., 2021) on the other hand India the years of experiences are significant with level of secondary traumatic stress, but the age, gender, and marital status were not significant. The result in Indian study showed the same result as of our study on emergency nurses in Palestine where age, gender and marital status was not significant but years of experience were significant with secondary traumatic stress. (H, 2017)

5.6: Correlations Between PSS, MBIS, JSS, MSPSS, and POS With STSS And Demographic, Stress And Support Characteristics Of Emergency Nurse's Effects On STSS.

In the correlation between perceived social support, job satisfaction and burnout and organizational support with secondary traumatic stress among emergency nurses in Palestine, the results showed that perceived Stress among emergency nurses was statistically significant and high positively

correlated with the nurse's level of secondary trauma stress. Moreover, burnout among emergency nurses was statistically significant and high positively correlated with the nurse's level of secondary trauma stress. Additionally, perceived organizational support among ED nurses was statistically significant and low positively correlated with the nurse's level of secondary trauma stress. On contrary, both job satisfaction and perceived social support had neither statistical significance) nor correlation. The results of linear regression indicated that the independent variables including demographic and other predictors demonstrated 55% of the variance. It was found that years of experiences as did Perceived stress scale and as did Meshach burnout inventory scale significantly predicted secondary trauma stress among emergency department nurses. While other included variables were not statistically significant.

To determine the predictors and consequence of secondary traumatic stress among previous similar studies, study adapted from Jordan and Italy, and the results showed in Jordan that coping mechanism and empathy are only correlated significantly with secondary traumatic stress. Emergency nurses who had a high level of coping may have a high level of secondary traumatic stress, while the results in Palestine demonstrated that coping not significant with secondary traumatic stress, this means that coping not a predictor of secondary traumatic stress, but perceived stress, burnout and years of experiences can predict the prevalence of secondary traumatic stress among emergency nurses in Palestine. (Ratrouf & Hamdan-Mansour, 2020) While in Italy the result showed that perceived stress, female gender and burnout were correlated and significant with secondary traumatic stress.(Marzetti et al., 2020) The results in Palestine among emergency nurses that perceived stress were correlated and significant with secondary traumatic stress, burnout was correlated and significant with secondary traumatic stress, but job satisfaction and social support were not significant and correlated with secondary traumatic stress. Moreover, the

results showed that only years of experiences, perceived stress and burnout were only significant with secondary traumatic stress and could be considered as a predictor of secondary traumatic stress among emergency nurses in Palestine among COVID-19 pandemic.

5.6 Conclusion.

- 1- The prevalence of secondary traumatic stress in Palestine is high. 60 % of emergency nurses in Palestine had a moderate to high degree of secondary traumatic stress. This percentage is considered similar to other percentages of secondary traumatic stress in other countries among nurses and frontline healthcare workers that are complaining of high degree of secondary traumatic stress.
- 2- 90 % of Emergency nurses in the study has a moderate level of perceived stress. It is considered very high degree of stress when compared with other countries where the level of stress is low.
- 3- The nurses showed a high degree of social support, that is about 83.6 % of a total participant in the study had moderate to high level of social support and about 16.4% had a low level of social support, this level of social support in consider high.
- 4- The emergency nurses' participants in the study had a low level of perceived organizational support, which is 27 % of nurse's participant who had an organizational support. The result indicates that the emergency nurses in Palestine had a low level of organizational support.
- 5- The most coping mechanism used by the emergency nurses is approach coping rather than avoidant coping. The highest coping mechanisms used by emergency nurses was acceptance (5.05 out of 8), planning (5.01 out of 8), and positive reframing (4.94 out of 8) which related to approach coping mechanisms.

- 6- Emergency nurse's participants in Palestine has a deafferented level of burnout, this is mean that emergency nurses had a high level of emotional exhaustion and personal accomplishment and high level of depersonalization but less than other studies.
- 7- 61.9% of total emergency nurses participants had a low job satisfaction, 28 % had an average job satisfaction that is not low and not high job satisfaction, and 10.1% of total participants who have high level of job satisfaction.
- 8- Level of education and years of experiences among participants in the study are significant with secondary traumatic stress.
- 9- Perceived stress, burnout, and organizational support are correlated and significant with secondary traumatic stress.
- 10- Only yeas of experiences, perceived stress and burnout are the predictors of secondary traumatic stress and significantly correlated with secondary traumatic stress.

Chapter Six: Conclusion, Recommendations, Limitation And Budget

6.1 Conclusion.

Based on finding, nurses in emergency department in Palestine has a high degree of secondary traumatic stress disorder, about 61 % of total participants has a high to sever level of secondary traumatic stress, the secondary traumatic stress affects the emergency nurses normal lives that the emergency nurses had a high degree of job burnout , that emergency nurses had a high level of emotional exhaustion , and a high level of personal accomplishment , a medium level of depersonalization of burnout , emergency nurses had a high level of job dissatisfaction about 75% had a low level of job dissatisfaction , emergency nurses in Palestine had a high level of social support and a low level of organizational support and emergency nurses in Palestine used a different coping mechanisms in their work that the nurses used the two coping mechanisms (avoidant and approached), based on finding, only the years of experiences and level of education are significant demographic predictors to secondary traumatic stress and organizational support are significant with secondary traumatic stress , burnout is significant with secondary traumatic stress toward emergency nurses in Palestine, finally the high level of secondary traumatic stress among emergency nurses in Palestine affect the normal lives by increased the job burnout and the job dissatisfaction.

6.2 Recommendations Of This Study

According to the finding of the study of a high level of secondary traumatic stress among emergency nurses in Palestine, this level of secondary traumatic stress is high and may lead to a serious problem if they delayed to management, so the recommendations is

1-To establish a special training program can be used by organization about training of trauma and who to deal with trauma.

2- Establish a polices that can conduct in the hospitals that force the hospitals to make a scheduled monthly evaluation of secondary traumatic stress disorder among emergency nurses to rapid assessment and managing of their consequences especially among nurses who is working with traumatic patients and seeing a death in a daily work.

3- Appointing a community supervisor specialized in psychological care, whose goal is to hold periodic meetings with nurses and health workers in order to assess the nurses' mental health and help alleviate psychological crises, in order to prevent the development of secondary trauma.

6.2.1 Recommendation For Future Researches:

My recommendation to a future researches to investigate the relationship between number of nigh shift per month on developing the secondary traumatic stress and its severity , the second is research about the relationship between a workplace violence in emergency department and the probability of developing a secondary traumatic stress, and the third recommendation in a future is to research about the relationship between high fidelity simulation lab about a trauma in decreasing the level of trauma and how to deal with a traumatic events in a real work place.

6.3 Budget

The research budget was formatted as a list or a table of equipment / consumables:

Table 6.3.1 The Research Budget.

Total cost for study			
Expense description	Number of units	Cost of each unit	Total cost
Transportation	40 visits	50 ILS	2000ILS
Data analysis/Software	260 Questionnaire	10 ILS	2600 ILS
Miscellaneous			1000 ILS
Total			ILS5600

6.4 Limitation Of The Study

The limitation of this study was the limited information, insufficient and inappropriate data registry related to insufficient time and workload toward participants, Limited resources like literature, and guidelines/protocols, the lack of funds spent on scientific research, and Transportation. Finally, Corona pandemic and the difficulty of meeting nursing in hospitals.

References:

- Abdo, S. A., El-Sallamy, R. M., El-Sherbiny, A. A., & Kabbash, I. A. (2016). Burnout among physicians and nursing staff working in the emergency hospital of Tanta University, Egypt. *East Mediterr Health J*, 21(12), 906-915. <https://doi.org/10.26719/2015.21.12.906>
- Acea-López, L., Pastor-Bravo, M. D. M., Rubinat-Arnaldo, E., Bellon, F., Blanco-Blanco, J., Gea-Sanchez, M., & Briones-Vozmediano, E. (2021). Burnout and job satisfaction among nurses in three Spanish regions. *J Nurs Manag*. <https://doi.org/10.1111/jonm.13376>
- Adams, R. E., Boscarino, J. A., & Figley, C. R. (2006). Compassion fatigue and psychological distress among social workers: a validation study. *Am J Orthopsychiatry*, 76(1), 103-108. <https://doi.org/10.1037/0002-9432.76.1.103>
- Akbari, M., Bagheri, A., Fathollahi, A., & Darvish, M. (2020). Job satisfaction among nurses in Iran: does gender matter? *Journal of multidisciplinary healthcare*, 13, 71-78. <https://doi.org/10.2147/JMDH.S215288>
- Al-Omari, A., Al-Mutair, A., Shamsan, A., & Mutairi, A. (2019). Predicting Burnout Factors among Healthcare Providers at Private Hospitals in Saudi Arabia and United Arab Emirates: A Cross-Sectional Study. *Applied Sciences*, 10, 157. <https://doi.org/10.3390/app10010157>
- Alnazly, E., Khraisat, O. M., Al-Bashaireh, A. M., & Bryant, C. L. (2021). Anxiety, depression, stress, fear and social support during COVID-19 pandemic among Jordanian healthcare workers. *PLoS One*, 16(3), e0247679. <https://doi.org/10.1371/journal.pone.0247679>
- Arpacioglu, S., Gurler, M., & Cakiroglu, S. (2020). Secondary Traumatization Outcomes and Associated Factors Among the Health Care Workers Exposed to the COVID-19. *The International journal of social psychiatry*, 20764020940742-20764020940742. <https://doi.org/10.1177/0020764020940742>
- Aslan, H., Erci, B., & Pekince, H. (2021). Relationship Between Compassion Fatigue in Nurses, and Work-Related Stress and the Meaning of Life. *J Relig Health*, 1-13. <https://doi.org/10.1007/s10943-020-01142-0>
- Assiri, S., Shehata, S., & Assiri, M. (2020). Relationship of Job Satisfaction with Perceived Organizational Support and Quality of Care among Saudi Nurses. *Health*, 12, 828-839. <https://doi.org/10.4236/health.2020.127060>
- Babore, A., Lombardi, L., Viceconti, M. L., Pignataro, S., Marino, V., Crudele, M., . . . Trumello, C. (2020). Psychological effects of the COVID-2019 pandemic: Perceived stress and coping strategies among healthcare professionals. *Psychiatry Res*, 293, 113366. <https://doi.org/10.1016/j.psychres.2020.113366>
- Berjot, S., & Gillet, N. (2011). Stress and Coping with Discrimination and Stigmatization. *Frontiers in psychology*, 2, 33. <https://doi.org/10.3389/fpsyg.2011.00033>
- Bock, C., Heitland, I., Zimmermann, T., Winter, L., & Kahl, K. G. (2020). Secondary Traumatic Stress, Mental State, and Work Ability in Nurses-Results of a Psychological Risk Assessment at a University Hospital. *Front Psychiatry*, 11, 298. <https://doi.org/10.3389/fpsyg.2020.00298>
- Dominguez-Gomez, E., & Rutledge, D. N. (2009). Prevalence of secondary traumatic stress among emergency nurses. *J Emerg Nurs*, 35(3), 199-204; quiz 273-194. <https://doi.org/10.1016/j.jen.2008.05.003>
- Duffy, E., Avalos, G., & Dowling, M. (2014). Secondary traumatic stress among emergency nurses: A cross-sectional study. *International emergency nursing*, 23. <https://doi.org/10.1016/j.ienj.2014.05.001>
- Erkin, Ö., Konakçı, G., & Duran, S. (2021). Secondary traumatic stress in nurses working with patients with suspected/confirmed COVID-19 in Turkey. *Perspect Psychiatr Care*. <https://doi.org/10.1111/ppc.12733>
- Figley, C. (1995). Compassion fatigue as secondary traumatic stress disorder: An overview. *Compassion Fatigue*, 1.

- H, R. (2017). SECONDARY TRAUMATIC STRESS AMONG NURSES IN A TERTIARY CARE HOSPITAL. *Indian Journal of Applied Research*, 7, 59-60.
- Hensel, J. M., Ruiz, C., Finney, C., & Dewa, C. S. (2015). Meta-analysis of risk factors for secondary traumatic stress in therapeutic work with trauma victims. *J Trauma Stress*, 28(2), 83-91. <https://doi.org/10.1002/jts.21998>
- Hu, D., Kong, Y., Li, W., Han, Q., Zhang, X., Zhu, L., . . . Zhu, J. (2020a). Frontline nurses' burnout, anxiety, depression, and fear statuses and their associated factors during the COVID-19 outbreak in Wuhan, China: A large-scale cross-sectional study. *EClinicalMedicine*, 24, 100424. <https://doi.org/10.1016/j.eclinm.2020.100424>
- Hu, D., Kong, Y., Li, W., Han, Q., Zhang, X., Zhu, L. X., . . . Zhu, J. (2020b). Frontline nurses' burnout, anxiety, depression, and fear statuses and their associated factors during the COVID-19 outbreak in Wuhan, China: A large-scale cross-sectional study. *EClinicalMedicine*, 24, 100424. <https://doi.org/https://doi.org/10.1016/j.eclinm.2020.100424>
- Kellogg, M. B., Knight, M., Dowling, J. S., & Crawford, S. L. (2018). Secondary Traumatic Stress in Pediatric Nurses. *J Pediatr Nurs*, 43, 97-103. <https://doi.org/10.1016/j.pedn.2018.08.016>
- Kılınc, T., & Celik, A. (2020). Relationship between the social support and psychological resilience levels perceived by nurses during the COVID-19 pandemic: A study from Turkey. *Perspectives in Psychiatric Care*, 57. <https://doi.org/10.1111/ppc.12648>
- Kim, S. J., & Yeo, J. H. (2020). Factors Affecting Posttraumatic Stress Disorder in South Korean Trauma Nurses. *Journal of trauma nursing : the official journal of the Society of Trauma Nurses*, 27(1), 50-57. <https://doi.org/10.1097/jtn.0000000000000482>
- Kurtessis, J., Eisenberger, R., Ford, M., Buffardi, L., Stewart, K., & Adis, C. (2015). Perceived Organizational Support: A Meta-Analytic Evaluation of Organizational Support Theory. *Journal of Management*, 43. <https://doi.org/10.1177/0149206315575554>
- Labrague, L. J., McEnroe Petite, D. M., Leocadio, M. C., Van Bogaert, P., & Tsaras, K. (2018). Perceptions of organizational support and its impact on nurses' job outcomes. *Nursing forum*. <https://doi.org/10.1111/nuf.12260>
- Lasebikan, V. O., & Oyetunde, M. O. (2012). Burnout among Nurses in a Nigerian General Hospital: Prevalence and Associated Factors. *ISRN Nurs*, 2012, 402157. <https://doi.org/10.5402/2012/402157>
- Lenzo, V., Quattropiani, M. C., Sardella, A., Martino, G., & Bonanno, G. A. (2021). Depression, Anxiety, and Stress Among Healthcare Workers During the COVID-19 Outbreak and Relationships With Expressive Flexibility and Context Sensitivity. *Front Psychol*, 12, 623033. <https://doi.org/10.3389/fpsyg.2021.623033>
- Machado, M. (2018). *Secondary Traumatic Stress Among Emergency Department Nurses*. <https://doi.org/10.28971/532018MM74>
- Maraqa, B., Nazzal, Z., & Zink, T. (2020). Palestinian Health Care Workers' Stress and Stressors During COVID-19 Pandemic: A Cross-Sectional Study. *J Prim Care Community Health*, 11, 2150132720955026. <https://doi.org/10.1177/2150132720955026>
- Marie, M., SaadAdeen, S., & Battat, M. (2020). Anxiety disorders and PTSD in Palestine: a literature review. *BMC Psychiatry*, 20(1), 509. <https://doi.org/10.1186/s12888-020-02911-7>
- Martínez-López, J., Lázaro-Pérez, C., Gómez-Galán, J., & Fernández-Martínez, M. D. M. (2020). Psychological Impact of COVID-19 Emergency on Health Professionals: Burnout Incidence at the Most Critical Period in Spain. *J Clin Med*, 9(9). <https://doi.org/10.3390/jcm9093029>
- Marzetti, F., Vaghegini, G., Conversano, C., Miccoli, M., Gemignani, A., Ciacchini, R., . . . Orrù, G. (2020). *Secondary traumatic stress and burnout in healthcare workers during COVID-19 outbreak*. <https://doi.org/10.1101/2020.09.13.20186692>
- Matter, N., Aziz, A., & Thabet, M. (2017). The Relationship between War Trauma, Secondary Traumatic Stress, and Anxiety Among Health Professionals Working at Emergency Departments in Gaza-Strip. *Journal of Nursing and Health Studies*, 01. <https://doi.org/10.21767/2574-2825.100007>

- Morrison, L. E., & Joy, J. P. (2016). Secondary traumatic stress in the emergency department. *J Adv Nurs*, 72(11), 2894-2906. <https://doi.org/10.1111/jan.13030>
- Ogińska-Bulik, N., Gurowiec, P. J., Michalska, P., & Kędra, E. (2021). Prevalence and predictors of secondary traumatic stress symptoms in health care professionals working with trauma victims: A cross-sectional study. *PLoS one*, 16(2), e0247596-e0247596. <https://doi.org/10.1371/journal.pone.0247596>
- Ozbay, F., Johnson, D., Dimoulas, E., Morgan, C., Charney, D., & Southwick, S. (2007). Social support and resilience to stress: From neurobiology to clinical practice. *Psychiatry (Edgmont (Pa. : Township))*, 4, 35-40.
- Ozbay, F., Johnson, D. C., Dimoulas, E., Morgan, C. A., Charney, D., & Southwick, S. (2007). Social support and resilience to stress: from neurobiology to clinical practice. *Psychiatry (Edgmont)*, 4(5), 35-40.
- Poli, A., Gemignani, A., & Conversano, C. (2020). The psychological impact of SARS-CoV-2 quarantine: observations through the lens of the polyvagal theory. *Clinical Neuropsychiatry*, 17, 112-114. <https://doi.org/10.36131/CN20200216>
- Ratrout, H., & Hamdan- Mansour, A. (2017). Factors Associated with Secondary Traumatic Stress among Emergency Nurses: An Integrative Review. *Open Journal of Nursing*, 07, 1209-1226. <https://doi.org/10.4236/ojn.2017.711088>
- Ratrout, H. F., & Hamdan-Mansour, A. M. (2020). Secondary traumatic stress among emergency nurses: Prevalence, predictors, and consequences. *Int J Nurs Pract*, 26(1), e12767. <https://doi.org/10.1111/ijn.12767>
- Robaee, N., Atashzadeh-Shoorideh, F., Ashktorab, T., Baghestani, A., & Barkhordari-Sharifabad, M. (2018). Perceived organizational support and moral distress among nurses. *BMC Nurs*, 17, 2. <https://doi.org/10.1186/s12912-017-0270-y>
- Rusca Putra, K., & Setyowati. (2019). Prevalence of burnout syndrome among nurses in general hospitals in provincial East Java: Cross-sectional study. *Enferm Clin*, 29 Suppl 2, 362-366. <https://doi.org/10.1016/j.enfcli.2019.04.045>
- Semachew, A., Belachew, T., Tesfaye, T., & Adinew, Y. M. (2017). Predictors of job satisfaction among nurses working in Ethiopian public hospitals, 2014: institution-based cross-sectional study. *Hum Resour Health*, 15(1), 31. <https://doi.org/10.1186/s12960-017-0204-5>
- Tahara, M., Mashizume, Y., & Takahashi, K. (2020). Coping Mechanisms: Exploring Strategies Utilized by Japanese Healthcare Workers to Reduce Stress and Improve Mental Health during the COVID-19 Pandemic. *Int J Environ Res Public Health*, 18(1). <https://doi.org/10.3390/ijerph18010131>
- Vagni, M., Maiorano, T., Giostra, V., & Pajardi, D. (2020). Coping With COVID-19: Emergency Stress, Secondary Trauma and Self-Efficacy in Healthcare and Emergency Workers in Italy. *Frontiers in psychology*, 11, 566912-566912. <https://doi.org/10.3389/fpsyg.2020.566912>
- Vitale, E., Cesano, E., & Germini, F. (2020). Prevalence of Burnout among Italian Nurses: a descriptive study. *Acta bio-medica : Atenei Parmensis*, 91(4), e2020117-e2020117. <https://doi.org/10.23750/abm.v91i4.9008>
- Wang, H., Liu, Y., Hu, K., Zhang, M., Du, M., Huang, H., & Yue, X. (2020). Healthcare workers' stress when caring for COVID-19 patients: An altruistic perspective. *Nurs Ethics*, 27(7), 1490-1500. <https://doi.org/10.1177/0969733020934146>
- Wilson, W., Raj, J. P., Rao, S., Ghiya, M., Nedungalaparambil, N. M., Mundra, H., & Mathew, R. (2020). Prevalence and Predictors of Stress, anxiety, and Depression among Healthcare Workers Managing COVID-19 Pandemic in India: A Nationwide Observational Study. *Indian J Psychol Med*, 42(4), 353-358. <https://doi.org/10.1177/0253717620933992>
- Lazarus, R. S. (1984). On the primacy of cognition. *American Psychologist*, 39(2), 124-129. <https://doi.org/10.1037/0003-066X.39.2.124>



Essentials of Person-environment-correspondence Counseling

Lloyd H. Lofquist, Dawe's

Iwanicki, E. F., & Schwab, R. L. (1981). A Cross Validation Study of the Maslach Burnout Inventory. *Educational and Psychological Measurement*, 41(4), 1167–1174. <https://doi.org/10.1177/001316448104100425>

Eisenberger, R., Rockstuhl, T., Shoss, M. K., Wen, X., & Dulebohn, J. (2019). Is the employee–organization relationship dying or thriving? A temporal meta-analysis. *Journal of Applied Psychology*, 104(8), 1036–1057. <https://doi.org/10.1037/apl0000390>

Eric A. Prather, PhD, Denise Janicki-Deverts, PhD, Martica H. Hall, PhD, Sheldon Cohen, PhD, Behaviorally Assessed Sleep and Susceptibility to the Common Cold, *Sleep*, Volume 38, Issue 9, September 2015, Pages 1353–1359, <https://doi.org/10.5665/sleep.4968>

an, C. J., & Moos, R. H. (1987). Personal and contextual determinants of coping strategies. *Journal of Personality and Social Psychology*, 52(5), 946–955. <https://doi.org/10.1037/0022-3514.52.5.946>

Jalowiec, A., Murphy, S. P., & Powers, M. J. (1984). Psychometric assessment of the Jalowiec Coping Scale. *Nursing Research*, 33(3), 157–161. <https://doi.org/10.1097/00006199-198405000-00008>
 Zimet, Gregory & Powell, Suzanne & Farley, Gordon & Werkman, Sidney & Berkoff, Karen. (1990). Zimet GD, Powell SS, Farley GK, Werkman S, Berkoff KAPsychometric characteristics of the Multidimensional Scale of Perceived Social Support. *J Pers Assess* 55: 610-617. *Journal of personality assessment*. 55. 610-7. [10.1080/00223891.1990.9674095](https://doi.org/10.1080/00223891.1990.9674095).

Macdonald, S., & MacIntyre, P. (1997). The generic job satisfaction scale: Scale development and its correlates. *Employee Assistance Quarterly*, 13(2), 1–16. https://doi.org/10.1300/J022v13n02_01

Appendix:

QUESTIONNAIRE

ARAB AMERICAN UNIVERSITY

FACULTY OF GRADUATES STUDIES



RESEARCH STUDY: Exploring the prevalence and predictors of secondary traumatic stress among emergency nurses in Palestine during the COVID-19 pandemic .

Dear Participant

This questionnaire will be used for exploring the Prevalence and predictors of secondary traumatic stress among emergency nurses in Palestine during COVID-19 pandemic .

All information will be treated as confidential and the researcher undertakes not to reveal any individual information that appears in this questionnaire.

You will require approximately () minutes completing this questionnaire.

Section 1: Demographics: -**1. Gender:**

1.1. Male:	
1.2. Female:	

2. Age:

2.1. 21-29:	
2.2. 30-39:	
2.3. 40-49:	
2.4. >50:	

3. Marital status

3.1. Single	
3.2. Married	
3.3. Other:	

4. Level of education

4.1 Diploma	
4.2 Bachelor	
4.3 Master	
4.4 Other:	

5. years of experiences

5.1. 1-5 years	
5.2 5-10 years	
2.3 10-20 years	
5.4 more than 20 years	

6. Type of hospital

6.1 Private	
6.2 Public	

7. Did you provide a cardiopulmonary resuscitation for a sever shocked patient and then the CPR end of death of patient in the emergency department?

8. Did you provide a care for a COVID-19 patient in emergency department? (Yes /No)

Section 2: Variables: -**2.1 Secondary Traumatic stress Scale.**

The following is a list of statements made by persons who have been impacted by their work with traumatized clients. Read each statement then indicate how frequently the statement was true for you in the past **seven (7) days** by circling the corresponding number next to the statement.

NOTE: "Client" is used to indicate persons with whom you have been engaged in a helping relationship. You may substitute another noun that better represents your work such as consumer, patient, recipient, etc.

	Statement	Never	Rarely	occasionally	often	Very often
1	I felt emotionally numb	1	2	3	4	5
2	My heart started pounding when I thought about my work with clients	1	2	3	4	5
3	It seemed as if I was reliving the trauma(s) experienced by my client(s)	1	2	3	4	5

4	I had trouble sleeping	1	2	3	4	5
5	I felt discouraged about the future	1	2	3	4	5
6	Reminders of my work with clients upset me	1	2	3	4	5
7	I had little interest in being around others	1	2	3	4	5
8	I felt jumpy	1	2	3	4	5
9	I was less active than usual	1	2	3	4	5
10	I thought about my work with clients when I didn't intend to	1	2	3	4	5
11	I had trouble concentrating	1	2	3	4	5
12	I avoided people, places, or things that reminded me of my work with clients	1	2	3	4	5
13	I had disturbing dreams about my work with clients	1	2	3	4	5
14	I wanted to avoid working with some clients	1	2	3	4	5
15	I was easily annoyed	1	2	3	4	5
16	I expected something bad to happen	1	2	3	4	5
17	I noticed gaps in my memory about client sessions	1	2	3	4	5

2.2 Perceived Stress Scale:-

The questions in this scale ask about your feelings and thoughts during the last month. In each case, you will be asked to indicate how often you felt or thought a certain way. Although some of the questions are similar, there are differences between them and you should treat each one as a separate question..

For each question choose from the following alternatives:

0 - never 1 - almost never 2 - sometimes 3 - fairly often 4 - very often

		Never	Almost never	Sometimes	Fairly often	Very often
1	In the last month, how often have you been upset because of something that happened unexpectedly?	0	1	2	3	4
2	In the last month, how often have you felt that you were unable to control the important things in your life?	0		2	3	4
3	In the last month, how often have you felt nervous and stressed?	0	1	2	3	4
4	In the last month, how often have you felt confident about your ability to handle your personal problems?	0	1	2	3	4

5	In the last month, how often have you felt that things were going your way?	0	1	2	3	4
6	In the last month, how often have you found that you could not cope with all the things that you had to do?	0	1	2	3	4
7	In the last month, how often have you been able to control irritations in your life?	0	1	2	3	4
8	In the last month, how often have you felt that you were on top of things?	0	1	2	3	4
9	In the last month, how often have you been angered because of things that happened that were outside of your control?	0	1	2	3	4
10	In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?	0	1	2	3	4

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2.3 The Maslach Burnout Inventory (MBI) :- was designed to assess the frequency and intensity of perceived burnout among persons in the helping professions in general.

carefully. Indicate how you feel about each statement.

	Statement	Never	Rarely	occasionally	often	Very often
1	I feel emotionally drained from my work	1	2	3	4	5
2	I feel used up at the end of the workday.	1	2	3	4	5
3	I feel fatigued when I get up in the morning and have to face another day on the job	1	2	3	4	5
4	I can easily understand how my recipients feel about things.	1	2	3	4	5
5	I feel I treat some recipients as if they were impersonal "objects."	1	2	3	4	5
6	Working with people all day is really a strain for me	1	2	3	4	5
7	I deal very effectively with the problems of my recipients.	1	2	3	4	5
8	I feel burned out from my work.	1	2	3	4	5
9	I feel I'm positively influencing other people's lives through my work	1	2	3	4	5
10	I've become more callous toward people since I took this job	1	2	3	4	5
11	I worry that this job is hardening me emotionally.	1	2	3	4	5
12	I feel very energetic.	1	2	3	4	5
13	I feel frustrated by my job.	1	2	3	4	5
14	I feel I'm working too hard on my job.	1	2	3	4	5
15	I don't really care what happens to some recipients.	1	2	3	4	5
16	Working directly with people puts too much stress on me.	1	2	3	4	5

17	I can easily create a relaxed atmosphere with my recipients.	1	2	3	4	5
18	I feel exhilarated after working closely with my recipients.	1	2	3	4	5
19	I have accomplished many worthwhile things in this job.	1	2	3	4	5
20	I feel like I'm at the end of my rope.	1	2	3	4	5
21	In my work, I deal with emotional problems very calmly.	1	2	3	4	5
22	I feel recipients blame me for some of their problems	1	2	3	4	5

2.4 Multidimensional Scale of Perceived Social Support :-

Instructions: We are interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.

Circle the "1" if you **Very Strongly Disagree**

Circle the "2" if you **Strongly Disagree**

Circle the "3" if you **Mildly Disagree**

Circle the "4" if you are **Neutral**

Circle the "5" if you **Mildly Agree**

Circle the "6" if you **Strongly Agree**

Circle the "7" if you **Very Strongly Agree**

		Very strong disagree	Strong disagree	Mildly disagree	Neutral	Mildly agree	Strong agree	Very strong agree
1	There is a special person who is around when I am in need	1	2	3	4	5	6	7
2	There is a special person with whom I can share joys and sorrows.	1	2	3	4	5	6	7
3	My family really tries to help me.	1	2	3	4	5	6	7
4	I get the emotional help & support I need from my family.	1	2	3	4	5	6	7
5	I have a special person who is a real source of comfort to me.	1	2	3	4	5	6	7
6	My friends really try to help me	1	2	3	4	5	6	7
7	I can count on my friends when things go wrong.	1	2	3	4	5	6	7
8	I can talk about my problems with my family.	1	2	3	4	5	6	7

9	I have friends with whom I can share my joys and sorrows.	1	2	3	4	5	6	7
10	There is a special person in my life who cares about my feelings.	1	2	3	4	5	6	7
11	My family is willing to help me make decisions.	1	2	3	4	5	6	7
12	I can talk about my problems with my friends.	1	2	3	4	5	6	7

2.5 Coping scale:-

The following statement that use do describe who you interact in your job to measure the coping in your job .

Instructions: We are interested in how you feel about the following statements. Read each statement.

The responses are coded in the following manner across all statements:

1= I haven't been doing this at all

2= I've been doing this a little bit

3= I've been doing this a medium amount

4= I've been doing this a lot

		I haven't been doing this at all	I have been doing this a little bite	I have been doing a medium amount	I have been doing this a lot
1	I've been turning to work or other activities to take my mind off things	1	2	3	4
2	I've been concentrating my efforts on doing something about the situation I'm in	1	2	3	4
3	I've been saying to myself "this isn't real".	1	2	3	4
4	I've been using alcohol or other drugs to myself feel better.	1	2	3	4
5	I've been getting emotional support from others.	1	2	3	4
6	I've been giving up trying to deal with it.		2	3	4

7	I've been taking action to try to make the situation better.	1	2	3	4
8	I've been refusing to believe that it has happened.	1	2	3	4
9	I've been saying things to let my unpleasant feeling escape.	1	2	3	4
10	I've been getting help and advice from other people.	1	2	3	4
11	I've been using alcohol or other drugs to help me get through it	1	2	3	4
12	I've been trying to see it in a different light, to make it seem more positive.	1	2	3	4
13	I've been criticizing myself.	1	2	3	4
14	I've been trying to come up with a strategy about what to do.	1	2	3	4
15	I've been getting comfort and understanding from someone.	1	2	3	4
16	I've been giving up the attempt to cope.	1	2	3	4
17	I've been looking for something good in what is happening.	1	2	3	4
18	I've been making jokes about it.	1	2	3	4
19	I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.	1	2	3	4
20	I've been accepting the reality of the fact that it has happened.	1	2	3	4
21	I've been expressing my negative feelings.	1	2	3	4
22	I've been trying to find comfort in my religion or spiritual beliefs.	1	2	3	4

23	. I've been trying to get advice or help from other people about what to do.	1	2	3	4
24	I've been learning to live with it.	1	2	3	4
25	I've been thinking hard about what steps to take. 26. I've been blaming myself for things that happened.	1	2	3	4
27	27. I've been praying or meditating.	1	2	3	4
28	. I've been making fun of the situation.	1	2	3	4

2.7 Job Satisfaction Scale

For each statement, please circle the number that indicate your degree of agreement.

		Strongly disagree	disagree	Don' t agree	Agree	Strongly agree
1	I receive recognition tor a job well done	1	2	3	4	5
2	I feel close to the people at work	1	2	3	4	5
3	I feel good about working at this company	1	2	3	4	5
4	I feel secure about my job	1	2	3	4	5
5	I believe management is concerned about me	1	2	3	4	5
6	On he whole, I believe work is good or my physical health	1	2	3	4	5
7	My wages are good	1	2	3	4	5
8	All of my talents and skills are used at work	1	2	3	4	5
9	I get along with my supervisor	1	2	3	4	5

10	I feel good about my job	1	2	3	4	5
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2.8 Perceived organizational support scale :-

Listed below statements that may represent possible opinions that you may have about your work , please indicate the degree of your agreement or disagreement of each statement by filling on the circle on your answer sheet that best represents your opinion of view about your work .

		Strongly disagree	Moderately disagree	Slightly disagree	Neither agree or disagree	Slightly agree	Moderately agree	Strangle agree
1	The organization values my contribution to its well-being	1	2	3	4	5	6	7
2	The organization strongly considers my goals and values.	1	2	3	4	5	6	7
3	Help is available from the organization when I have a problem.	1	2	3	4	5	6	7
4	The organization really cares about my well-being.	1	2	3	4	5	6	7
5	My organization wishes to give me the best possible job for which I am qualified.	1	2	3	4	5	6	7
6	The organization cares about my general satisfaction at work	1	2	3	4	5	6	7
7	The organization takes pride in my accomplishments at work.	1	2	3	4	5	6	7
8	The organization would forgive an honest mistake on my part.	1	2	3	4	5	6	7
9	The organization is willing to extend itself in order to help me	1	2	3	4	5	6	7

	perform my job to the best of my ability.							
10	The organization cares about my opinions.	1	2	3	4	5	6	7

THANK YOU FOR YOUR PARTICIPATION!!

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State of Palestine
Ministry of Health - Nablus
General Directorate of Education in Health



دولة فلسطين
وزارة الصحة - نابلس
الإدارة العامة للتعليم الصحي

Ref.:
Date:.....

الرقم:
التاريخ:

الأخ مدير عام الادارة العامة للمستشفيات المحترم ،،
الأخ مدير مجمع فلسطين الطبي المحترم،،
تحية واحترام،،،

الموضوع: تسهيل مهمة بحث

لاحقاً لموافقة معالي وزيرة الصحة، يرجى تسهيل مهمة الطالب: عبد الله غسان دعبيس،
دراسات عليا تمرير/ الجامعة العربية الامريكية، لعمل بحث بعنوان:

"تقييم حدوث والعوامل المحددة للصدمة الثانوية لدى الممرضين العاملين في الطوارئ في
فلسطين أثناء جائحة كورونا"

وذلك بالسماح له بالحصول على المعلومات من خلال تعبئة استبانة من قبل الممرضين (بعد
اخذ موافقتهم)، مع العلم ان مشرفة الدراسة د. بسمة سلامة، وذلك في:

- جميع مستشفيات وزارة الصحة والمجمع الطبي

على ان يتم الالتزام بجميع تعليمات واجراءات الوقاية والسلامة الصادرة عن وزارة الصحة
بخصوص جائحة كورونا، وتحت طائلة المسؤولية.

وتقبلوا نائق الاحترام،،،

د. عبد الله القواسمي
مدير التعليم الصحي



نسخة: مشرف الدراسة المحترم/ الجامعة العربية الامريكية



التاريخ 29/12/2020

حضرة د. امل أبو عوض المحترمة / مديرة عام التعليم الصحي في وزارة الصحة الفلسطينية

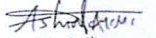
الموضوع: "تسهيل مهمة بحث لطلاب كلية التمريض"

تحية طيبة وبعد،

يهدبكم الجامعة العربية الأمريكية أطيب تحياتها وبالإنشارة إلى الموضوع اعلاه، وتماشيا مع سياسة دائرة التمريض في كلية العلوم الطبية المساندة / الجامعة العربية الأمريكية المتعلقة بتعزيز التعاون بين المؤسسات ووزارة الصحة الفلسطينية الموقرة بإتاحة فرص الإثراء العلمي للطلبة والخريجين في المؤسسات الوطنية وإسهامها في تنمية قدراتهم وخبراتهم، نرجو من حضرتكم التكرم بالإيماء للجهات المعنية لتسهيل مهمة الطالب عبد الله عسان دعيبس في كلية الدراسات العليا، لاستكمال بحثه العلمي بعنوان "تقييم حدوث والعوامل المحددة للصدمة الثانوية لدى المرضى العاملين في الطوارئ في فلسطين أثناء جائحة كورونا" في مستشفيات وزارة الصحة تحت إشراف (الدكتورة بسمة سلامة)، وذلك لأغراض البحث العلمي حيث سيكون الهدف من الدراسة: "قياس مدى حدوث الصدمة الثانوية لدى المرضى العاملين في أقسام الطوارئ والعوامل التي تساعد على حدوث الصدمة الثانوية ودراسة تأثيرات الصدمة الثانوية على المرضى العاملين في الطوارئ أثناء جائحة كورونا" عن طريق استمارة يتم تعبئتها إلكترونيا من قبل المرضى والمرضات في مستشفيات وزارة الصحة على أن تبدأ مهمتهم البحثية يوم الجمعة بتاريخ 2021/02/28 وتنتهي يوم الأحد بتاريخ 2021/02/28

كما نود التنويه بأن الطالب عبد الله عسان دعيبس سوف يقوم بجمع الاستمارات من تمريض الطوارئ وتعبئتها إلكترونيا وذلك بعد الحصول على موافقة رسمية من حضرتكم وإيضا تشهد بعدم ذكر أسماء المستشفيات أو أنها تابعة لوزارة الصحة في حال تم نشر البحث.

مع فائق الشكر والتقدير ...


د. أمال أبو عوض
عميد كلية الدراسات العليا



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الملخص باللغة العربية :

وباء كوفيد-19 هو وباء جديد ظهر في العالم بدء من مدينة وهاى فى الصين و انتشر الى العالم باسره ,يؤثر وباء كورونا على الاشخاص الذين يصابون به باضطرابات نفسية حادة قد تؤدى الى الوفاة , لكن بالاضافة الى التاثيرات الجسدية قد يزيد ذلك الى تاثيرات نفسية تؤثر على الحياة الفردية للاشخاص و من امثلة على ذلك هو حدوث الاضطرابات الصدمية الثانوية.

الاجهاد الصدمي الثانوي هو عبارة عن اضطرابات نفسية تنتج نتيجة التعرض الغير مباشر لصدمة ما حيث تؤدى الى حدوث اعراض نفسية مشابهة للتعرض المباشر لصدمة ما , العاملون فى القطاع الصحي و خاصة الذين يقدمون العناية بشكل مباشر للمرضى معرضون بشكل مباشر لحدوث اضطرابات الصدمة الثانوية , حيث العمل مع المرضى و خاصة مرضى كوفيد-19 و ضغط العمل و النقص فى معدات الوقائية و الخوف من الاصابة و رؤية العديد من الاصابات الخطرة او الوفيات كل ذلك يساعد على ظهور الصدمة الثانوية.

و من اجل تقييم مدى انتشار و تاثير الصدمات الثانوية بين الممرضين و الممرضات فى فلسطين تم استخدام دراسة مقطعية فى 17 مستشفى فى الضفة الغربية فى فلسطين اثناء انتشار جائحة كورونا , حيث تكونت العينة من 251 ممرض و ممرضة يعملون فى القسم الطوارىء فى فلسطين حيث اتم 189 ممرض و ممرضة البحث بالكامل و كانت نسبة الاقبال على البحث ..75%

الإحصاء الوصفي والاستنتاجي المستخدم لتقييم مستوى انتشار للإجهاد الثانوي بين ممرضين و ممرضات الطوارئ, أظهرت أن الممرضين و الممرضات فى الطوارئ لديهم درجة عالية من إجهاد الصدمة الثانوية حوالي 61 ٪ من إجمالي المشاركين فى البحث , وخلصت النتائج ان اغلب المشاركين لديهم أعراض عالية إلى شديدة من إجهاد الصدمة الثانوية. وأظهرت النتائج أن ممرضين و ممرضات الطوارئ فى فلسطين لديهم درجات مختلفة من الإرهاق ، ودرجة عالية من عدم الرضا الوظيفي ، وانخفاض مستوى الدعم التنظيمي ، ومستوى عالٍ من الدعم الاجتماعي.

أظهرت النتيجة أن سنوات الخبرة فقط ومستوى التعليم مرتبطان مع إجهاد الصدمة الثانوية ، والإرهاق والدعم التنظيمي مرتبطان بشكل كبير بالإجهاد الثانوي ، وأظهرت النتيجة أن سنوات الخبرة والإرهاق هي مؤشر على حدوث إجهاد الصدمة الثانوي.

