

**Deanship of Graduate Studies  
Al-Quds University**



**Work-Related Stress and Health Status of Nurses  
Working in Pediatric Departments at Governmental  
Hospitals in Gaza Strip**

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**Work-Related Stress and Health Status of Nurses  
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Hospitals in Gaza Strip**

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**Thesis approval**

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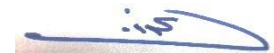
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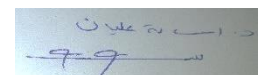
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**Jerusalem- Palestine**

**1441/2020**

## **Dedication**

*I dedicate this thesis to soul of my brothers Ahmed and Abdel AL- Kareem.  
Also, to my father and mother.*

*I dedicate this thesis to my children, Esraa, Ahmed and Salem.*

*I dedicate to my friends and all people who supported me.*

***Fatma Asad Fayyad***

## **Declaration**

I certify that this thesis submitted for the degree of master, is the result of my own research, except where otherwise acknowledged, and that this study has not been submitted for a higher degree to any other university or institution.

Signed: Fatma Fayyad

Fatma Asad Abed A-l Kareem Fayyad

Date: 16.6.2020

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**Fatma fayyad**

## Abstract

**Background:** Nursing has been identified as one of the most stressful professions since nurse has been exposed to a wide range of stressful situations and conditions. Nurses act directly as caregivers who serve the hospital for twenty-four hours a day. This gives nurses the unique perspective on both patient care and hospital level. This study **aimed** to explore the effect of work-related stress on health status, as well as to assess the level and sources of work-related stress among nurses working in pediatric departments at governmental hospitals in Gaza Strip.

**Method:** A cross-sectional descriptive analytic approach used to examine the WRS and health status of 179 nurses chosen by a systematic random sampling from nurses working in the pediatric departments in the governmental hospitals in GS. This study conducted in the period between March 2018 to March 2020 in the selected hospitals. The researcher adopted the Expanded Nursing Stress Scale to assess level and sources of stress among nurses and Health status indicators used to assess the health status of nurses included in this study beside a self-administered questionnaire to collect data.

**Results:** The results showed that (60.3%) of nurses' experience moderate level of stress, (36.3%) of them experienced severe stress, and the remaining (3.4%) experienced mild stress. The highest sources of stress were work-load and death and dying with a mean of (75%) for each. The most affected aspects of health status were the social and physical health as it has the highest score (64%). The most significant perceived effect of stress on physical health was identified as back pain (76%), headache (72%), unfelling relaxes (68%). The most significant effect of stress on social health were as working on holiday (76%), stress effect on family life as (68%). The results also showed that there is a statistically significant association between stress and age, gender, years of experience, work shift, salary and departments. No significant association between the stress level and marital status and qualification.

**Conclusion:** the results of study revealed that the workload, death and dying are the common sources of stress at workplace. The physical and social health status were greatly affected by WRS. The nurse needs to find strategies to manage nurse's workload and facilitate the comfortable workplace for nurses. The nursing administrators also need to encourage their staff nurses to utilize coping strategies to deal with these situations. Also needs to find constructive ways to make the work environment more friendly and pleasurable to reduce the level of stress.

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## **List of Abbreviations**

<b>Abbreviation</b>	<b>Full word</b>
GS.	Gaza Strip
ICU	Intensive Care Unit
MOH	Ministry of Health
ENSS	Expanded Nursing Stress Scale
PCBS	Palestinian Central Bureau of Statistics
SD	Stander Deviation
SPSS	Statistical Package for Social Sciences
UNRWA	United Nations Relief and Works Agency
US	United Stats
WHO	World Health Organization
WRS	Work-Related Stress

# Chapter One

## 1.1 Introduction

Nursing has been identified as one of the most stressful professions since nurses have been exposed to a wide range of stressful situations and conditions (WHO, 2015). Nurses act directly as caregivers who serve the hospital for long hours during the day. This gives nurses the unique perspective on both patient care and hospital level (Ingwu et al., 2018). Stress is considered a normal part of life which is necessary as a push to increasing functional capacity, but when it is experienced over a prolonged period it becomes detrimental to health which has an effect on the productivity (Salleh, 2008).

According to World Health Organization (WHO), the Work-related stress (WRS) is defined as unexpected situations or issues requiring personal engagement and undertaking tasks that do not comply with one's knowledge, expertise, or expectations, resulting in a person's inability to manage the situation (WHO, 2017).

The main stressors regarding nurses that are associated with work and work environment, such as conflicting demands imposed by nurse supervisors and managers, and by medical and administrative staff, uncooperative patients, criticism, lack of support from supervisors, workload, shift work and problems with physicians caused stress to hospital nurses (Mohamed Heir et al., 2016). Stressors also include poor salaries (Drury et al., 2014), poor social and peer support (Peters et al., 2013).

Work-related stress has a significant impact on nurses as workers' health and well-being, their quality of life and family life, job satisfaction, turnover, and absences from work (Salilih & Abajobir, 2014). Also, it has an impact on organizational function such as reduced productivity, organizational commitment, and reduced quality of patient care; as well as on patients' outcomes such as increased mortality and patient dissatisfaction (Keykaleh et al., 2018). The magnitude of WRS in healthcare workers was 46.9% and has been associated with damage to a person's physical, psychological and social health, while its high levels have been connected to high staff truancy and low levels of productivity (Godifay et al., 2018).

Prolonged exposure to WRS can lead to negative manifestations on the physical, psychological, cognitive and social well-being of nurses. According to recent literature, WRS could affect 9.25- 68.0% of nurses all over the world (Tadesse et al., 2016). The most common negative consequences include; headaches, back pain, inability to

concentrate, poor judgment, irritability, absenteeism, increased number of errors and inability to organize (Mwinga&Mugula, 2015).

On the basis of these negative consequences, it's important to the researchers to investigate and study the occurrence and effects of WRS. So, the purpose of this study is to identify the effect of WRS on the health status of nurses working on the pediatric departments in the governmental hospitals in Gaza Strip (GS).

## **1.2 Problem Statement**

Nursing as a profession frequently face stressful events especially at pediatric departments because pediatric nurses are faced with unique care-giving challenges and taking on the full responsibility of caring for the patients; which contribute to stress and effect on their own health and the delivery for their patients. Not only play a role in providing care for the sick child, but they also need to deal with the emotional needs of parents, and other family members. These stressful situations have a psychological impact on nurses with a rate of 63% (Al hajjar, 2013). These events have also affected the physical status such as back pain with a rate of 68.8%, headache 55% and fatigue 28.7% (Ingwu et al., 2018).

According to Ayed et al. (2014), approximately 50% of nurses in Palestine are suffering from either physical or mental illness. These stressors also could have a negative impact on the cognitive status of nurses and consequently affect the productivity of nurses and increases the medical errors and reducing the quality of care provided to patients admitted to these departments. Through working in pediatric department, the researcher noticed that most frequent occupational stressors include lack of nursing staff, overcrowdings and increased work load, work during breaks and lack time required for nursing care. Stressors also include lack of administrative and manager support that the nurses missed it during the nursing care especially in stressful situations.

Other consequences of WRS include burnout with a rate of 51% among nurses in general (Nantsupawat et al., 2017) and especially the majority of the pediatric nurses (84%) are sometimes burning due to their work place (Hassan, 2015). It also includes increasing the incidence of nurses' turnover (Mealer et al., 2016). Globally, the costs of WRS are estimated to be approximately 5.4 billion USD each year (Salilih & Abajobir, 2014). So, it is important for nurses to find healthy ways for nurses to cope with WRS. The aim of this study is to identify the effect of WRS on the health status of nurses working on the pediatric departments at the governmental hospitals in GS.

### 1.3 Justification

After an extensive search in different libraries and electronic data bases, the researcher found that most research studies on WRS among nurses has been conducted in Europe and developed countries. Only a few studies have been conducted in Arab countries in general and Palestine in particular to explore this issue. It is important to tackle the problem of WRS and its impact on the health status on nurses in general and those working in the pediatric departments in particular. This study will benefit nurses in different levels:

**At administrative level:** The nurse administrative can identify the specific sources of stress and can plan to find solutions to reduce stress among nurses. Findings of this study will be provided to the decision-makers in the ministry of health to help in improving the work environment in the pediatric departments and to develop strategies help in reducing the work-related stress. The nursing administrative can provide stress reduction program targeting specific important stressors will be helpful manages occupational stress of nurses.

**At nursing practice:** Findings of this study may contribute in increasing nursing awareness about WRS and its negative consequences on the health status of nurses and may enhance the body of knowledge about nurses WRS. This study will provide suggestions to hospital policy makers to improve practices by provide work environment free from stress.

**At nursing research:** This study will be a baseline for further more advanced studies in the future to help in reducing work-related stresses, Present study have contributed in nursing research to find out source of stress in nurses at pediatric wards and areas where there is scope to improve work environment of nurses and subsequently reducing the health-related problems among nurses working in the pediatric departments in the governmental hospitals in GS.

**At education level:** The findings of this study Stress management program can be added in syllabus of nursing education so that they could manage their own stress in future, to help reduce its impact on the health status of nurses. Education of nurses for stress management and skilled training for conflict resolution, as assertiveness will help to reduce stress among nurses. Nurse educators can be building nurses with strong knowledge and skill base so can manage any problem independently.

It's important to find solutions and suggestions about WRS and working environment may improve quality of care, ensure patient safety and improve of nursing health status.

#### **1.4 General objective**

The main aim of this study is to identify the effect of WRS on health status of nurses working in pediatric departments at governmental hospitals in GS.

#### **1.5 Specific Objectives**

1. Assess the level of stress among nurses working in pediatric departments at governmental hospitals in GS.
2. Determine the sources of WRS among nurses working in pediatric departments at governmental hospitals in GS.
3. Explore the effect of stress on physical, psychological, cognitive and social health status of nurses working in pediatric departments at governmental hospitals in GS.
4. Determine the relationship between WRS and selected sociodemographic characteristics of nurses working in pediatric departments at governmental hospitals in GS.

#### **1.6 Research Questions**

1. What is the level of WRS of nurses working in pediatric departments at governmental hospitals in GS?
2. What are the sources of WRS to nurses working in pediatric departments at governmental hospitals in GS?
3. What is the effect of WRS on the physical health status of nurses working in pediatric departments at governmental hospitals in GS?
4. What is the impact of WRS on the psychological health status of nurses working in pediatric departments at governmental hospitals in GS?
5. Is there a relationship between WRS and social health status of nurses working in pediatric departments at governmental hospitals in GS?
6. What is the impact of WRS on the cognitive health status of nurses working in pediatric departments at governmental hospitals in GS?
7. Is there relationship between WRS and age of nurses working in pediatric departments at governmental hospitals in GS?
8. Is there relationship between WRS and the gender of nurses working in pediatric departments at governmental hospitals in GS?
9. Is there relationship between WRS and marital status to nurses working pediatric departments at governmental hospitals in GS?

10. Does shift work play a role as WRS on the health status of nurses working in pediatric departments at governmental hospitals in GS?
11. Is there relationship between WRS and years of experiences of nurse in pediatric departments at governmental hospitals in GS?
12. Is there relationship between WRS and nursing qualifications in pediatric departments at governmental hospitals in GS?
13. Is there relationship between WRS and working unit of nurses in the pediatric departments at governmental hospitals in GS?
14. Is there relationship between WRS and salary per month of nurses in pediatric departments at governmental hospitals in GS?

## **1.7 Context of study**

### **1.7.1 Demographic Context**

Palestine is the historical name for the region between the Mediterranean Sea and the Jordan River. Palestine is situated on the Eastern coast of the Mediterranean Sea. It borders Lebanon in the North, Jordan in the East, and Egypt and the Red Sea in the South. The occupied Palestinian territory is the part of historical Palestine that was occupied by Israel after the six-day Arab-Israeli war of 1967. The occupied Palestinian territory consists of the West Bank (WB), including East Jerusalem, and the Gaza, with borders with Egypt, Israel, and Jordan. According to the Palestinian Central Bureau of Statistics (PCBS, 2018), the current population of the State of Palestine is 5,073,357 million Palestinians in the world. About 3 million of them live in Israel and the Occupied Territories—the WB and GS. Most of the rest live in neighboring Arab countries such as Jordan, Lebanon, and Syria. The United Nation lists 2 million Palestinian refugees. The median age in the State of Palestine is 20.8 years. The total size of GS is about 365 square kilometers (PCBS,2019).

### **1.7.2 Palestinian Health Care System**

### **1.7.3 Demographic characteristics of Gaza governorates:**

Palestine is an Arab Country, relatively small one, The total surface area of historical Palestine is about 27.000 Km, the population of Palestine was 4,854,013, of whom 2.46million were males compared to 2.38 million female, while West Bank had 2.92 million inhabitants, 60.2% of the total population of Palestine of which about 1.48 million were males Compared to1.43 million females, while the population of GS was 1.93

million, 39.8 of total population of Palestine, of which about 979 of thousand were males compared to 953 thousand were females (PCBS, 2019).

GS: is a self-governing Palestinian territory on the eastern coast of the Mediterranean Sea, that borders Egypt on the southwest and Israel on the east and north along border. While the population of GS was 1.93 million (PCBS,2019) The population pyramid in 2018 shows that the Palestinian society is a young society. The population of the age under 15 years was WB and 41.6% in GS. GS is divided into five governorates: Gaza Governorate, North Governorate, Mid region Governorate, Khan-Younis Governorate, and Rafah Governorate (MOH, 2016).

As a result of the improvement in the health conditions in Palestine and the gradual decline in infant, child mortality rates and maternal mortality, life expectancy has increased. The life expectancy rate was 73.9 years, 72.8 years for males and 75.1 years for females, with a difference between WB and GS. In West Bank, it was 74.2 years, 73.1 years for males and 75.4 years for females. In GS, life expectancy was 73.5 years; 72.4 years for males and 74.6 years for females (PCBS, 2019).

#### **1.7.4 Health care system**

MOH provide health services at deferent levels of preventive, diagnostic and therapeutic health care. The Palestinian MOH is the main provider of primary health care in the WB, accounting for over 71% of the 583 clinics. In the GS, the MOH accounts for approximately a third (33%) of the 160 primary health clinics, with a larger role played by the United Nations Relief and Works Agency (UNRWA) and non-State actors. Additionally, there were 15 mobile clinics operating in Area C of the WB by the end of 2018, the majority provided by non-State actors. 3 There are 81 hospitals in total in the occupied Palestinian territory, with 51 in the WB and 30 in the GS. Bed capacity is approximately 1.7 beds per 1000 population and is the same for the WB and GS. The MOH accounts for 43% of bed capacity in the WB and 73% of bed capacity in the GS. Non-State actors account for 46% of bed capacity in the WB and 22% in the GS, while private institutions provide 9% and UNRWA provides 2% of bed capacity in the WB and the Military Medical Services provide for 6% of bed capacity in the GS. The occupied Palestinian territory is divided geographically and politically. Passage between the WB and GS goes through Israel meaning that the Israel control the patients in access to care, all

patients and patient companions from the GS must apply for Israeli permits to exit the GS in order to access hospitals in the WB, including east Jerusalem, and Israel. Access has been particularly problematic in recent years, with the patient permit approval rate declining from more than 90% in 2012 to reach an all-time low of 54% in 2017 (WHO, 2019).

### **1.7.5 Organization of healthcare for Palestinian children**

The main provider of healthcare is the Palestinian MOH that provides primary care services for children up to 5 and secondary care in hospitals in the WB and Gaza (the MOH operates 24 of 78 hospitals in Palestine). However, there are also several other providers of healthcare: UNRWA that provides primary healthcare for Palestinian refugees, non-governmental organizations that are major providers in tertiary care services especially in Jerusalem and offer secondary care services and to a lesser extent some primary healthcare service. Palestinian Red Crescent that provides ambulance services and some clinics. The private sector that covers private doctors and is a new sector in providing health services in Palestine (Waterston& Nasser, 2017).

### **1.7.6 Governmental pediatric hospitals in GS**

The pediatric hospitals in GS provide care for children between age 1 month to 12 years. The pediatric governmental hospitals at GS includes: Nasser, European, Al-Aqsa, Al Nasser, Rantisy and Al Dora hospital.

**Al-Nasser Pediatric Hospital:** It is located in the western part of GS, providing several medical services for children and its was considered from the largest governmental hospitals provide health services for children. The hospital provides medical services. The hospital consists of several different sections' emergency, medical and ICU.

**Khan-Younis (Nasser) Hospital:** is located in the south part of GS, providing services for 3733 persons/ km. and contain two medical and emergency departments.

**Al Rantisy Hospital:** A specialized hospital for children with a capacity of 100 beds. The hospital provides medical services as a transfer hospital from all regions of the Gaza Strip, covering a group of 600,000 children. The hospital consists of several departments specializing in diseases of the digestive system, chest, kidneys, nerves, heart, endocrine, blood and tumor diseases, in addition to intensive care and emergency.

**European hospital:** provides health services but more involvement than Nasser hospital for the east region of Khan Younis and south region of GS. It consists from medical, surgical and ICU and emergency departments.

**Al-Aqsa Hospital:** provides health services for the middle zone of GS. It consists from three medical departments and emergency.

**Al Dora Hospital:** A hospital that provides general pediatric services in Gaza City, and the clinical capacity of the hospital is 100. The hospital offers several services including physiotherapy, chest diseases, kidney disease, blood and endocrine diseases and treatment of convulsions.

### **1.7.7 Underlying determinants of health**

The occupation of the WB and the closure of the GS affect the underlying determinants of health for Palestinians, with 68% of households facing moderate to severe food insecurity in the GS (12% in the WB), 1.9 million Palestinians are dependent on humanitarian assistance for water and sanitation and 260 500 face gaps and vulnerabilities in accessing adequate shelter and non-food items. These vulnerabilities have an impact on health outcomes, especially low-income families (WHO, 2019).

**Nursing situation in Palestine:** previously, the majority of registered Palestinian nurses trained for three years in nursing school. In more recent years, the rate of bachelor's qualified nurses has been increasing, and a number of universities have developed Master's programs with different specialties, also, Diplomas in midwifery, and Bachelor's degrees in midwifery and Doctoral programs are available. The Palestinian Nursing Association in the WB and Gaza is a regulatory body for nurses. Nurses hold several positions in the Palestinian (MOH) and various roles in government and nongovernmental organizations. Each hospital has a senior nurse in charge. There are nursing leadership positions in the various geographically based primary/community care services (Jaradat et al., 2018).

## **1.8 Definition of the terms**

**Work-Related Stress:** Defined unexpected situations or issues requiring personal engagement and undertaking tasks that do not comply with one's knowledge, expertise, or expectations, resulting in person's inability to manage the situation (WHO, 2017).

**Health Status:** A state of complete physical, mental and social well-being, and not merely the absence of disease”. Health can be considered in terms of a person’s body structure and function and the presence or absence of disease or signs (WHO, 2014).

**Physical Health:** Is the overall physical condition of a living organism at a given time. It is the soundness of the body, freedom from disease or abnormality, and the condition of optimal well-being. It is when the body is functioning as it was designed to function (Kurtus, 2017).

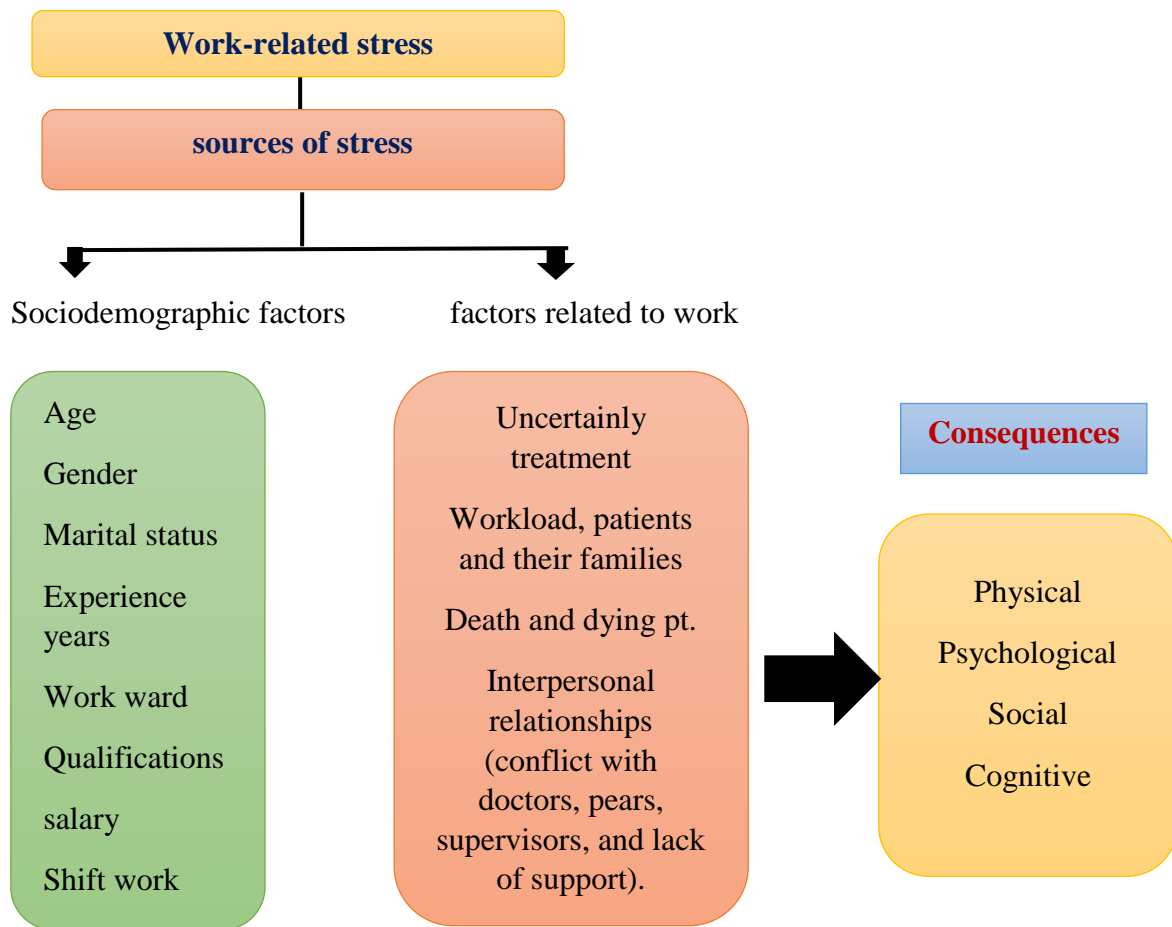
**Psychological Health:** Is defined as a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to contribute to her or his community (WHO, 2014).

**Cognitive Health:** Refers to the health of the brain and its overall function. Specifically, cognition is the combination of several critical brain functions, including memory, judgment, language, intuition and the ability to learn (U.S. Centers for Disease Control and Prevention, 2017).

**Social Health:** Ability to form meaningful relationships with other people and interact in healthy, positive ways (Blog, 2017).

### **1.9 Conceptual framework:**

This model constructed by the researcher herself after an extensive search of related articles and studies shows the work-related stress. This model consists of sources WRS such sources related to work such as workload, shiftwork, work environment or organizational sources such as lack of staff support, administration support, conflict with peers. These stressors have adverse reaction on physical, psychological, cognitive and social which effect on personal and care quality negatively.



**Figure (1.1): Conceptual framework "self-developed"**

## Chapter Two

### Literature Review

#### 2.1 Background

Every work environment especially within a hospital setup needs to be conducive, friendly and stress free to promote quality care and wellbeing of health care workers whose job demands are increasing day by day (Ojekou & Odetola, 2015). In recent years, nursing has been reported to be one of the most stressful professions in both developed and developing countries due to exposure to a wide range of stressful situations and conditions at work place (Tran et al., 2019). Some of sources of stress and consequences of stress on health status of nurses were identified in literature review. Prolonged exposure to WRS contributes to high burnout which leads to lower job satisfaction owing to depletion of resources necessary to meet job expectations. The majority of the pediatric nurses (84%) are sometimes burning due to their work place, and the pediatric nurses are exposure to some burdens due to the practice environment (Hassan, 2015).

#### 2.2 Definition of stress and work stress

Hans Selye known as "**father of modern stress**" coined the term "**stress**". The word stress has come from the Latin word "stringere" which means to "draw tight". Hans Selye in 1936 defined stress as, "a syndrome produced by diverse noxious agents". He described stress as a non-specific response of the body to "noxious stimuli" (Burman & Goswami, 2018).

According to Lazarus, (1976), stress occurs when there are demands on the person, which taxes or exceeds his adjustive resources (Burman & Goswami, 2015). Health Safety Executive (2019) defines the WRS as "The adverse reaction people have to excessive pressures or other types of demand placed on them at work".

WHO (2017), defines the WRS as unexpected situations or issues requiring personal engagement and undertaking tasks that do not comply with one's knowledge, expertise, or expectations, resulting in person's inability to manage the situation. While Yan & Xie (2016) define the WRS: as a series of physiological, psychological and behavioral responses due to the continuing effects of one or more stressors on individuals in an organization.

### 2.3 Theories of work-related stress

There are many theories that talk about WRS which can help us in our job and career in managing the stress at work place, perhaps the leader or manager may support the employees to reduce stressors and improve the productivity.

**Transactional theory** suggests that stress is the direct product of a transaction between an individual and their environment. The stress results from imbalance between resources and demand. This model proposed that stress is experienced as appraisal of the situation we find ourselves in it. also, this model suggests we go through two stages of appraisal before feeling and responding to stress. *primary appraisal*: we evaluate the situation to decide if it is potential impact to ourselves. If we feel it is dangerous, we then move into making *a secondary appraisal*: In these appraisals, we decide if we have the ability to cope with the situation – usually by examining the balance of situational demands (such as risk, uncertainty, difficulty etc.) and our perceived resources (including things such as social support, expertise etc.) If we feel demands outweigh resources, we experience negative stress. At this point, we also start to engage in *coping strategies*. Lazarus and Folkman suggest these strategies include disclaiming (denial), escape-avoidance, accepting responsibility or blame, exercising self-control (of thoughts and behaviors related to the situation) and engaging in positive reappraisals (finding a positive spin on the situation). Emotion-based coping may be particularly suitable to situations which cannot actually be influenced in a meaningful way (Lazarus 1986, Lazarus and Folkman 1987).

**Interactional theories of stress** emphasis the interaction of the environmental stimulus and the associated individual responses as a foundation of stress. Its theory focused on two models. (person- environment fit) model, the person must fit with the environment surrounding them. If the misfit high, the level of stress increased. Also, another model called it (Job Demands–Control–Support Model) that the people who have minimal control over their circumstances lead to high level of stress (Lazarus and Launier, 1978).

### 2.4 Sources of Work-Related Stress

Nurses act directly as caregivers who serve the hospital for long hours during the day. This gives nurses the unique perspective on both patient care and hospital level (Ingwu et al., 2018). The common sources of stress at work is including some related to work environment such as shift work, workload (Dobnik et al., 2018). Poor working environments and some sources of stress may relate to organization and interpersonal such

as lack of control and conflicting demands, bad relations with colleagues, low pay (Mwinda&Mugala, 2015).

#### **2.4.1 Sociodemographic factors**

The sociodemographic factors include associated age, sex, marital status, qualifications, departments, shift work, experience years and salary.

##### **2.4.1.1 Age**

Age is considered as a component of sociodemographic data; age of nursing has a role in increase of WRS. A cross- sectional study was conducted in five government hospitals and four sectors of primary health care centers in Saudi Arabia found that their significant relationship between nurses' age and stress (Alenezi et al.,2018).

Another a cross-sectional study was conducted among registered nurses working in wards of a tertiary care hospital, Goa where in Expanded Nursing Stress Scale was used to assess level and sources of stress among them the result found that nurses more than 40 years of age and females were found to be at a higher risk of developing work related stress (Vernekar &Shah, 2018). Similarly, a study among nurses in Sri Lanka revealed that high stress levels were significantly associated with 40-49-year age group (Muraleeswaran et al., 2016). However, in a study conducted at Delhi, there was no significant association found between occupational stress and selected demographic variable namely age and sex (Mohite et al., 2014).

In the same track a cross-sectional study was performed at Liaquat University Hospital, Jamshoro from 1st July 2015 to 31st January 2016. Study was accomplished on 100 registered nurses found that the old age staffs belongs to above 30 years of age have 61% of stress (Panhwar et al., 2019).

##### **2.4.1.2 Sex**

In most countries and worldwide, the nursing profession is considered to be female dominant occupation. In an institution based cross sectional study conducted between April, 5 and May, 6, 2015 a total number of 592 healthcare workers were selected from 3 hospitals to be included in the study. Data were collected through self-administered standardized questionnaire, to study WRS among Health Care Workers in Mekelle City Administration Public Hospitals, North Ethiopia found that the magnitude of WRS was higher among females (62.8%) when compared to males' health care workers (Godifay et al., 2018).

Nursing profession consider as suitable job for women because it was extensive of their domestic roles. Nightingale's image of nurse as, nurturing, domestic, humble, self-sacrificing. Female nurses are more likely to WRS with rate (43.7%) than male with rate (22.96%), according to these studies (Salilih& Abajobir,2012., al-hajar,2013., Yada et al., 2014 and Ayivi-Guédéhoussou, 2016).

Another a Cross sectional research design was adopted. And a number of nurses (200) working in selected tertiary care hospital were selected by using probability simple random sampling technique to study Stress among Nurses Stress is more prevalent among the female gender as nursing is a female dominated profession and the study participants where majority of them were female (Rajeswari & Sreelekha, 2016).

#### **2.4.1.3 Marital status**

Nurses spend more time with patients than other health care providers, which effects on their lives and their families. A cross- sectional study was conducted in five government hospitals and four sectors of primary health care centers in Saudi Arabia found that their significant relationship between marital status and stress (Alenezi et al., 2018).

Also, another institution based cross sectional survey was carried out by Anand&Mejid, (2018) from March to April, 2017, in order to estimate the prevalence and factors associated with work related stress among nurses working in Worabe Comprehensive and Specialized Hospital, Ethiopia. A self-administered questionnaire was distributed to 138 nurses in the hospital, who were randomly selected for the study, found that the married nurses (54.81%) were more stressed than unmarried nurses which is in line with the results of studies from Saudi Arabia by Al-Makhaita et al., 2014, Iran by Yamaguchi et al., 2016 and Gaza by Al Hajar, 2013 and had statistically significant association between job stresses and marital status of nurses.

An institution based cross sectional study was conducted from April 5 to 6 May 2015 in 592 healthcare workers who were selected from 3 hospitals. Data were collected through self-administration of standardized questionnaire, to study Work Related Stress among Health Care Workers in Mekelle City Administration Public Hospitals, North Ethiopia the result was a greater number of work-related stress subjects were found 90.9% in the group of widowed/divorced/separated, 63.5% single and 24.9% were married (Godifay et al., 2018).

Unmarried nurses were mostly affected with high level of stress as this could be due to responsibilities they have at personal and professional life according to (Rajeswar &Sreelekha, 2016). In this study was conducted by (Najimi et al., 2012) in this cross-sectional study, 189 nurses from Kashan hospitals of different wards were studied. There is no significant relationship between marriage status of nurses with stress maker factors. But in that study of (Khaqhani Zadeh et al., 2012) found, there is a relation between marital status and job stress of nurses. The same result was found in study conducted by (Vernekar &Shah, 2018) found relationship between marital status and WRS of nurses and majority of the nurses (67%) were married.

#### **2.4.1.4 Qualifications**

In Palestine, education level of nurses working in governmental hospitals including Pediatric departments varies from diploma, bachelor, master to doctorate. Institution based cross sectional survey was carried out in Ethiopia from March to April, 2017, in order to estimate the prevalence and factors associated with WRS among nurses working in Worabe Comprehensive and Specialized Hospital. The result revealed that the diploma level nurses (49.6%) perceived more stress compared to graduate and post graduate nurses and showed highly significant statistical association (Anand&Mejid, 2018). While Najimi et al. (2012) showed no relation between education level of nurses and work-related stress. Khaqhani Zadeh et al. (2012) also showed no relation between level of academic education and job stress.

#### **2.4.1.5 Working Unit**

WRS varies according to working units, every department for the overall health and well-being of their patients. In Gaza Strip hospitals, the pediatric departments include surgical, medical, emergency and intensive care unit (ICU). An according to study was conducted by Daggat et al. (2014) found that their existed overall WRS variations between working units. Also, another Jordan study support that WRS difference across the working units (Al-hawajreh, 2011).

The department in which the staff nurses were worked had a statistically significant positive impact on the level of stress among them. It was found that a large number (42%) of nurses worked in ICU/emergency department suffered from stress compared by those worked in medicine and surgery department (15% each) according to study conducted by Davey et al. (2019) to study of Is work-associated stress converted into psychological distress among the staff nurses.

Nurses in ICU reported that they experienced more stressful conditions than those involved in other wards of hospitals (Mealer et al., 2012). Another study found that medical ward, surgical ward were stressful areas of work among nurses, the least stress was experienced in emergency unit presence of adequate and trained experienced staff to man the unit according to the (Anand & Majid, 2018).

According to (Rajeswari & Sreelekha, 2016) Nurses working in wards and intensive care unit experience high level of stress. Nurses living in urban area have high level of stress. Listening to music is the commonly use relaxation technique used by majority of the nurses to relieve the stress. Study disagree with the previous results that found no relationship between the work unit and WRS according to (Godify et al., 2016).

#### **2.4.1.6 Salary**

The median daily wage for workers in Palestine amounted to NIS 92.3, which means that the wages of half of the known-wage workers were above NIS 92.3 and the wages of the other half were below that (Kanafani, 2017). This is the average monthly salary including housing, transport, and other benefits. Salaries differ drastically between different jobs. People are often motivated by money. The salary can have a great influence on his performance in the administration.

The monthly income has strong association with stress at work place and acts as a strong motivator to work especially in high stress areas according to (Al hajjar, 2013). Also, insufficient financial compensation to be associated with increased professional stress among nurses (Sharma et al., 2014). A hospital-based, cross-sectional conducted to explore if there is work-associated stress converted into psychological distress among the staff nurses the result of this study were the hospital nurses reported, the single most important factor responsible for high levels of stress (70%) among the study subjects in the present study was inadequate salary (Davey et al., 2019). Similarly, in other study, majority of respondents (staff nurses) were unhappy with pay (61%) leading to stress (Gulavani & Shind, 2014).

A person who earning a high salary feels motivated to do a good job, because the salary brings him a feeling of security, allows him to feel accomplished and gives high level of job satisfaction. According to (Rajeswari & Sreelekha, 2016). The hospitals with better nurse staffing and work environments have better nurse outcomes less burnout, job dissatisfaction, and intention to leave the job. The nurse who not happy with the salary

received will experience stress especially when the work pressure high. which is consistent with the findings of Demerouti, Bakker, Nachreiner, and Schaufeli (2000).

Another a cross-sectional study was designed to survey the sources of job stress among nurses in private hospitals in Shiraz from December 2015 to May 2016. The study results showed that low income is consider from the source of stress (Asadi H et al., 2017). Similarity of this study found that the monthly income was associated with WRS according to (Godifay et al., 2018).

#### **2.4.1.7 Experience**

Experience is knowledge or acquisition of skills in a particular job or activity, which we gained from our job when do it for long time. Nurses are varying in their impact of work stress according to years of experience. Nurses having less than 5years work experience reported stress with range (48.1%) compared to those who were more experienced according to study conducted by (Anand& Mejid, 2018).

Another study was conducted by (Godifay et al., 2018), found that nurses those who had work experience  $\geq 5$  years, 4.1times more likely had WRS than those not experienced. (44.7%) had experience of less than 10 years in nursing profession according to study of (Vernnekar&Shah, 2018).

Sometime the growing years of experience lead to stress due to the demands and added responsibilities according to (Rajeswari&Sreelekha, 2016).

#### **2.4.1.8 Rotating Shift and night Work**

Hospitals are institutions where service is given for 24 hours 7days a week and nurses are largely locked into schedules including night shift (Korompel et al., 2015). shift work It is defined as organization of daily working hours where different persons or teams work in succession to cover more than the usual eight-hour day (Jaradat et al., 2018). In the United States, nearly one-quarter of the workforce is on the job more than the 40-hour traditional work week, and two-thirds of those employees work more than 49 hours per week (United States Bureau of Labor Statistics, 2012).

Extended work shift hours expose nurses to increased workplace stressors compared to regularly scheduled shifts and an increase in accidents, injuries, and other incidents are associated with long work hours. Nurses work 12-hour shifts to provide continuous 24-hour inpatient care creating sleep deprivation and higher stress demands. Consequently, risks for

chronic illnesses such as obesity, hypertension, diabetes, and other mental or physical disorders increased (Canady & Allen, 2015). Also, Shift work is unavoidable for many nurses and have negative impact on working shift, it influences on the opportunities for spare time activities especially nurses that working evening shifts which lead to experiencing trouble falling asleep (Jensen et al., 2018).

Shift work may affect fatigue level of nurse and WRS. Across sectional study was conducted to study the effect of shift work on fatigue in Indonesia was found that fatigue contributed about 61% to increase WRS (Juniartha et al., 2018).

Shift work interfere with cognitive functions, a comparative study conducted in Korea to identify the effect of shift and non-shift on nurses. The study found the Shift work interfere with cognitive functions (Jin & Wan, 2017) and nurses working shifts have higher levels of mental distress and lower levels of job satisfaction (Jaradat et al., 2018).

A Cross Sectional Study was to determine the variables that are positively associated with occupational stress among nurses who work in a critical care setting in Iran the study revealed that the nurse who worked as shift rotations are stressed (Vahedian et al., 2019). Similar to ones found that nurses in the United States such as shift rotation and inadequate support are more stressed (Gupta, 2016).

Nurse who work shift may experience low level of stress if they was not scheduled to work 7 consecutive days according to study was aimed to measured shift work scheduling and occupational stress by using the Effort-Reward Imbalance model with self-reported questionnaires in a sample of 654 female nurses (Lin et al., 2015).

Another study Nurses from four Chiayi County district hospitals in Taiwan (n = 266) participated in this a cross-sectional study from the aim of this study was to describe the current state of nurses' shift work in Taiwan and how it affects nurses' stress, sleep quality and self-perceived health status. The results showed that regardless of the amount of shift work they performed; the nurses were reported job stress. According to result of study conducted by (Lin et al., 2014) found a significant relationship between shift work and WRS.

Shiftwork has some of the negative impacts on health status of nurses such as increased blood pressure and pulse rate, physiological headache, changes and decreased sleep time, risk for weight gain, increased WRS and increased fatigue (Kim et al., 2013).

A Greek study noted that the nurses doing night shifts as compared to day shift (DS) nurses experience more severe symptoms of fatigue, sleepiness, and impaired concentration which consider from consequences of stress (korompeli et al., 2013).

The nurses who worked rotating shifts tended to experience WRS than those who worked day/non-night shifts, but their stress levels improved if they had at least 2 days off after their most recent night (Lin H. et al., 2014).

Night-shift workers had a higher percentage of physical and mental symptoms when working shifts compared with evening-shift workers, with mood swings and headaches being the most common (Jensen et al., 2018). And may negatively impact of work–life balance and social interactions, resulting in greater mental distress. Moreover, previous studies have revealed that night shift is associated with an increased risk of depressive symptoms, Higher rates of anxiety among nurses working night shifts may be associated with poor sleep quality induced by night shift (saliva et al., 2015).

Across-sectional study conducted to study nurses working in rotating night shifts and day shifts in northern Italian city found that the nurses engaged in rotating night shifts were statistically significantly different. They reported the lowest mean score of job satisfaction, quality and quantity of sleep, with more frequent chronic fatigue, psychological, and cardiovascular symptoms in comparison with the day shift workers, in a statistically significant way (Ferri et al., 2016).

## **2.4.2 Factors Associated With WRS**

### **2.4.2.1 Uncertainly medication:**

About uncertainty concerning treatment in hospitals, Alenezi et al. (2018) consider this issue from the sources of stress. Similarly, of this study which was conducted by Anand&Mejid, (2018), was found that the most frequent source of stress at work place was uncertainty concerning treatment (34.1%). Especially when the nurse could disagree with a physician about the appropriateness of orders the physician has given for medication for a patient, or think the physician should give orders for pain medication the physician has refrained from providing. Nurses can get frustrated if they feel their concerns, questions, and opinions about patient care or other processes are being ignored. Nurses often have to call physicians to ask for clarification or instruction in how to proceed with a particular patient, and physicians are not always receptive to such calls. Physicians are sometimes

impatient when the nurse does not have all the available information about the patient at hand that the physician needs to make a decision (LeTourneau, 2004).

Another descriptive study design was used with explorative research approach; study sample was 100 nurses selected by Convenient sampling technique, the result was the majority of nurses reported that the most frequent occurrence of stress was associated with Uncertainty by concerning treatment (49%) (Gulavani & Shinde, 2014).

#### **2.4.2.2 Stress and Patients and Families:**

The hospital setting can put patients in extreme distress as they worry about their health, their family members. Decreased safety compliance is associated with an increase in stress, long work hours and high patient demand (Vahedian-Azimi et al., 2019). The abusive behavior toward nurses by patients and families are contribute to stress (Mealer et al., 2012). Similarly, in another study dealing with patients and families was found to be major (48%) contributory factor of stress (Gulavani & Shind, 2014). The most stressful events that was the staff nurses reported in similar study; the mistrust of the patients and their relatives and arguing with them, also the tolerating abuse and insult,” and “ingratitude of some of the patients and their families (Adib-Hajbaghery, 2007).

Patient's and visitor's violence are considered workplace hazard for healthcare professionals, mainly in nursing. who remain for more time interacting with patients and visitors. In their study, Kurt et al. (2017) found that more than half of nurses stated that they had high level of stress due to negative attitudes of patients or their families toward nurses. The stress is produced by such causes that nurses are continually in contact with patients, their hospital attendants as well as visitors; there are problems in coordination and patient relatives insist on visiting patients out of visiting hours. In the same track; some studies reported that inability to cope with wishes of patients and their relatives causes stress among nurses too (Milutinovic et al., 2012; Lim et al., 2010).

#### **2.4.2.3 Workload:**

Nursing is a highly stressful occupation especially for those working in the pediatric departments. the heights source of stress in nursing is workload “Not enough staff to adequately cover the unit” (Danjin et al., 2016). Nursing shortages occurring in health care systems around the world have adverse effects on the health of the people (ICN,2015).

WRS in the nursing working environment is prevalent and significantly affects the performance of nurses and organizations. Poor nursing and administrative performance

affect the delivery of safety and quality patient care. This study aims to compare the sources and factors of stress among nurses from hospitals and primary health care centers by a cross-sectional study was conducted in five government hospitals and four sectors of primary health care centers in Saudi Arabia, the result revealed that the workload was the most common source of WRS (Alenezi et al., 2018).

Another study showed that excessive workload as a source of stress 40%, (Ingwu et al., 2018). Especially in the nurse having to work through breaks (54%), and not enough time to complete all nursing tasks with rate (46%) which causing stress in nursing job (Mehta & Singh, 2014). Similarity of this study found that a heavy workload could be associated with increased professional stress among nurses according to (Sharma et al., 2014).

Nurses are experiencing higher workloads than ever before due to main reasons: increased demand of patients for nurses, inadequate supply of nurses, reduced staffing and increased overtime. A study of job-related stress among nurses working in private hospitals in Amman Jordan revealed that lack of enough staff to adequately cover the unit is the most stressful event perceived by the staff nurses. The study indicated the importance of adopting strategies to reduce the perceived job-related stress and also adopting strategies to demonstrate more social support for the staff nurses in the work place (Al-nems et al., 2004). Also, Nurse-patient ratio considers as a stress factor by most (92.3%) of nurses which effect on patients' outcome (Mwinga & Mugala, 2015). A survey employed in Gaza-Palestine to study WRS among hospital nurses, it indicated that the most severe WRSs were; not enough staff to cover the unit adequately, lack of drugs and equipment required for nursing care and unpredictable staffing and scheduling (AL hajar, 2013).

Workload is negatively associated with several indices of psychological, physical well-being, and affective organizational commitment, and is positively associated with turnover intention and absenteeism. From the item analysis it is clearly evident that majority of the nurses (50.5%) feel they have a hectic schedule of work and it felt by (65%) work under lots of pressure (Bowling et al., 2015).

A cross-sectional study to determine the WRS and find out the various sources of job-related stress among Nurses of Liaquat University Hospital, Jamshoro was found the Work load as the prominent source of causing WRS among nurses with rate (56%) (Panhwar et al., 2019). Another a cross-sectional study was performed at Liaquat University Hospital, Jamshoro from 1st July 2015 to 31st January 2016 to study job related stress and its

various sources among nurses working at Liaquat university hospital, Jamshoro. among the sources of stress was found the workload (56%).

The workload considers a source with rate (44%) with adversely effects on patient safety. Furthermore, it negatively affects nursing job satisfaction and as contribute to high turnover and nursing shortage (Anand& Mejid, 2018). The researcher also mentioned that other factors that may contribute to stress inadequate training, and lack of time for care (Ko & Kiser-Larson, 2016).

In a cross-sectional study conducted (Ko & Kiser-Larson, 2016), it identified stress levels and stressful factors of nurses working in oncology outpatient units. The study included 40 nurses who worked in outpatient units at the Sanford Roger Maris Cancer Center located in North Dakota. The Nursing Stress Scale (NSS) was used Researchers found that the most stressful factors included workload

#### **2.4.2.4 Interpersonal and Organizational Relationships:**

The stress level might vary among nurses because the stress is an individual experience. Interpersonal conflict is an inevitable part of medical practice and nurses are at the center of interpersonal conflict in the modern healthcare system (Blackall, Simms, & Green, 2009).

An interpersonal conflict is a disagreement between two persons or subgroups of an organization involving significant bitterness and dissatisfaction. Interpersonal conflict usually develops due to altered interpersonal relationship among coworkers or unequal distribution of tasks or lack of understanding of situation by employees. Relationship means being connected or related positively. So, relationship plays significant role in causing, and resolution of conflict in effective way (Romer et al., 2012).

Recently health care organizations have become complex due to lack of resources, communication skills, and work overload. These are subjected to complex interpersonal dynamics among colleagues, and if policies are existing to identify and resolve these, then out come in terms of job satisfaction by employees, and patient satisfaction through standard care will be improved (Muslim Shah, 2017).

Perceived organizational support is known as employees' perceptions that their works, efforts and contributions are valued by an organization. Organizational support can help nurses to exhibit a positive attitude, make ethical decisions, increase their commitments,

influence turnover intention, and ultimately decrease the job stress. The sources of stress in this field are the conflicts with co-workers with rate of 10% according to (Ingwu et al, 2018), and the lack of staff support, lack of support from nursing administration with rate 52% (Mehta & Singh, 2014).

A comparative study found that the organization is the source that fulfill the employee needs and indicated that that the both Jordanian and Egyptian nurse perceived very high level of stress and a relatively poor organization support. Unfortunately, with these stresses the nurses didn't find enough organization support from their organization (Khrais et al., 2018).

The Interpersonal relationship at work is harder and carrying out the responsibilities of personal and professional is becoming harder. Highest level of stress was found in a cross-sectional study” was to determine the variables that are positively associated with occupational stress among nurses who work in a critical care setting in Iran found that overall, 71% of Iranian nurses reported feeling stressed. Variables that were highly associated with greater levels of stress included minimal collaboration and working with a supervisor on the unit (Vahedian-Azimi et al., 2019). Also, according to a cross-sectional study was performed at Liaquat University Hospital, Jamshoro from 1st July 2015 to 31st January 2016 to study WRS and its various sources among nurses working at Liaquat university hospital, Jamshoro. among the sources of stress, leading source of stress was facing problems in relations with subordinate medical staff as 51%, emotional distress of patients as 50% and 38% of staff are accountable for the value of the work of other staff level of stress (Panhwae et al., 2019).

Another study was conducted by (Anand&Mejid, 2018). The result of this study was the most source of stress at work place were the conflict with supervisor and nurses with rate (37.03%), lack of support with rate (35%), and conflict with physician with rate (34.1%).

The results of this study yielded similar results compared to studies. Found that the stressful factors were inadequate preparation to care for patients towards the end of life and lack of support from the unit supervisor (Ko & Kiser-Larson, 2016).

In another hand the human factors positively associated with WRS such as unorganized shift schedules, healthcare providers not being present in emergency situations, feelings of incompetence, poor time management, getting criticized from members of the healthcare team, and being overworked (Valizaden et al., 2012).

Some studies pointed out that nurses suffered from stress due to physicians (Milutinovic et al., 2012; Ince, 2014); which lead to increase a conflict between physicians and nurses and stress among nurses. This elevated degree of stress may negatively affect nurses' ability to provide patient care and to take clinical decisions (Kurt et al., 2017). Descriptive and comparative study was conducted by (Kurt et al., 2017) composed of 542 nurses who worked at a Training and Research Hospital and a state hospital under General Directorate of Public Hospitals Union the results of study was nearly one third of nurses had stress because physicians did not come when they were called (Kurt et al., 2017). Dagget et al., (2014) mentioned that a unit increase in mutual understanding at work between nurse and physician would likely decrease job-related stress.

Relations between physicians and nurses are sometimes strained. Physician-nurse conflict, tension, and stress have been thought to be contributing factors in job dissatisfaction and burnout for nurses. Study was conducted by (Alenezi et al., 2018). This study aims to compare the sources and factors of stress among nurses from hospitals and primary health care centers by a cross-sectional study was conducted in five government hospitals and four sectors of primary health care centers in Saudi Arabia, the results were the conflicts with physicians and nurses in primary centers and the lack of support are the major sources of stress.

Conflict with doctors (49%), Conflict with supervisors (52%). where as inadequate emotional preparation (68%), Conflict with peers (53%) as inducing causes of stress that reported by nurses according to descriptive study design was used with explorative research approach, study sample was 100 nurses selected by Convenient sampling technique (Gulavani & Shinde, 2014). poor supervision at working, conflict with patients, high job demands and overtime are cause stress (Chayu & Kreidler, 2011).

The nurse and doctors who have collaborative relationships will have low level of stress, in contrast who have poor relationships with colleagues will have high level of stress (Konstantinos & Christina, 2008). Also, other studies supported these findings of some studies explored that nurses complained about not receiving support from colleagues and therefore experienced stress (Ozen, 2013; Adib-Hajbaghery et al., 2012; Milutinovic et al., 2012; Karchani et al., 2012).

#### **2.4.2.5 Stress, Death and Dying:**

Dealing with the loss of a patient was viewed as one of the most demanding and challenging encounters in clinical practice. Those nurses who are not competent in coping with patient death may be inadequate in supporting dying patients and their family members, and minimize the quality of end-of-life care. A systematic study was found that two resources to deal with death and dying, intrinsic resources and extrinsic resources. The intrinsic resources consisted of setting boundaries, reflection, crying, death beliefs, life and work experience, and daily routines and activity. The extrinsic resources were comprised of talking and being heard, spiritual practices, education and programs, and debriefing (Zheng et al., 2018).

The nurses face challenging the death according to the conditions of occurrence, for example emergency nurses work in a clinical area where treatment measures usually are provided quickly, and they have little time to establish relationships, a qualitative design with an interpretive descriptive study was conducted at emergency department nurses from a large Canadian academic health sciences system, findings revealed that emergency nurses believed the environment made it difficult to care for dying patients and their families because of unpredictability, busyness, noise, lack of privacy, and the need to manage many patients simultaneously. These nurses were also put in the position of caring for the suddenly bereaved family members, which was viewed as an especially challenging aspect of their role (Hogan et al., 2016). A descriptive cross-sectional design in Acute Care Units of University of Nigeria Teaching Hospital, Enugu – Nigeria, result of the study showed that 35% of respondents identified caring with death and dying as a source of stress (Ingwu et al., 2018). Also, a study was conducted among registered nurses work to study of WRS among nurses in India, the highest level of stress occurs in the area of deaths and dying and workload (Vernekar & Shah, 2018).

Stress level is varying according to the unit that nurses working in it. In a cross-sectional study conducted by Ko and Kiser-Larson (2016), it identified stress levels and stressful factors of nurses working in oncology outpatient units. The study included 40 nurses who worked in outpatient units at the Sanford Roger Maris Cancer Center located in North Dakota. Researchers found that the most stressful factors included death and dying

A descriptive study design was used with explorative research approach; study sample was 100 nurses selected by Convenient sampling technique was found that the death and dying

are sources of stress in nursing by 50% (Gulavani&Shinde, 2014). These results were in accordance with Ayad et al., 2014 in a study among Palestinian.

According to survey employed in Gaza- Palestine to study WRS among hospital nurses, using self-administered questionnaire of entire cohort of nurses who were working in 16 hospitals in Gaza, study revealed that the most frequent work-related stressors were; watching a patient suffers and lack of drugs and equipment required for nursing care. Death & dying were the most frequent and severe occupational stressors (AL hajar, 2013).

## **2.5 Consequences of work-related stress on Health Status of Nurses**

Stress have a significant impact on nurse's health which effect on quality of life and their work, including overall well-being, social relationship, and family life. In addition, stress can result in work absences, higher turnover, early retirement, lower productivity, and lower quality of services or products (European Foundation for the Improvement of Living and Working Conditions, 2007). Ahwal&Arora (2015) also agree that occupational stress causes hazardous impacts on nurse's physical, psychological, and emotional wellbeing and their ability to cope.

In recent years, new healthcare technologies, and changing healthcare environments continue to increase personal and work stress among nurses (Jennings, 2007). Stress is considered a normal part of life which is necessary occasionally as a push to increasing functional capacity, but when it is experienced over a prolonged period it becomes detrimental to health leading to a decline in productivity (Salleh, 2008). Problems start to occur when the stress response is inappropriate to the size of the challenge. If not managed, high-stress levels result in high levels of employee dissatisfaction, illness, absenteeism, high turnover, decreased productivity, and as a result, difficulty in providing quality service to clients (Onasoga et al., 2013). The success in delivering quality patient care depends on the efficiency and motivation of the nursing personnel (Al hajjar, 2013).

The stress can affect either positively or negatively. **Positive stress:** refers to the response to stressors in an adaptive way. The response does not affect the overall health of the individual and its duration coincides with the duration of the stimulus. **Negative stress:** refers to the response not in adaptive way. The response intensifies over time and begins to interfere with the worker's health (problems such as insomnia, tachycardia, anxiety and depression (Kung &Chan, 2014).

Nursing is a profession within the health care sector which centers on the care of individuals, families, communities, in order to help them to achieve, preserve or improve the finest health and strengthens the life. Nursing is generally perceived as demanding profession. Along with the increased demand and progress in the nursing profession, stress among the nurses has also increased. Hospital nursing is highly stressful with persistent, unremitting emotional and physical strain that can create unhealthy workplaces for nurses and threatening the quality and safety of patient care. (Tsai &Liu, 2012).

According to the American Institute of Stress, stress is a major factor in up to 80 % of all work- related injuries and 40 % of workplace turnovers (Sarafis et al., 2016). Unhealthy work environments negatively affect the performance of nurses, patient care outcomes and patient safety and cause nurses to become distracted from their profession; several of them even leave their profession, a situation that leads to a decrease in the nursing workforce (Papastavrou et al., 2014). Nurses who perceived their work environment to be good experienced higher job satisfaction and lower rates of burnout syndrome (Copanitsanou et al., 2017). In the same track, according to a cross-sectional and descriptive correlational study to study the effect of nurses work environments on outcomes for both patients and nurses was found the Patients who were hospitalized in units with good work environments for the nurses were more satisfied with the nursing care than the patients in units with poor work environments. Another a descriptive study was conducted to identify the effects of nursing work environment and job stress on health problems of hospital nurses in general hospital in Gyeongnam found that there is a significant correlation among nursing work environment, job stress, and health problems. In addition, it showed that the nursing work environment and job stress of nurses were factors affecting their health problems. (Eun &Bohyun, 2016).

Prolonged exposure to WRS contributes to high burnout which leads to lower job satisfaction owing to depletion of resources necessary to meet job expectations. As a result of study that majority of the pediatric nurses (84%) are sometimes burning due to their work place. The study concluded that pediatric nurses are exposure to some burdens due to the practice environment. (Hassan, 2015). Quality patient care is negatively associated with nurse stressors such as increased burnout, staff turnover, shift work, long work-hours, continuous change, extreme emotional demands (Watson et al., 2009).

### **2.5.1 Physical Impact:**

Nurses' job is physically demanding and in addition, nurses deal with suffering daily. The most common negative consequences include; physical injuries, headache, back pain, and several types of chronic health problems, in particular (Ingwu et al., 2018). According to Ayed et al. (2014), the researcher found relationship between working stress and physical problems.

Stress has the ability to negatively impact on nurses' lives. It can cause physical conditions, such as headaches, digestive issues, back pain, fatigue and sleep disturbances. Untreated chronic stress, or stress that's constant and lasts over an extended period of time, can result in high blood pressure or a weakened immune system. A study was conducted by Azma et al. (2015) to evaluate the relationship between musculoskeletal discomforts and occupational stressors among nurses. In this cross-sectional study, 144 nurses in one of the main referral hospitals of Tehran-Iran were randomly selected and studied. The result of study was, most of nurses reported musculoskeletal discomforts localized in the neck, back, knee and shoulder and the minimal discomforts were in wrist and elbow.

Fatigue can reduce performance and job satisfaction, favoring absence due to sickness, absenteeism, turnover, and job attrition and often induces use of psychotropic drugs (Stimpfel et al., 2015). A descriptive cross-sectional study was conducted to identify sources and perceived effects of work-related stress among nurses working in Acute Care Units of University of Nigeria Teaching Hospital, Enugu – Nigeria were found that the most significant perceived effect of stress on physical health was identified as back pain (68.8%), followed by headache (55%) and fatigue (28.7%) (Ingwu et al., 2018).

The workload effect on physiological health, some nurse expressed rarely being able to eat meals due to felt stressed and over work physically exhausted, and having to work through breaks according to (Mercado &Pham, 2019). Another study, a cross-sectional, correlational, to analyze the relation between the workload and the physiological stress reactions among nurses working at a hospital service at Brazil, the most frequent physiological reactions were back pain, fatigue/exhaustion, stiff neck (Dalri et al., 2014).

A cross-sectional self-administered survey conducted to clarify the association between job stress and the number of physical symptoms among newly certified female nurses of Medical- university-affiliated Hospitals. The physicals symptoms were, fatigability was the most frequent complaint (66.1%), followed by lower back pain (44.7%) (Yoshioka et al.,

2018). Similarly, a cross-sectional study investigated the prevalence and risk factors of work-related musculoskeletal disorders among intensive care nurses in the Hunan Province of China. Low back pain was the most commonly reported as a musculoskeletal disorder with rate (80.1%), followed by neck (78.6%) and shoulder pain (70.4%) (Yang et al., 2019).

When stress starts interfering with your ability to live a normal life for an extended period, it becomes even more dangerous. The longer the stress lasts, the worse it is for both your mind and body may feel confused physically exhausted. A descriptive cross-sectional design. The sample population encompassed 80 nurses working in acute care units (General intensive care unit, newborn ICU, accident and emergency and children emergency room) of the hospital. revealed that 51.2% of the nurses are confused when stressed at work and a significant number of nurses 61.3% reported experiencing physical exhaustion frequently while 28.7% are physically exhausted occasionally from work related stress (Ingwu et al., 2018).

In a study conducted in Riyadh, KSA, in 2 major hospitals: the King Fahad Medical City to study Stress, shift duty, and eating behavior among nurses in Central Saudi Arabia, they found high stressed nurses were more likely to present with abnormal eating habits or style (Almajwal, 2016). Similar findings in the descriptive study conducted to study a hospital shift nurses' experiences and perceptions of influences on making healthy nutritional choices while at work which found that Nursing roles and responsibilities restrict freedom of movement and minimize individual control over dietary practices; the hospital food environment is unhealthy; Free food is currency and influences consumption (Dias et al., 2020).

### **2.5.2 Psychological Impact:**

According to Randy and David (2008), "Stress is the subjective feeling produced by events that are uncontrollable." Constant stress brings about changes in the balance of hormones in the body which may lead to thoughts that make us feel frustrated, angry, nervous, anxious, etc. Nurses remain at the forefront of patient care, the demanding nature of the occupation ex-poses nurses to a higher risk of developing negative psychological adverse effects such as depression, anxiety, and stress. the Prevalence rates of anxiety with rate 41.2%, and stress 41.2% among nurses (Maharaj et al., 2018). On the other hand, another study found positive correlational between anxiety, and night shift which consider a source of WRS and poor sleep quality (Dai et al., 2019).

A hospital-based study: a cross-sectional study conducted to explore if work-associated stress converted into psychological distress among the staff nurses the result of this study were the hospital nurses reported mild (12%) to moderate/severe (77%) levels of job-related stress. According to the studies, present day nurses' value the patient–nurse relationship, but they do not always have the power or opportunity to meet the patients' needs for care (Davey et al., 2019). While a cross-sectional study was conducted among registered nurses working in wards of a tertiary care hospital, Goa where in Expanded Nursing Stress Scale (ENS) was used to assess level and sources of stress among them the results were (59.3%) of nurses experienced moderate. (36.8%) severe, (2.4%) experienced very severe stress (Vernekar & Shah, 2018).

Everyone experiences stress from time to time but prolonged stress lead to negative consequences as prescribed by a study of (Chen et al., 2019); found that the nurse suffering from excessive day sleepless, anxiety, insomnia, and low interest. This study conducted to investigate the prevalence and correlates of excessive daytime sleepiness in a population of hospital nurses in South China as well as the influence on the occurrence of adverse events. Also, the another a descriptive cross-sectional design. The sample population encompassed 80 nurses working in acute care units (General ICU, newborn ICU, accident and emergency and children emergency room) of the hospital, revealed that (51.2%) of the nurses are confused occasionally when stressed at work. Also, (8.8%) of the nurses reported constant worrying frequently while (43.8%) reported worrying occasionally. Also, it was found that (22.5%) of nurses experience increased tension occasionally (Ingwu et al., 2018). while the descriptive a cross-sectional study found that the nurse, they had don't feel comfortable, felt stressed and upset, and experienced lack of sleep and they felt overworked (Mercado & Pham, 2019).

A descriptive cross-sectional design. The sample population encompassed 80 nurses working in acute care units (General ICU, newborn ICU, accident and emergency and children emergency room) of the hospital, revealed that (51.2%) of the nurses are confused occasionally when stressed at work. Also, (8.8%) of the nurses reported constant worrying frequently while (43.8%) reported worrying occasionally. Also, it was found that (22.5%) of nurses experience increased tension occasionally (Ingwu et al., 2018).

A negative working environment may lead to psychological health problems, absenteeism and lost productivity. a cross-sectional study conducted to determine the prevalence and associated risk factors of depression, anxiety and stress among Hong Kong nurses. The

study found that there are positive correlations between job dissatisfaction, disturbance with colleagues, low physical activity levels and sleep problems and WRS. Sleep problems, and a lack of leisure significantly correlated with anxiety. Nurses were more depressed, anxious and stressed than the local general population (Cheung & Yip, 2015). Another study in Gaza found that a high prevalence of psychological distress (63%), depression (59.7%,) among nurses (Al hajjar, 2013).

A descriptive, cross sectional study to explore the WRS sources and its effects on the physical and mental health among Palestinian nurses at North WB cities hospitals was found that highly statistically significant relation between mental problems a (Ayed et al., 2014).

According to Godifay et al. (2018) study was found that Respondents who were dissatisfied with their work 3 times more likely to develop work related stress than respondents who were satisfied with their job, these results similar to results of a cross-sectional study was designed to survey the sources of job stress among nurses in private hospitals in Shiraz from December 2015 to May 2016, they suffer from depression and dissatisfaction in their work (Asadi H et al., 2017).

Quantitative studies examining the prevalence of mental health problems in this population. The purpose of this study was to explore the prevalence of depression, anxiety and stress symptoms and associated factors in vocational college nursing students in Sichuan, China. The prevalence rates of anxiety (41%) and stress symptoms (20%) among vocational college nursing students (Zeng et al., 2019).

A descriptive analytical study was used for conducting the study, a purposive sample composed of 150 nurses working inking Abd El-Aziz Hospital, King Feisal Hospital and Heraa General Hospitals affiliated to Ministry of Health at Makkah Al- Mukramah in KSA, to study the Effects of Work Stress on Health of Nurses Working in Selected Hospitals at Makkah Al-Mukramah, this study revealed that the stress effect on psychological health of nurse such as insomnia (63.6%), nervousness(68%), irritability(32%), anxiety(58%), low self-confidence constitute (50,6%) (El-Nagger, 2014).

Another study, and the purpose of this study was to define the quality of nursing services in relation to a nurse's psychosocial factors (self-esteem, locus of control, and anxiety), job stress, and fatigue. This study targeted 503 nurses currently working at one of six general hospitals in Daejeon city, the data were collected by a self-administered questionnaire,

which was surveyed from April 1 to June 30, 2014. This study found that the situational factors that have strong support by supervisor and co-workers decrease the risk of a low career quality and lead to high self-esteem, locus of control. In contrast, high situational fatigue and overall fatigue increase the risk of a low career quality. According to the results, the quality of nursing services increased when the nurse health condition was satisfying, corresponded to the jobs, self-esteem was high, anxiety was low, support by co-workers was strong, and the overall fatigue was low. Above results suggest that the quality of nursing services of nurses who work at a general hospital has a strong correlation with the psycho-social factors, job stress, and fatigue (Lee et al., 2016).

A cross-sectional study was designed to survey the sources of job stress among nurses in private hospitals in Shiraz from December 2015 to May 2016. The Sources of Work Stress among Nurses in Private Hospitals in Shiraz, because the majority of nursing staff are women in Iran. The result of study was, they suffer from dissatisfaction in their work (Asadi et al., 2016). Similarity a cross-sectional design with a convenience sample to study the Factors associated with compassion satisfaction, burnout, and secondary traumatic stress among Chinese nurses in tertiary hospitals was found that the nurses suffering from poor sleep quality, low job satisfaction (Wang et al., 2020).

### **2.5.3 Cognitive Impact:**

WRS has effect on cognitive health of nurses which effect on their life. Cognitive functioning is a critical component for nurses in the assurance of error prevention, identification and correction when caring for patients. Negative changes in nurses' cognitive and psychosocial functioning can adversely affect nursing care and patient outcomes. (Barbe et al., 2017). According to El-Nagger, 2014 to study the Effects of Work Stress on Health of Nurses revealed that the work stress effect on concentration of nurses with rate 28%.

Atrophy of brain regions, resulting from repeated exposure to stressful conditions, has a cognitive cost. Indeed, working memory, attention, response inhibition and cognitive flexibility have all been found to be impaired by stress (Girotti et al., 2017). At work, impairments in the brain lead to reduce the ability to concentrate, control our impulses, remember and plan. performance. A descriptive correlational study implemented to identify negative changes in nurses' cognitive and psychosocial functioning. The findings found that perceived stress and subjective concerns about cognitive function were associated with greater impairment of work function. stress reduction in nurses should be a

high priority as a potential intervention to promote optimal functioning of nurses providing direct patient care. Healthcare institutions should integrate individual and institutional strategies to reduce factors contributing to workplace stress (Barbe et al., 2017).

The shift work has negative impact on cognitive health status of nurses which lead to inability to focus in work, Poor judgment and forgetfulness and disorganization. A cross-sectional descriptive study design was used to study the neurocognitive function between shift nurses and non-shift nurses they found achieved significantly lower scores on verbal memory, processing speed, and reaction time (Jin et al., 2017). Similar study found that the nurses had cognitive stress symptoms, including problems in concentrating, deciding, memorizing (Elfering et al., 2017).

#### **2.5.4 Social Impact:**

Ability to form meaningful relationships with other people and interact in healthy, positive ways. The lack of supportive relationships or poor relationships with peers, colleagues and superiors are also potential sources of stress, leading to low trust and low interest in problem solving relationships at hospital can be classified into relationships with superiors, colleagues, subordinates, patients and others that directly or indirectly impact the nurses at the hospital (Khamisa et al., 2013).

A study was conducted to establish the level of stress in nurses working at hospitals in Slovenia and to identify stress-related factors, the study found that the nurses are unable to take time off in lieu after working on weekend and an increased number of workdays on holidays which effect on the social relationship especially with their families (Dobnik et al., 2018).

On the other hand, work on weekends and holidays may create stress for the nurses because they often miss social or family activities (Anand&Mejid, 2018). But this factor had no statistical association with WRS which is similar to the findings reported in Ethiopia (Tadesse et al., 2016).

Being the nurse a woman and the balance between the responsibilities of housekeeping and job is a source of strain and pressure because with extra work, being away from social and family life, they suffer from dissatisfaction in their work according to a cross-sectional study was designed to survey the sources of job stress among nurses in private hospitals in Shiraz from December 2015 to May 2016. The Sources of Work Stress among Nurses in

Private Hospitals in Shiraz, because the majority of nursing staff are women in Iran. (Asadi et al., 2017).

Stress is a part and parcel of human lifestyle. Stress is a bodily or mental tension resulting from factors that tend to alter an existent equilibrium. Nursing is generally perceived as demanding profession. Along with the increased demand and progress in the nursing profession, stress among the nurses has also increased. A cross sectional research design was adopted. 200 nurses working in selected tertiary care hospital were selected by using probability simple random sampling technique. This study found that (58%) of nurses find no time to enjoy the games or the leisure activities as identified by (Rawal, Shradha, Pardeshi, 2014). where the nurses have physical exertion and no time for leisure or break time.

Another aspect as important is the time spared by nurses for themselves and their families. However; nurses in general and those working at services in particular undergo stress due to inability to spare time for themselves and their families. According to the findings of the finding of study; that nearly one third of the nurses worked  $\geq 52$  hours weekly proved that the nurses were unable to allocate enough time for themselves and their families (Kurt et al., 2017).

## **2.6 Summery**

This chapter presented the literature review related to stressors of nursing. Nursing has been identified as one of the most stressful professions. The literature defines the WRS and some theories. Also, identifies arrange of common stressors in nursing, associated with the nature of nursing work and working environment. The common sources of stress at work is including shift work, workload, and relations with colleagues and the supervisors, patients and their families, role conflict, low pay. The literature also includes the adverse effect of job stress on health status of nurses which includes the physical, psychological, social and cognitive health status and quality of care.

## **Chapter Three**

### **Materials and Methods**

This chapter illustrates the method of the study to answer the research questions. In this chapter different items were explained: study design, study population, study setting, period of the study, sample and sampling, instruments of the study, validity and reliability, data collection, pilot of study, data analysis data management, ethical consideration.

#### **3.1 Study Design:**

The design of this study is descriptive cross sectional. This design is suitable for the nature of variables included on the study. In the other hand, this design saved time and it is relatively practical and manageable. It was chosen because it enables the researcher to meet the study objectives in a short time.

#### **3.2 Study Setting:**

This study was conducted at the pediatric departments in governmental hospitals in GS. Include 6 hospitals: Nasser, Gaza European, Al-Aqsa, Al Naser, Eldora, Al Rantesy. which include medical, surgical, ICU, and emergency pediatric departments.

#### **3.3 Period of study:**

The study was implemented immediately after the approval of the proposal. A pilot study was conducted in November 2019. The study was conducted between March 2019 and March 2020 in the selected hospitals.

#### **3.4 Study Population:**

The target population of the study consisted of nurses and nurse managers working in pediatric

departments at governmental hospitals in GS during the period of the study. According to MOH reports, the total population was 335.

#### **3.5 Sample and Sampling:**

A total number of 179 nurses were chosen by a systematic random sampling technique from the total population of nurses working in pediatric departments in the governmental hospitals of GS.

### **3.6 Eligibility criteria:**

#### **3.6.1 Inclusion criteria:**

Nurses and nurse managers working in pediatric departments at governmental hospitals in GS during the period of the study were included.

#### **3.6.2 Exclusion Criteria:**

Nurses working as volunteer and nursing students training in the pediatric departments during the period were excluded.

### **3.7 Instruments of the study:**

Self-administer questionnaire (Annex 5) was constructed in line with the reviewed literature and objectives of the study to assess the WRS and health status of nurses in pediatric departments. The questionnaire includes:

**Demographic Part:** the demographic part was including data related to age, gender, marital status, educational level, years of experience in the nursing profession, name of ward, shift working and salary/month.

**Expanded Nursing Stress Scale (ENSS)** developed by French et al. (2000) to measure job stress. ENSS is used to measure the sources and frequency of work-related stress perceived by nurses in the changing health care delivery and nursing work environments. The ENSS consists of an item in line of objectives of study with nine subscales and is ranked on a 4-point Likert scale. the response of the participants was score as 1-never, 2-occasionally, 3-frequently, and 4-always. Score transformation: the highest mean score was 4 and lowest mean score was 1.

**Health Status scale:** developed by researcher according to previous studies to measure health status. it consists of physical, psychological, social and cognitive indicators. The scale consists from an item and is ranked on 5-point Likert scale. The response of the participants was score as 1-never, 2-almost never, 3-some of time, 4-most of time, and 5-almost always. Score transformation: the highest mean score was 5 and the lowest mean score was 1.

### **3.8 Data Collection:**

The data was collected by self-administered questionnaire (Annex 5) which was constructed in line with the reviewed literature and objectives of the study. The researcher explained about the study; its purpose, objectives with respect to confidentiality. A written consent from the participants was obtained prior to the administration of the questionnaire

(annex 4) and they had the right to refuse to participate. The average time for filling the questionnaire was 15 minutes to assess the WRS and health status of nurses in pediatric departments. Data were collected by the researcher herself and the response rate was 100%.

### **3.9 Validity and Reliability of Tools:**

#### **Face of validity:**

The questionnaire was reviewed and validated by experts in academic and health field to determine whether the included items clearly and adequately cover the domains of the content addressed. Content validity include 7 experts (annex 3). The questionnaire was pretested to 20 of sample population to ensure validity and reliability of the questionnaire before commencement of the study. This study tool revised accordingly and internal consistent reliability was statistically computed and Cronbach's alpha over 0.927 obtained which the pilot study is acceptable value for reliability of the tool.

#### **Reliability:**

<b>Item</b>	<b>Value of Cronbach's alpha</b>	<b>Number of items</b>
Nursing Stress Scale	0.927	47
Health Status scale	0.924	44

### **3.10 Pilot study:**

A pilot study was conducted 10% (20) of participants from the study sample before starting the data collection. This was done to test the clarity, point out weaknesses in wording, predict response rate, test the instruments used in the study, determine the real time needed to fill the questionnaire and identify areas of vagueness and to test the reliability, validity, and suitability of the questionnaire. Some modifications were needed to clarify the items. The participants in the pilot sample were included within the study sample.

### **3.11 Data management and Data Analysis:**

The researcher used Excel (Microsoft, Redmond, Wash, USA) and Statistical Package for Social Sciences (SPSS), version 23.0 (SPSS Inc, Chicago, Ill, USA) for statistical analysis. The first stage of data entry was through constructing the entry base and coding of variables, followed by actual data entry. At the analysis stage, data cleaning and data management for the variables of interest were performed. Descriptive analysis including figures, frequency tables, were used to describe the main features of the data. Nurses' responses about the stress statements were recoded into one to four points from never to extremely. Total stress percentage score for each subscale was calculated by the summation of the items in the subscale, then multiply by 100 (over 4\* number of items in the subscale). There are 47 items in the stress subscales and the stress score starts from 47 and finish by 188. Stress level was categorized into three categories (Mild, moderate, and sever). Mild stress if the nurse has a score of 47- 94, moderate stress if the nurse has a score of 95- 141, and sever stress if the nurse has a score of 142- 188.

The health status is derived from the health indicators. The nurses' responses about the indicator's statements were recoded from 1- 5 points; one for never to five points for almost always. Physical health was calculated by summation the responses of the ten physical health indicators, then multiply by 100 over 50. Psychological health was calculated by summation of the responses about the seventeen psychological health indicators, then multiply by 100 over 85. Social health was calculated by summation of the responses about ten social health indicators, then multiply by 100 over 45. Cognitive health was calculated by summation the responses about the ten cognitive health indicators, then multiply by 100 over 40. Pearson correlation coefficient test was used to examine the correlation between the stress subscales and the health status. ANOVA test was used to examine the relationship between the level stress and score of health indicators. Chi square test was used to examine the relationship between the stress level and demographic variables. Cramer's v value was used in case of violation of assumptions of chi square test (one or more cell has expected count less than 5). Confidence interval considered at 95% and p-value < 0.05 is statistically significant.

### **3.12 Ethical Administrative:**

- An official letter of approval to conduct the study was obtained from the Helsinki committee (annex 2).
- Permission to conduct the study was obtained from (MOH) (annex 1).
- A written consent from the participants was obtained prior to the administration of the questionnaire (annex 4) and that they have the right to refuse to participate. Also, the participants were informed that the data collection was in confidentiality and would be use for scientific purposes.
- Participants were assured of the confidentiality of the results.

## Chapter Four

### Results and Discussion

#### Introduction

This chapter illustrates the results of statistical analysis of data, including descriptive analysis that presents the sociodemographic characteristics of study sample, frequency and percentage distribution of items related to stress subscales. Then, distribution of health status (physical, psychological, social, and cognitive) were demonstrated. Further, inferential analysis was performed to achieve the study objectives.

#### 4.1 Sociodemographic characteristic of study sample

The study population consisted of 179 of pediatric nurses was selected from six hospitals. The participants were selected by systematic random sample from selected pediatric hospitals.

**Table (4.1): sociodemographic charactristic of study sample**

<b>Variable n=179</b>	<b>No.</b>	<b>%</b>
Gender		
<b>Male</b>	75	41.9
<b>Female</b>	104	58.1
Age		
<40 years	145	81.0
≥40 years a	34	19.0
Marital status		
Single	24	13.4
Married	155	86.6
Qualifications		
Diploma	32	17.9
Bachelor	133	74.3
Master	14	7.8
Experience		
<10 years	95	53.1
≥10 years	84	46.9
Salary		
<2000NIS	152	84.9
≥2000NIS	27	15.1

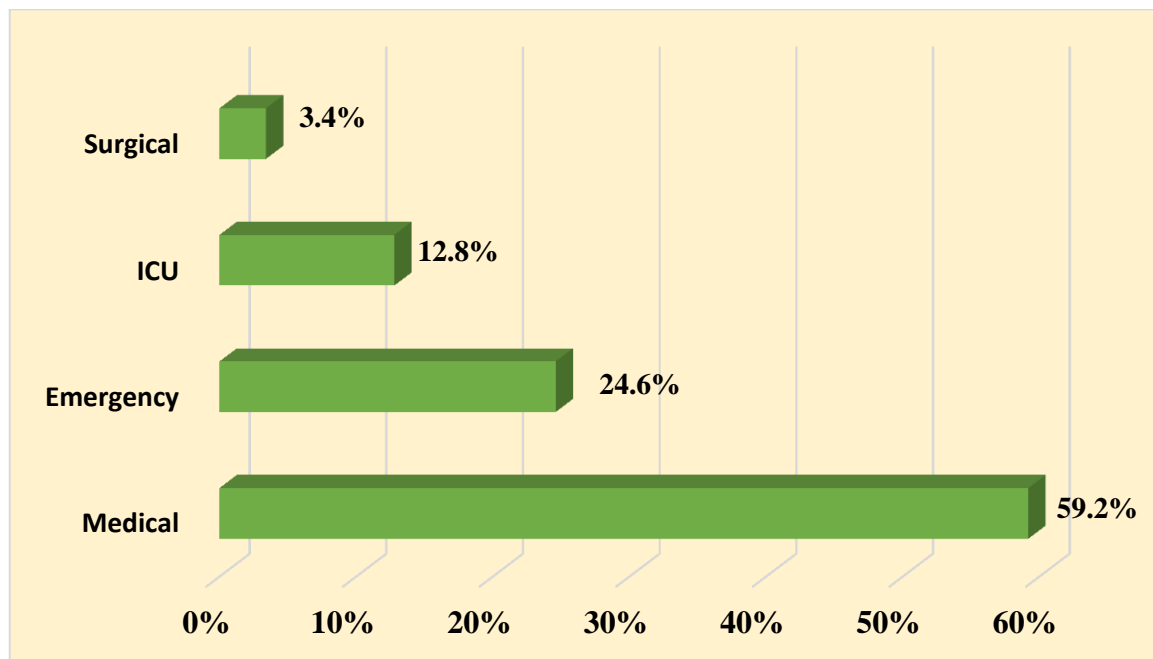
Table (4.1) shows sociodemographic characteristics of study participants. In this study, slightly less than 42% of nurses were males and approximately 58% were females, and this finding was disagreed with study done by Asadi et al. (2017) which revealed that the participants were male (51%) and (49%) were females.

In this present study, the majority of participants (81%) who are less than 40 years old and this result was consistent with the findings of the study carried out by Ingwu et al. (2018). Also, the majority of nurses were married (86.6%), this finding in our study were consistent with the finding of the study conducted by Duff et al. (2015), who revealed that most of the nurses were married. Similarity, this finding was in accordance with findings of study conducted by Vernekar & Shah (2018), which revealed that usually nurses who complained from job stresses (67%) were married.

The results of this study revealed that most of participants have a bachelor degree (74.3%) which agree with a study conducted by Duff et al. (2015) who revealed that the most of participants were staff nurses (78/74.3%) and it was similar to these of a study conducted by Tajvar et al. (2015) that reveled the majority of the nurses had Bachelor's degrees. Approximately More than half (53.1%) have less than 10 years of experience, this result was in accordance with result of study carried out by (Vernekar & Shah, 2018) that (44.7%) had experience of less than 10 years in nursing profession.

In this current study, the majority of them (84.9%) have a salary less than 2000NIS. According to previous studies the employee not happy with low income. Person who earning a high salary feels motivated to do a good job, because the salary brings him a feeling of security, allows him to feel accomplished and gives high level of job satisfaction (Rajeswari & Sreelekha, 2016).

#### 4.1.1 Distribution of study participants according to working departments



**Figure (4.1) distribution of study participants by their working departments**

Figure (4.1) demonstrates the participants according to their departments. Approximately, more than half of nurses (59%) are working at the medical department. Emergency department constitutes of (24.6%). ICU and surgical departments constitute of 12.8%, and 3.4% respectively. The findings of this study yielded different results in compared to similar study It was found that the approximately of participants were (42%) of nurses worked in ICU/emergency compered to nurses worked in medicine and surgery department (15% each) according to study conducted by (Davey et al., 2019). From the researcher view, the approximately of participants in this present study were worked in medical department and the pediatric medical departments at GS are the major.

## 4.2 Frequency and Percentage of Factors Associated with Stress

### 4.2.1 Stress Associated with Uncertainty Concerning Treatment

**Table (4.2): frequency and percentage of distribution of items in subscale 1 (stress associated with uncertainty concerning treatment)**

<b>Subscale Stress associated with uncertainty concerning treatment</b>	<b>Never Stressful n (%)</b>	<b>Occasional stressful n (%)</b>	<b>Frequent stressful n (%)</b>	<b>Extremely stressful n (%)</b>	<b>SD</b>	<b>Mean</b>	<b>Mean %</b>
Physician not being in emergency situation	1 (0.6)	34 (19)	40 (22.3)	104 (58.1)	0.81	3.4	85
A physician ordering what appears to be inappropriate treatments for a patient	7 (3.9)	64 (35.8)	67 (37.4)	41 (22.9)	0.84	2.8	70
Fear of making a mistake in treating a patient	15 (8.4)	57 (31.8)	61 (34.1)	46 (25.7)	0.93	2.8	70
Uncertainty regarding the operation and functioning of specialized equipment	17 (9.5)	66 (36.9)	64 (35.8)	32 (17.9)	0.89	2.6	65
Inadequate information from physician regarding the medical condition of the patient	9 (5)	76 (42.5)	71 (39.7)	23 (12.8)	0.77	2.6	65
Not knowing what a patient or family of patient ought to be told about a patient condition and its treatment	16 (8.9)	76 (42.5)	56 (31.3)	31 (17.3)	0.88	2.6	65
Being in charge with inadequate experience	33 (18.4)	68 (38)	54 (30.2)	24 (13.4)	0.94	2.4	60
Feeling inadequate trained for what I have to do	33 (18.4)	71 (39.7)	52 (29.1)	23 (12.8)	0.93	2.4	60
<b>Total</b>					<b>0.30</b>	<b>2.7</b>	<b>67.5</b>

Table (4.2) shows the mean scores for the items of stress associated with uncertainty concerning treatment. The mean score for these subscales is 2.7, and the percentage mean score is (67.5%) with SD 0.30. Majority of participants (85%) reported that the Physician

not being in emergency situation and (70%) for physician ordering what appears to be inappropriate treatments for a patient” and “fear of making a mistake in treating a patient”. The nurses also responded approximately (65%) for each; regarding to uncertainly regarding the operation and functioning of specialized equipment, inadequate information from physician regarding the medical condition of the patient and not knowing what a patient or family of patient ought to be told about a patient condition and its treatment. These results of the present study are consistent with the findings of study done by (Alenezi et al., 2018; by Anand&Mejid, 2018; Gulavani & Shinde, 2014). And the same findings are similar to results of the study done by (LeTourneau, 2004). Only (60%) for “being in charge with inadequate experience” This result agrees with results of study done by (Vernekar &Shah, 2018) that reveled the majority of the nurses felt work under lots of pressure to take charge when felling inadequate experience. The same score for “felling inadequate trained for what I have to do. Similarity of these findings in accordance with other study carried out by Ko & Kiser-Larson, (2016); who found felling of inadequate training contribute to stress. At this time their lack of knowledge and experience frustrated them as they felt were not able to give inadequate information's to patients.

#### 4.2.2 stress associated with patients and families

**Table (4.3): frequency and distribution of items in subscale 2 (stress associated with patients and families)**

<b>Subscale Stress associated with dealing of patients and their families</b>	<b>Never Stressful n (%)</b>	<b>Occasional stressful n (%)</b>	<b>Frequent stressful n (%)</b>	<b>extremely stressful n (%)</b>	<b>SD</b>	<b>mean</b>	<b>mean%</b>
Having to deal with abusive patients	6 (3.4)	49 (27.4)	59 (33)	65 (36.3)	0.88	3.0	75
Having to deal with abuse from patients' families	12 (6.7)	40 (22.3)	65 (36.3)	62 (34.6)	0.92	3.0	75
Being blamed for any things that goes wrong	3 (1.7)	56 (31.3)	76 (42.5)	44 (24.6)	0.79	2.9	72.5
Having to deal with violent patients	14 (7.8)	49 (27.4)	60 (33.5)	56 (31.3)	0.94	2.9	72.5
Patients families making unreasonable demands	7 (3.9)	61 (34.1)	66 (36.9)	45 (25.1)	0.85	2.8	70
Patients making unreasonable demands	6 (3.4)	66 (36.9)	65 (36.3)	42 (23.5)	0.84	2.8	70
Not knowing whether patients' families will report you for inadequate care	17 (9.5)	58 (32.4)	72 (40.2)	32 (17.9)	0.88	2.7	67.5
Being that one has to deal with patients' families	31 (17.3)	43 (24)	65 (36.3)	40 (22.3)	1.02	2.6	65
<b>Total</b>					<b>0.29</b>	<b>2.8</b>	<b>70.0</b>

**Table (4.3)** shows the distribution of nurses' responses about the "Stress associated with dealing of patients and their families". The total mean score is 2.8 and the percentage mean score is 70.0%. In particular (75%) of participants reported that when having to deal with abusive patients" this result is consistent with the result of study conducted by (Vahedian-Azimi et al., 2019). Also, the same mean score is for the item "having to deal with abuse from patients' families. This result in line with study done by (Mealer et al., 2012). He's found that the abusive behavior toward nurses by patients' families are contribute to stress. Similarly, the findings of this present study were in accordance with other study carried out by (Gulavani &Shind, 2014) that revealed that dealing with patients and families was found to be major (48%) contributory factor of stress. Also, the same findings were found in result of study was done by (Adib-Hajbaghery, 2007). Found in a study, the stressful events that was the staff nurses reported were; the mistrust of the patients and their

relatives and arguing with them, also, the tolerating abuse and insult,” and “ingratitude of some of the patients and their families. May related to negative attitudes of patients or their families toward nurses (Kurt et al., 2017). The stress is produced by such causes that nurses are continually in contact with patients, their hospital attendants as well as visitors; there are problems in coordination and patient relatives insist on visiting patients out of visiting hours. In the same track; some studies reported that inability to cope with wishes of patients and their relatives causes stress among nurses too as described in the study. Also; approximately (72.5%) for two items “being blamed for any things that goes wrong” and “having to deal with violent patients”. May related to the increasing awareness of patients of their medical rights in recent years, and their increasing distrust of medical institutions may have been major causes of such abuse and violence according to (Kasia et al., 2018). In this current study approximately (70%) was for the patient's families making unreasonable demands. This is in line with result of the study carried out by (Vahedian-Azimi et al., 2019). In addition, only (67.5%) for not knowing whether patients' families will report you for inadequate care.

### 4.2.3 Stress associated with workload

**Table (4.4): frequency and percentage distribution of items in subscale 3 (stress associated with workload)**

Scale stress associated with workload	Never Stressful n (%)	Occasional stressful n (%)	Frequent stressful n (%)	extremely stressful n (%)	SD	Mean	mean%
Not enough staff to cover the unit	0 (0)	23 (12.8)	59 (33)	97 (54.2)	0.71	3.4	85
Not enough time to respond to the needs of patient's families	8 (4.5)	29 (16.2)	73 (40.8)	69 (38.5)	0.84	3.1	77.5
Having to work through breaks	2 (1.1)	41 (22.9)	68 (38)	68 (38)	0.80	3.1	77.5
Unpredictable staffing and scheduling	12 (6.7)	44 (24.6)	61 (34.1)	62 (34.6)	0.93	3.0	75
Having to make decision under pressures	5 (2.8)	40 (22.3)	79 (44.1)	55 (30.7)	0.80	3.0	75
Too many non-nursing tasks required, such as clerical work	14 (7.8)	39 (21.8)	74 (41.3)	52 (29.1)	0.90	2.9	72.5
Not enough time to provide emotional support to the patient	17 (9.5)	44 (24.6)	71 (39.7)	47 (26.3)	0.93	2.8	70
Not enough time to complete all of my nursing tasks	10 (5.6)	55 (30.7)	68 (38)	46 (25.7)	0.88	2.8	70
Total					22.9	3.0	75.0

**Table (4.4)** shows the nurses' responses about "stress associated with workload". Approximately (75%) of nurses in this study reported that the workload was a common source of stress. Total mean score is 3 with SD 0.20. These findings of this study were in line with results of the studies carried out by (Panhwar et al., 2019; Sharma et al., 2014; Ingwu et al., 2018; Anand, Mejid, 2018; Ko & Kiser-Larson 2016). They revealed that the workload is a source of WRS. Majority of participants (85%) reported that not enough staff to cover the unit as a factor that increase workload. This result of the present study was in line with the results of the other studies carried out by (Danjin et al., 2016; ICN, 2015; Alhajar, 2013; Al-nems et al., 2004). Also, approximately (77.5%) for the item "not enough time to respond to the needs of patient's families" and for the having to work through breaks". In this present study approximately (75%) of the nurses reported "unpredictable staffing and scheduling" and "having to make decision under pressures". The findings of these items are in line with study carried out by Mehta & Singh, (2014) who

found that the nurse having to work through breaks, and not enough time to complete all nursing tasks which causing stress in nursing job. Similar results were in study conducted by Al hajjar, (2014) who found that the unpredictable staffing and scheduling increase the workload. Also, (72.5%) for the item “too many non-nursing tasks required, such as clerical work”. Finally, only (70%) for the two items “not enough time to provide emotional support to the patient”. In addition, for the other item “not enough time to complete all of my nursing tasks” this result is consistent with study carried out by (Ko & Kiser-Larson, 2016; Mehta & Singh, (2014) who found the lack of time for care can contribute to stress. From the view of researcher, the nurses are experiencing higher workloads may due to increased demands of patients for nurses, inadequate supply of nurses, reduced staffing and increased overtime. Study suggested that workload is negatively associated with several indices of psychological, physical well-being, and affective organizational commitment, and is positively associated with turnover intention and absenteeism (Bowling et al., 2015).

#### 4.2.4 Stress associated with conflict with physicians

**Table (4.5): frequency and percentage distribution of items in subscale 4 (stress associated with conflict with physicians)**

Scale Stress associated with conflict with physicians	Never Stressful n (%)	Occasional stressful n (%)	Frequent stressful n (%)	extremely stressful n (%)	SD	mean	mean%
Making a decision concerning a patient when the physician is unavailable	10 (5.6)	36 (20.1)	83 (46.4)	50 (27.9)	0.84	3.0	75
Having to organize doctors work	15 (8.4)	51 (28.5)	55 (30.7)	58 (32.4)	0.97	2.9	72.5
Conflict with a physician	13 (7.3)	54 (30.2)	70 (39.1)	42 (23.5)	0.89	2.8	70
Criticism by a physician	15 (8.4)	61 (34.1)	65 (36.3)	38 (21.2)	0.90	2.7	67.5
Disagreement concerning the treatment of patients	17 (9.5)	65 (36.3)	64 (35.8)	33 (18.4)	0.89	2.6	65
Total					0.16	2.8	70

**Table (4.5)** shows the distribution of nurses' responses about "Stress associated with conflict with physicians". The total mean score is 2.8 and the percentage mean score is (70%) standard deviation 0.16. Approximately (75%) is for the item "Making a decision concerning a patient when the physician is unavailable", this result was agreed with result of study was done by (Kurt et al., 2017). That found nearly one third of nurses had stress because physicians did not come when they were called. Also, approximately (72.5%) is for "having to organize doctors work" and (70% and 67.5%) for the Conflict with a physician and for the criticism by a physician respectively. This results in line with study were done by (Anand&Mejid, 2018; Alenezi et al., 2018; Ince, 2014; Milutinovic et al., 2012; and Valizaden et al., 2012). From the researcher point of view may related to take decisions by nurses when the doctor is unavailable which make the nurse felling incompetent or fearing from criticism. So, it's important to a unit increase in mutual understanding at work between nurse and physician would likely decrease job-related stress. Finally, only (65%) for disagreement concerning the treatment of patients.

#### 4.2.5 Stress associated with conflict with supervisors

**Table (4.6): frequency and percentage distribution of items in subscale 5 (stress associated with supervisors)**

Scale Stress associated with conflict with supervisors	Never Stressful n (%)	Occasional stressful n (%)	Frequent stressful n (%)	extremely stressful n (%)	SD	mean	mean%
Being held accountable for things over which I have no control	9(5)	34(19)	64(35.8)	72(40.2)	0.89	3.1	77.5
Lack of support from other health care administrators	11(6.1)	45(25.1)	79(44.1)	44(24.6)	0.85	2.9	72.5
Lack of support from immediate supervisors	11(6.1)	50(27.9)	70(39.1)	48(26.8)	0.88	2.9	72.5
Criticism by a supervisor	12(6.7)	48(26.8)	67(37.4)	52(29.1)	0.90	2.9	72.5
Lack of support by nursing administrators	10(5.6)	47(26.3)	65(36.3)	57(31.8)	0.90	2.9	72.5
Criticism by nursing administrations	17(9.5)	40(22.3)	68(38)	54(30.2)	0.95	2.9	72.5
Conflict with supervisors	21(11.7)	56(31.3)	59(33)	43(24)	0.97	2.7	67.5
Total					0.12	2.9	72.5

**Table (4.6)** shows the distribution of nurses' responses about the "Stress associated with conflict with supervisors". The total mean score is 2.9 and the percentage mean score is (72.5%), SD (0.12). Approximately, (77.5%) of participants reported that being held accountable for things over which I have no control was contribute to increase conflict with supervisors. This result of the current study was in line with study carried out by (Panhwar et al., 2019). That found the staff are accountable for things related to work which consider a source of stress.

The other items associated with conflict with supervisors approximately (72.5%) of participants reported that the lack of support from other health care administrators, lack of support from immediate supervisors, criticism by a supervisor and nursing administrations, and lack of support by nursing administrators were contribute to stress. These findings were in line with study carried out by (Anand&Mejid, 2018) that revealed that the most source of stress at work place was the lack of supervisors' support. Similarity of these findings were in accordance with studies done by (Ingwu et al, 2018; Khrais et al., 2018; Vahedian-Azimi et al., 2019; Mehta &Singh, 2014). They revealed the lack of immediate supervisors' support, lack of support from nursing administration are the major sources of WRS. From the view of the researcher, the organization is the source of fulfillment of employee needs and support. (67.5%) is for conflict with supervisors. This result was consistent with the results of study carried out by (Gulavani & Shinde, 2014). Similarity of these findings were in line with study carried by (Anand&Mejid, 2018) that revealed that the most source of stress at work place were the conflict with supervisors. Organizational support can help nurses to exhibit a positive attitude, increase their commitments, influence turnover intention, and ultimately decrease the job stress.

#### 4.2.6 Stress associated with conflicts with peers

**Table (4.7): Frequency and percentage distribution of items in subscale 6 (stress associated with conflict with peers)**

Scale Stress associated with conflicts with peers	Never Stressful n (%)	Occasional stressful n (%)	Frequent stressful n (%)	extremely stressful n (%)	SD	Mean	mean%
Difficulty in working with particular nurse inside of immediate work setting	12 (6.7)	52 (29.1)	64 (35.8)	51 (28.5)	0.91	2.9	72.5
Lack of an opportunity to express to other personnel on the unit my negative feelings toward patients	17 (9.5)	61 (34.1)	68 (38)	33 (18.4)	0.89	2.7	67.5
lack of opportunity to talk openly with other personnel about problems in the work setting	18 (10.1)	69 (38.5)	66 (36.9)	26 (14.5)	0.86	2.6	65
Lack of opportunity to share experiences and feelings with other personnel in the work setting	8 (4.5)	76 (42.5)	73 (40.8)	22 (12.3)	0.76	2.6	65
Difficult in working with opposite sex	21 (11.7)	64 (35.8)	61 (34.1)	33 (18.4)	0.92	2.6	65
Total					0.13	2.7	67.5

**Table (4.7)** illustrates the distribution of nurses' responses about the Stress associated with conflict with peers. The total mean score is 2.7 and the percentage mean score is (67.5%) with SD 0.13. approximately (72%) of nurses reported the difficulty in working with particular nurse inside of immediate work setting. Also, (67.5%) for lack of an opportunity to express to other personnel on the unit my negative feelings toward patients. This is line with study carried out by (Gulavani &Shinde, 2014; Konstantinos &Christina, 2008). Only (65%) reported the lack of opportunity to talk openly with other personnel about problems in the work setting, lack of opportunity to share experiences and feelings with other

personnel in the work setting, and difficult in working with opposite sex were sources of WRS. Conflict usually develops due to altered interpersonal relationship among coworkers or unequal distribution of tasks or lack of understanding of situation by employees.

#### 4.2.7 Stress associated with death and dying

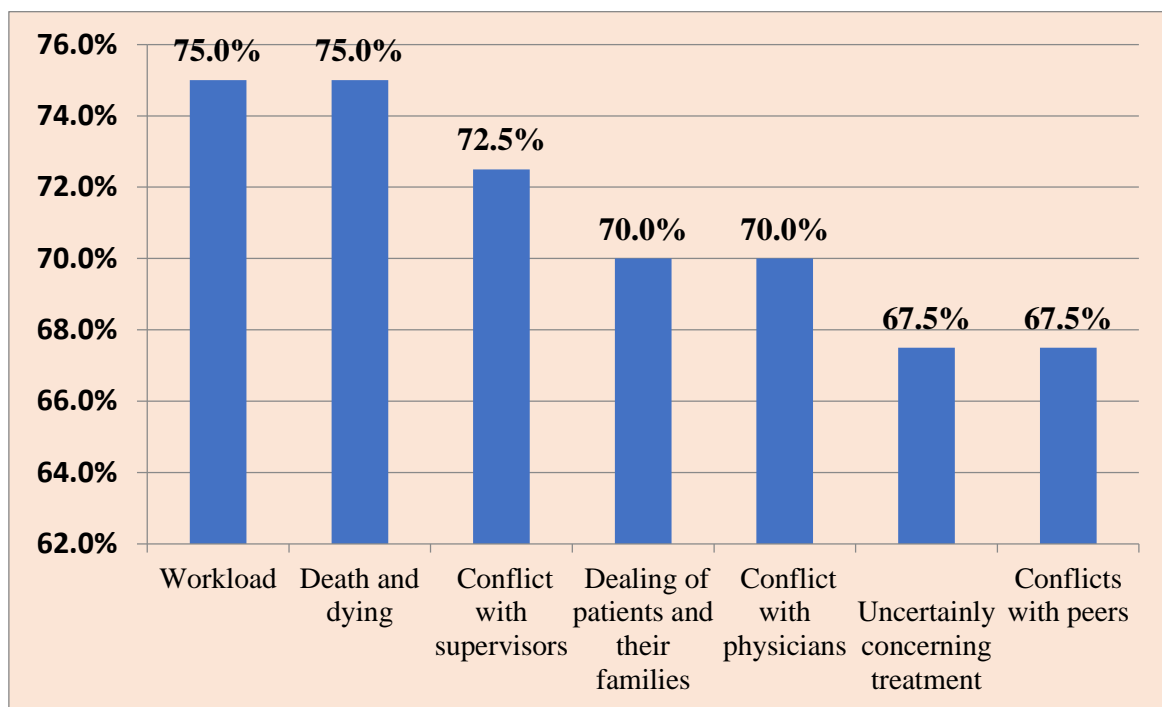
**Table (4.8): Frequency and percentage distribution of items in subscale 7 (stress associated with death and dying)**

Scale Stress associated with death and dying	Never Stressful n (%)	Occasional stressful n (%)	Frequent stressful n (%)	extremely stressful n (%)	SD	mean	mean%
Watching a patient suffer	6 (3.4)	32 (17.9)	52 (29.1)	89 (49.7)	0.87	3.3	82.5
The death of a patient with whom you developed a close relationship	8 (4.5)	47 (26.3)	65 (36.3)	59 (33)	0.88	3.0	75
The death of a patient	8 (4.5)	38 (21.2)	71 (39.7)	62 (34.6)	0.86	3.0	75
Listening or talking to a patient about his/her approaching death	10 (5.6)	54 (30.2)	61 (34.1)	54 (30.2)	0.90	2.9	72.5
Feeling helpless in the case of a patient who fails to improve	7 (3.9)	62 (34.6)	62 (34.6)	48 (26.8)	0.87	2.8	70
Performing procedures that patients experience as painful	13 (7.3)	66 (36.9)	67 (37.4)	31 (17.3)	0.85	2.7	67.5
<b>Total</b>					<b>0.21</b>	<b>3.0</b>	<b>75</b>

**Table (4.8)** shows the distribution of nurses' responses about the "Stress associated with death and dying". In the present study the stress associated with death and dying represented (75%) with SD 0.21. Majority (82.5%) of participants in this subscale reported that watching a patient suffer was contribute to stress. Approximately (67.5%) of participants reported the performing procedures that painful to patients consider stress to the nurses. These findings were consistent with results of study conducted by ((Ingwu et al., 2018; Vernekar & Shah, 2018; Ko&Kiser-Larson, 2016; Hogan et al., 2016; Ayad et al., 2014; and Gulavani & Shinde, 2014). Similarity of these findings are similar to results of study done by (AL hajar, 2013) who found the most frequent work-related stressors was; watching a patient suffers. Facing the nurse of death and dying patient is a natural part of nurse work but not easy. Nurses have to work with the sick patients every day and

witnessing suffering of the patient daily and sometimes death of the patient they cared for causes stress among them. Maybe related to lack of skills to deal with this situation especially when patient die, the death and dying patients consider challenge to nurse because the patient family become aggressive and abuse. So, the nursing curriculum would adopt and cover strategies for coping with death and dying to make the nurse more skillful to deal with it perfectly.

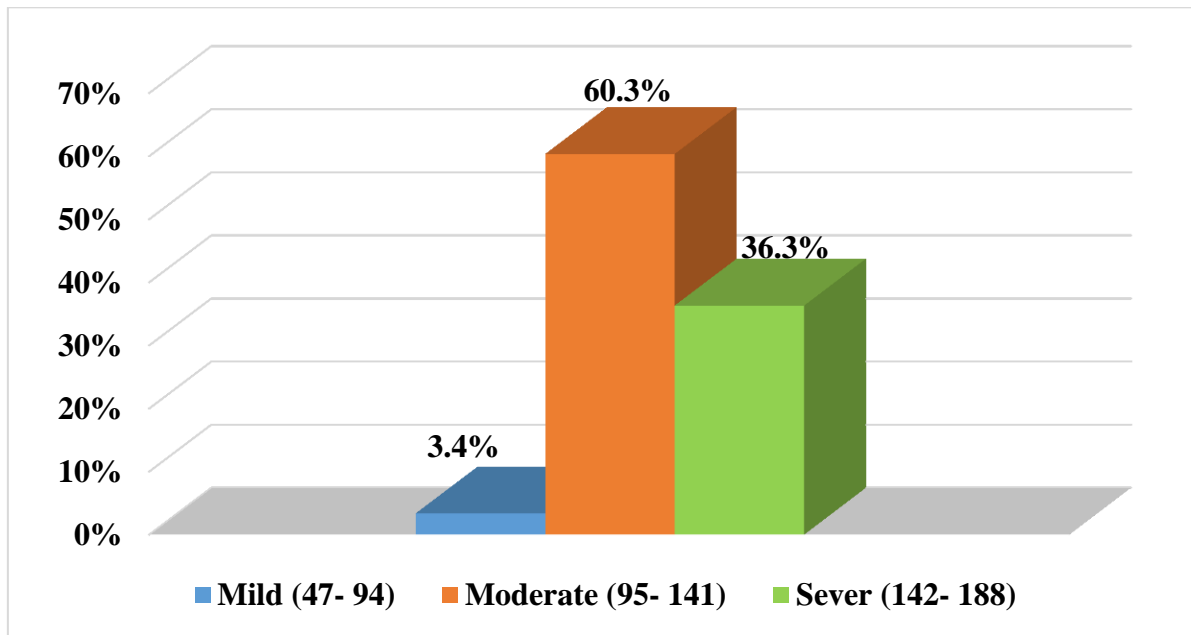
#### **Distribution of the percentage mean score for the nursing subscale**



**Figure 4.2) Distribtion of the percentage mean score for the nursing subscale**

Figure (4.2) shows the percentage mean scores for the nursing stress scale. The highest mean scores in this study were (75%) for workload, and death and dying. The lowest mean score (67.5%) is for the item uncertainly concerning treatment and conflicts with peers. The findings of this current study were consistent with many of findings of other studies like (Panhwar et al., 2019; Ingwu et al., 2018; Vernekar & Shah, 2018; Danjin et al., 2016; Ko & Kiser-Larson, 2016; AL hajar, 2013). They found the workload and death/dying patient were contribute to stress. May related to not enough staff to cover the unit adequately, lack of drugs and equipment required for nursing care and unpredictable staffing and scheduling. Also, the death and dying consider a source of stress. These nurses were put in the position of caring for the suddenly bereaved family members, which was viewed as an especially challenging aspect of their role.

### 4.3 Levels of stress



**Figure (4.2) Distribution of the percentage mean score for the nursing subscale**

**Figure (4.2)** shows the level of stress among participated nurses, the majority of the participants (60.3%) have moderate stress. More than third (36.3%) have severe stress. However, only (3.4%) have mild stress. similarly, the findings of present study were in accordance to (Davey et al., 2019) study. Also, these findings were in consistent with study done by (Vernekar &Shah, 2018). That found (59.3%) of nurses experienced moderate stress. (36.8%) mild, (2.4%) experienced severe stress according to his study. May be related to present day nurses' value the patient–nurse relationship, but they do not always have the power or opportunity to meet the patients' needs for care (Davey et al., 2019).

#### 4.4 Frequency and Percentage Distribution of Study Participants According to Responses Toward Health Status.

**Table (4.9): Frequency and percentage distribution of study participants according to responses toward physical health**

Physical Health	Never n (%)	Almost never n (%)	Some of the time n (%)	Most of the time n (%)	Almost always n (%)	SD	mean	mean%
I have severe or chronic lower back pain.	2(1.1)	7(3.9)	62(34.6)	67(37.4)	41(22.9)	0.89	3.8	76
I get severe or chronic headaches.	9(5)	3(1.7)	68(38)	62(34.6)	37(20.7)	0.99	3.6	72
I have a hard time feeling really relaxed	9(5)	14(7.8)	71(39.7)	62(34.6)	23(12.8)	0.98	3.4	68
My body feels tense all over	12(6.7)	16(8.9)	83(46.4)	50(27.9)	18(10.1)	0.99	3.3	66
I lack physical energy.	11(6.1)	23(12.8)	73(40.8)	51(28.5)	21(11.7)	1.03	3.3	66
I do not really plan my meals for balanced nutrition.	12(6.7)	15(8.4)	77(43)	52(29.1)	23(12.8)	1.03	3.3	66
I get tension or muscle spasms in my face, jaw neck or shoulders	18(10.1)	13(7.3)	80(44.7)	46(25.7)	22(12.3)	1.09	3.2	64
My stomach quivers or feels upset.	33(18.4)	27(15.1)	84(46.9)	21(11.7)	14(7.8)	1.12	2.8	56
Compared to most people, I have a very small or a very large appetite	26(14.5)	50(27.9)	67(37.4)	28(15.6)	8(4.5)	1.05	2.7	54
I get sharp chest pains when I am physically active.	46(25.7)	39(21.8)	60(33.5)	25(14)	9(5)	1.16	2.5	50
Total						0.21	3.2	64

**Table (4.9)** shows the nurses' responses about the physical health. The physical health was (64%) with men score 3.2 and SD 0.21. In particular (76%) and (72%) is for severe or chronic lower back pain, and severe or chronic headaches respectively. The findings were in accordance to study done by (Yang et al., 2019; Yoshioka et al., 2018; Ingwu et al., 2018; Azma et al., 2015; Dalri et al., 2014). On the other, approximately (50%) for chest pain when physically active. From the researcher view, the nurse job is physically demanding, the nurse every day dealing with suffering patients, also the nurse and patient ratio it considers issue in hospitals. The nurse has a lot of tasks and job demanding. So, the

decision makers could be resolve like these issues by increasing the nurse numbers and patient and nurse ratio.

**Table (4.10): Frequency and percentage distributions of study participants according to responses toward psychological health**

Psychological Health	Never n(%)	Almost never n(%)	Some of the time n(%)	Most of the time n(%)	Almost always n(%)	SD	mean	mean%
I worry a lot.	7(3.9)	22(12.3)	74(41.3)	51(28.5)	25(14)	1.00	3.4	68
It is hard for me to relax at home.	8(4.5)	16(8.9)	73(40.8)	61(34.1)	21(11.7)	0.96	3.4	68
I feel very angry inside.	2(1.1)	21(11.7)	85(47.5)	51(28.5)	19(10.6)	0.87	3.4	68
I have found the best way to deal with hassles and problems is to avoid thinking about them	7(3.9)	20(11.2)	82(45.8)	50(27.9)	20(11.2)	0.95	3.3	66
I feel anxious or frightened about problems I can't really describe.	4(2.2)	22(12.3)	83(46.4)	56(31.3)	14(7.8)	0.87	3.3	66
I have Felt constantly under strain	10(5.6)	21(11.7)	75(41.9)	53(29.6)	20(11.2)	1.00	3.3	66
Generally, I am not optimistic about my future	13(7.3)	22(12.3)	81(45.3)	47(26.3)	16(8.9)	1.01	3.2	64
I feel very tired and disinterested in life.	11(6.1)	23(12.8)	78(43.6)	50(27.9)	17(9.5)	1.00	3.2	64
I have lost of sleep	24(13.4)	13(7.3)	78(43.6)	40(22.3)	24(13.4)	1.16	3.2	64
I have Feeling unsatisfied and depressed	18(10.1)	16(8.9)	80(44.7)	35(19.6)	30(16.8)	1.14	3.2	64
I feel extremely sensitive and irritable.	12(6.7)	23(12.8)	112(62.6)	21(11.7)	11(6.1)	0.87	3.0	60
I have felt couldn't overcome difficulties	8(4.5)	33(18.4)	94(52.5)	34(19)	10(5.6)	0.88	3.0	60
I have temper outbursts I cannot control.	21(11.7)	33(18.4)	85(47.5)	30(16.8)	10(5.6)	1.02	2.9	58
I feel like I really can't trust anyone	18(10.1)	34(19)	85(47.5)	27(15.1)	15(8.4)	1.04	2.9	58
When people criticize me, even in friendly constructive way, I feel offended.	34(19)	26(14.5)	89(49.7)	12(6.7)	18(10.1)	1.15	2.7	54
I have feeling of self as worthless person	74(41.3)	30(16.8)	63(35.2)	7(3.9)	5(2.8)	1.08	2.1	42
I have loss of confidence in myself	75(41.9)	34(19)	58(32.4)	7(3.9)	5(2.8)	1.07	2.1	42
Total						0.40	3.0	60

In this study, the psychological health representative (60.0%) with mean score 3 and SD 0.40. The majority of participants in this score had (86%) of angry, worry, and hard to relax as shown in table (4.11). This findings in line with study done by (Mercado &Pham, 2019; Zeng et al., 2019; Ingwu et al.,2018; Maharaj et al., 2018; Cheung &Yip, 2015; El-Nagger, 2014). Only loss of confidence (42%) this result was agreed to result that done by (El-Nagger, 2014). which found that the low self-confidence from causes of WRS. Nurses remain at the forefront of patient care; the demanding nature of the occupation exposes nurses to a higher risk of developing negative psychological adverse effects. The nurses, worry, its related to exhausted nurse due to high demands and workload which make the nurse work under tension, also shift work effect on physical health status of nursing according to previous studies.

**Table (4.11): frequency and percentage distribution of study participants according to responses towards social health**

Social Health	Never n(%)	Almost never n(%)	Some of the time n(%)	Most of the time n(%)	Almost always n(%)	SD	mean	mean%
Working at holidays effects on my family life	4(2.2)	5(2.8)	62(34.6)	51(28.5)	57(31.8)	0.88	3.8	76
Work stress affects my family life	9(5)	9(5)	84(46.9)	53(29.6)	24(13.4)	0.92	3.4	68
I have able to face problems	4(2.2)	17(9.5)	83(46.4)	62(34.6)	13(7.3)	0.79	3.4	68
I find difficulties in social life	6(3.4)	12(6.7)	105(58.7)	43(24)	13(7.3)	0.94	3.3	66
I feel capable of making decisions about things	10(5.6)	23(12.8)	65(36.3)	73(40.8)	8(4.5)	0.85	3.3	66
I have difficulty balancing work with my household responsibilities	13(7.3)	21(11.7)	92(51.4)	39(21.8)	14(7.8)	0.84	3.1	62
I spend more time alone or watching TV than I do talking with my family or friends.	27(15.1)	17(9.5)	69(38.5)	51(28.5)	15(8.4)	0.88	3.1	62
I have able to enjoy 1-to-1 activities	11(6.1)	37(20.7)	89(49.7)	30(16.8)	12(6.7)	1.02	3.0	60
Overall disinterest towards others	34(19)	25(14)	87(48.6)	26(14.5)	7(3.9)	0.88	2.7	54
Total						0.29	3.2	64

**Table (4.11)** shows distribution of the nurses regarding their responses about the social health status. In this study the social health status was (64.0%) and SD 0.29. The majority of participants reported “Working at holidays effects on my family life with (76%). On the

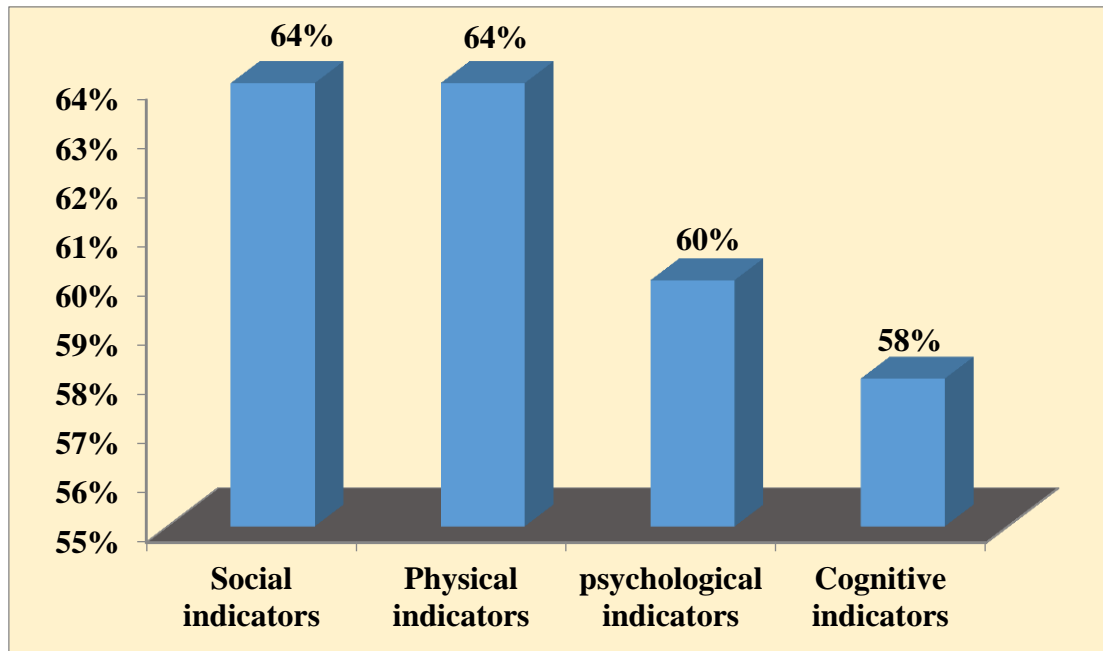
other, approximately (54%) is for the item Overall disinterest towards others. This is line with of study carried out by (Anand&Mejid,2018; Kurt et al., 2017). They found work on weekends and holidays create stress for the nurses because they often miss social or family activities and Dobnik et al.,(2018) found that the nurses are unable to take time off in lieu after working on weekend and an increased number of workdays on holidays which effect on the social relationship especially with their families. Working at holiday effect on social nurse life and wellbeing which felling them away from their family and their child. So, the nurse become frustrated and miss enjoy with times. The nurses need support to improve the social health social.

**Table (4.12): Frequency and percentage distribution of participants according to responses toward cognitive health**

<b>Cognitive Health</b>	<b>Never n(%)</b>	<b>Almost never n(%)</b>	<b>Some of the time n(%)</b>	<b>Most of the time n(%)</b>	<b>Almost always n(%)</b>	<b>SD</b>	<b>Mean</b>	<b>mean%</b>
I have ability to concentrate on what I do	13(7.3)	12(6.7)	63(35.2)	66(36.9)	25(14)	1.05	3.4	68
I have difficulty remembering to do important things	4(2.2)	15(8.4)	89(49.7)	55(30.7)	16(8.9)	0.85	3.4	68
I have difficulty remembering or concentrating	6(3.4)	19(10.6)	89(49.7)	46(25.7)	19(10.6)	0.92	3.3	66
I have difficulty starting and maintaining a conversation	16(8.9)	24(13.4)	93(52)	39(21.8)	7(3.9)	0.93	3.0	60
I have difficulty generally understanding what people say	20(11.2)	31(17.3)	92(51.4)	26(14.5)	10(5.6)	0.99	2.9	58
I find it hard to talk when I get excited.	27(15.1)	31(17.3)	86(48)	28(15.6)	7(3.9)	1.02	2.8	56
I have difficulty in expressing my opinion regarding family issues	35(19.6)	35(19.6)	84(46.9)	23(12.8)	2(1.1)	0.98	2.6	52
because of a problem with my memory. I have difficulty in expressing my opinion regarding family issues. I have ability to concentrate on what I do. I find it hard to talk when I get excited.	41(22.9)	59(33)	57(31.8)	22(12.3)	0(0)	0.97	2.3	46
Total						0.40	2.9	58

**Table (4.12)** shows distribution of the nurses regarding their responses about the cognitive health status. In the present study the cognitive indicators were representative (58.0%) with mean score 2.9 and SD 0.40. Approximately (68%) of the participants have concentration. This finding disagrees with finding of study done by El-Nagger, (2014) to study the Effects of Work Stress on Health of Nurses revealed that the work stress effect on concentration of nurses with rate (28%). Also, approximately (68%) of participants reported that have difficulty in remembering to do important things. This finding was in line with study carried out by (Elfering et al., 2017; Jin et al., 2017). They revealed that the shift work effect on memory, deciding and poor judgment according to study was used to study the neurocognitive function between shift nurses and non-shift nurses. Workload, patients and care demand make the nurse work under tension which lead to loss of concentration in their work and effect on performance negatively. Also, the shift work has negative impact on cognitive health status especially on concentration and memory than non-shift work (Jin et al., 2017). So, the nursing administration take steps to decrease the stress and the stress reduction in nurses should be a high priority as a potential intervention to promote optimal functioning of nurses providing direct patient care. The health care institutions should integrate individual and institutional strategies to reduce factors contributing to workplace stress. Interesting of employees' wellbeing by start to build a picture of how stress is affecting on their live. Only the (46%) of nurses reported because of a problem with my memory, and difficulty in expressing opinions regarding family issues, inability to concentrate on what I do. Similar study found that the nurses had cognitive stress symptoms, including problems in concentrating, deciding, memorizing (Elfering et al., 2017).

## Health Status scores



**Figure (4.3) Health Status Scores**

**Figure (4.3)** demonstrates the health status. The most affected health is the social and physical health as it has the highest score (64%). Psychological health indicators (60%). The lowest affected health is the cognitive health as it has the lowest score (58%). The results of this current study are similar to results of study that carried out by (Ayed et al., 2014); was found relationship between working stress and physical problems. Also was found relationship highly statistically significant relation between and psychological and WRS. While the (Dobnik et al., 2018; Rawal, Shradha, Pardeshi, 2014) found relationship between social health and WRS. The WRS effected on health status of nurses as prescribed by researcher in literature review.

## 4.5 Univariate analysis

**Table (4.13): Relationship between sociodemographic variables and stress level**

Variable	Categories	Stress level			Total	$\chi^2$	p-value
		Mild	Moderate	Sever			
Gender	Male	5(83.3)	49(45.4)	21(32.3)	75(41.9)	4.22	0.027*£
	Female	1(16.7)	59(54.6)	44(67.7)	104(58.1)		
Age	< 40 years	1(.7)	91(62.8)	53(36.6)	145(81)	16.8	0.000*^
	≥ 40 years	5(14.7)	17(50.0)	1(3.3)	34(19)		
Marital status	Single	1(16.7)	17(15.7)	6(9.2)	24(13.4)	1.5	0.46
	Married	5(83.3)	91(84.3)	59(90.8)	155(86.6)		
Qualifications	Diploma	0(0.0)	21(19.4)	11(16.9)	32(17.9)	2.3	0.66
	Bachelor	6(100.0)	78(72.2)	49(75.4)	133(74.3)		
	Master	0(0.0)	9(8.3)	5(7.7)	14(7.8)		
Years of experience	< 10 years	1(16.7)	64(59.3)	30(46.2)	95(53.1)	6.1	0.04*&
	≥ 10 years	5(83.3)	44(40.7)	35(53.8)	84(46.9)		
Salary	< 2000 NIS	2(33.3)	92(85.2)	58(89.2)	152(84.9)	13.4	0.001*#
	≥ 2000 NIS	4(66.7)	16(14.8)	7(10.8)	27(15.1)		
Working shift	Day	5(83.3)	25(23.1)	15(23.1)	45(25.1)	11.1	0.004*\$
	Shift	1(16.7)	83(76.9)	50(76.9)	134(74.9)		
Department	Medical	0(0.0)	64(59.3)	42(64.6)	106(59.2)	20.3	0.002*€
	Emergency	5(83.3)	22(20.4)	17(26.2)	44(24.6)		
	ICU	0(0.0)	18(16.7)	5(7.7)	23(12.8)		
	Surgical	1(16.7)	4(3.7)	1(1.5)	6 (3.4)		

\*Statistically significant, ^Cramer's  $v = 0.307$ ; £ Cramer's  $v = 0.201$ ,&Cramer's  $v = 0.185$ , #Cramer's  $v = 0.24$ , \$ Cramer's  $v = 0.250$ ; €Cramer's  $v = 0.270$ .

**Table (4.13)** shows the relationship between level of stress and some demographic variables. In the current study the high level of stress was observed among female nurses slightly less than (70%) than male nurses (32.3%) with moderate relationship between stress and age as shown in table (4.13). In the current study the findings show the females are more stressful than males ( $\chi^2 = 4.22$ , P-value = 0.027), Cramer's  $v$  value is (0.201) which is a moderate relationship between gender and level of stress. These findings in our study consistent with a study conducted by Godifay et al., (2018). He shows in his study the female was more stress than male. Also, the findings of this present study were similar to other studies (Salilih&Abajobir,2012., al-hajar,2013., Yada et al., 2014., Ayivi-Guédéhoussou, 2016., and Rajeswari&Sreelekha, 2016). The findings of the present study were consistent with a study done by (Vernekar &Shah,2018). Who shows the females were high risk for developing WRS according to his study. This may be related to being the nurse a woman and the balance between the responsibilities of housekeeping and job is a source of strain and pressure because with extra work, being away from social and family life, they suffer from dissatisfaction in their work. Also, the nursing profession is a female dominant in the most countries due to the nurse roles as nurturing, domestic, humble, self-sacrificing.

Regarding age, chi square test reveals that there is a statistically significant association between stress level and age. The participants in the age < 40 years have more stress than those in age of  $\geq 40$  years ( $\chi^2 = 16.8$ , P-value = 0.000), Cramer's v value is 0.307 which shows a strong relationship. In the present study, there is a statistically significant association between stress level and age of nurses. These findings were in accordance with study done by (Alenezi et al., 2018) in Saudi Arabia. Who found that their significant relationship between nurses age and stress. The findings of this present study were in contrast to study done by (Mohite et al., 2014) at Delhi that found there no significant association between occupational stress and age. Also, the Panhwar et al., (2019) found the old staff nurses belong above 30 years have stress with rate (60%) Similarly, a study among nurses in Sri Lanka revealed that high stress levels were found significantly associated with 40-49-year age group and stress (Muraleeswaran et al., 2016). From the researcher view may due to lack of experience of the young ages of nurses to deal with this situation So, they need training to coping with WRS and more skillful.

In the present of study, there is a statistically significant association between the level of stress and years of experiences as shown in table (4.13). The nurses who have 10 years and more had stress than nurses have less than 10 years (P-value = 0.04). These findings in our study consistent with a study conducted by (Godifay et al., 2018) who found that the nurses those who had work experience  $\geq 5$  years, 4.1 times more likely had WRS than those not experienced. These findings in our study were not consistent with study done by (Anand & Mejid, 2018; Rajeswari & Sreelekha, 2016), which found that the nurses having less than 5 years experiences reported stress more than those who were more experienced. From the view of researcher may be related to the expert nurse have more responsibilities and job demands more than less experience.

In the present study, chi square test reveals that there is a statistically significant association between stress level and the salary, the nurses get salary < 2000 NIS were more stress than those get salary  $\geq 2000$  NIS. These findings are consistent with study was conducted by (Sharma et al., 2014). Who found insufficient salary are associated with increased WRS. Similarity of findings were found in other studies, like this study done by (Davey et al., 2019); which revealed approximately (70%) of participants paid inadequate salary. Similarly, in other study, majority of staff nurses were unhappy with pay (61%) according to (Gulavani & Shind, 2014). Also, other studies are in contrast with findings of the present study like studies were made by (Asadi H et al., 2017; Rajeswari, & Sreelekha,

2016; Demerouti, Bakker, Nachreiner, and Schaufeli, 2000). They found the nurse who not happy with the salary received will experience stress especially when the work pressure high. From the researcher view this related to of the low wages that Gaza employees receive, which are less than they deserve and political conditions at Palestine. Inadequate salary effect on equality of care and patients' outcomes. In other hand the motivation of employees will decline toward the work and become frustrated. So, the decisionmakers paying more attention to dealing with this problem to motivate the nurses and improve the living level.

Working shift is another variable affect the level of stress, in the present study, there is a statistically significant association between the level of stress and shift working, the participants who working as a shift having more stress than those working straight day (P-value 0.004). These findings are similar to findings of study was done by (Vahedian et al., 2019; Gupta, 2016). Other studies are consistent with these findings of study was done by (Kim et al., 2013) that found the nurse who work shifts reported moderate level of WRS. Similar findings were found in study done by (Lin H et al., 2014). Who found the nurses who worked rotating shifts tended to experience WRS than those who worked day/non-night shifts. From the view of researcher may be related to effect of shift work negatively on the health and life work balance. The shift work increases the fatigue, accident, injuries and other associated with long work hours. So, it's important to take post duty enough.

In the current study, there is a statistically significant association between stress level and working departments (P- value= 0.001), Cramer's v value is 0.270 which shows a moderate relationship. Similarly, the findings of this study were accordance to study was done by Daggat et al., 2014; Al-hawajreh, 2011). They found relationship between the stress level and working units. The nurses working at the medical departments show more severe stress than those in other departments as shown in table (4.13). These findings in the current study were consistent with results of study was done by (Anand &Mejid, 2018) who found that medical ward was stressful areas of work among nurses. These findings in our study were in contrast to other studies that found the nurses worked in ICU/emergency department suffered from stress compared by those worked in medicine and surgery department an according to study conducted by (Davey et al., 2019). From the view of the researcher may related to magnitude of care and high demands of patients and families in medical departments.

In this study, the findings as shown there no association between the marital status and WRS. These findings were consistent with study conducted by (Najimi et al., 2012). Who found There is no significant relationship between marriage status of nurses with stress. The findings of the current study were in contrast to other studies done by (Rajeswari. H& B. Sreelekha, 2016; Al-Makhaita et al., 2014; Khaqhani Zadeh et al., 2012). They found, there is association between marriage status and job stress of nurses.

In other hand there is no association between stress and qualification as shown in table (4.13). This finding of this study was in line with study done by (Khaqhani Zadeh et al., 2012) and (Najimi et al., 2012), they showed no relation between level of academic education and job stress. This is disagreed with studies were done by (Anand& Mejid, 2018) showed highly significant statistical association.

### **Correlation Matrix Between Stress Subscales and Nurse's Health Status**

**Table (4.14): Correlation Matrix Between Stress and Nurses Health Status**

		<b>Physical indicators score</b>	<b>Psychological indicator score</b>	<b>social indicators score</b>	<b>cognitive indicators score</b>
subscale1 uncertainly treatment	Pearson Correlation	0.290**	0.401**	0.373**	0.249**
	P- value	0.000	0.000	0.000	0.001
subscale2 patients and their families	Pearson Correlation	.374**	.309**	.298**	.323**
	P- value	0.000	0.000	0.000	0.000
subscale3 workload	Pearson Correlation	.419**	0.412**	.398**	.304**
	P- value	0.000	0.000	0.000	0.000
subscale4 conflict with physicians	Pearson Correlation	.306**	.449**	.271**	.336**
	P- value	0.000	0.000	0.000	0.000
subscale5 conflict with supervisors	Pearson Correlation	.345**	.218**	.141	.172*
	P- value	0.000	0.003	0.060	0.021
subscale6 conflict with peers	Pearson Correlation	.424**	.410**	.323**	.324**
	P- value	0.000	0.000	0.000	0.000
subscale7 death and dying	Pearson Correlation	.368**	.292**	.156*	.222**
	P- value	0.000	0.000	0.037	0.003

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

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

These results illustrated in table (4.14) The correlations across subscales between the WRS and health status of nurses are significant, positive, and weak ( $r = 0.156$  to  $r = 0.449$ ). The strongest correlation is between conflict with physicians and psychological health ( $r = 0.449$ ,  $P$ - value = 0.000). This result was accordance with result of study was done by

(Alenezi et al., 2018) he found that Physician-nurse conflict, tension, and stress have been thought to be contributing factors in job dissatisfaction and burnout for nurses. From the view of the researcher, it is important that there to be mutual relations between the nurse and the doctor. Also, should build a relationship of collaboration and mutual respect that can act as a model for others from. Correlation is between Stress associated with death and dying and social health ( $r= 0.156$ ,  $P\text{-value}= 0.037$ ). However, the only scale that has no correlation between the health status and the Stress associated with conflict with supervisors as there is no correlation with the social health indicators ( $r= 0.141$ ,  $P\text{-value}= 0.060$ ).

## Chapter Five

### Summery, Conclusion and Recommendation

#### 5.1 Summary

Nurses experience a considerable amount of stress at workplace due to various causes which has an impact on their work performance and health status of nurses. This study aimed to explore the effect of WRS on health status of nurses in pediatric departments at governmental hospitals in GS. It was a descriptive cross-sectional study; data were collected from nurses who worked at the pediatric departments in governmental hospitals in GS. Include 6 hospitals: Nasser, Gaza European, Al-Aqsa, Al Naser, Eldora, Al Rantesy. Which include medical, surgical, ICU, and emergency pediatric departments. The present study studied the sociodemographic; there relationship between level of stress and some demographic variables. In this current study the females are more stressful than males (P-value= 0.027), Regarding age, chi square test reveals that there is a statistically significant association between stress level and age. The participants in the age <40 years have more stress than those in age of  $\geq 40$  years (P-value= 0.000), also, there is a statistically significant association between the level of stress and years of experiences. The nurses who have 10 years and more had stress than nurses have less than 10 years (P-value= 0.04). In the present study, chi square test reveals that there is a statistically significant association between stress level and the salary the nurses get salary < 2000 NIS were more stress than those get salary  $\geq 2000$  NIS. Also, there is a statistically significant association between the level of stress and shift working, the participants who working as a shift having more stress than those working straight day (P-value 0.004). There is a statistically significant association between stress level and working departments (P-value= 0.001), the medical departments are more stress according to findings of this study. There is no association between the marital status, qualification and WRS.

The main finding of this present study, the workload and death and dying were the most sources of WRS with rate (75%) for each.

The main finding of this present study, the physical and social health were affected by WRS. For physical health the majority of participants reported (75%) lower back pain and (72%) headache. For social health, the majority of participants reported (76%) Working at holidays effects on their family life and stress effect on family life with (68%). Also, the nurses had moderate level of stress according to the present of study.

## **5.2 Conclusion:**

Nurses experience a considerable amount of stress at workplace due to various causes which has an impact on their work performance and health status of nurses. The study concluded that the majority of nurses had moderate level of stress. The workload and death of patient and dying were the most sources of WRS among nurses. The physical and social health status of nurses were affected. So, it's important to understand how stress effects on nurse's health and their life and quality of care. The nurse needs to stress reduction activities by increasing nurse number, scheduling the tasks, coping strategies and additional support especially when dealing with death and dying patients. Also, the role of the manager, nurse educators, administrators to find constructive ways to make the work environment more friendly and pleasurable to reduce the level of stress.

## **5.3 Recommendation:**

According to the results of the current study, the following recommendations are suggested:

- The nursing administrators in hospitals should consider death/dying and workload as major stressors and find strategies to manage nurse's workload and facilitate the comfortable workplace for nurses while dealing with patient's death/dying. The nursing administrators also need to encourage their staff nurses to utilize coping strategies to deal with these situations.
- Workload was found to source of occupational stressors, so efforts should be taken to reduce the impact of stressors by organizational interventions. These interventions include solutions to decreasing workload and reschedule shifts and provide enough staff to cover the unit, providing nurses in proportion with patient numbers and distribute the tasks between the nurses which can reduce the consequences of WRS on health status of nurses.
- Support systems such as counselling services and self-help groups should be made available to nurses, to improve the interpersonal relationships which help the nurses to reduce the stress level.
- Prolonged stress may lead to increased risk of health issues, Attention should be given to what aspects of the job stressors that could be changed and identify practical steps to decrease stress. Ministry of Health would be to offer strategies for employment environments in which nurses can work effectively without negatively affecting their health.

- Organizational support to encourage the conflict in competitive manner and enhancement of nurse performance which reduce the stress.
- Further research is recommended to focus more on various causes of stress in workplace.

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## Annex 1: MOH Approval

State of Palestine  
Ministry of health



دولة فلسطين  
وزارة الصحة

التاريخ: 01/12/2019

رقم المراسلة: 402111

السيد : رامي عيد سليمان العبادله المحترم

مدير عام بالوزارة /الإدارة العامة لتنمية القوى البشرية - /وزارة الصحة

السلام عليكم ،،،

### الموضوع/ تسهيل مهمة الباحثة/ فاطمة شاهين

// التفاصيل

بخصوص الموضوع أعلاه، يرجى تسهيل مهمة الباحثة/ فاطمة أسعد شاهين  
الملتحقة ببرنامج ماجستير التمريض - تخصص تمريض أطفال - جامعة القدس أبوديس في إجراء بحث بعنوان:-  
"Work-Related Stress and Health Status of Nurses Working in Pediatric Departments at  
"Governmental Hospitals in Gaza Strip"  
حيث الباحثة بحاجة لتعبئة استبانة من عدد من الممرضين المقدمين الخدمات الصحية في أقسام الأطفال في  
المستشفيات الحكومية (م. ناصر الطبي، م. غزة الأوروبي، م. الدرة، م. الرنتيسي، م. النصر للأطفال، م. شهداء الأقصى)،  
بما لا يتعارض مع مصلحة العمل وضمن أخلاقيات البحث العلمي، ودون تحمل الوزارة أي أعباء أو مسؤولية.  
وتفضلوا بقبول التحية والتقدير،،،،  
ملاحظة /

● البحث المذكور حصل على موافقة لجنة أخلاقيات البحث الصحي (لجنة هلسنكي)  
تسهيل المهمة الخاص بالدراسة أعلاه صالح لمدة 3 أشهر من تاريخه.

محمد إبراهيم محمد السرساوي

مدير دائرة/الإدارة العامة لتنمية القوى البشرية -



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## Annex 2 Helsinki approval



### المجلس الفلسطيني للبحوث الصحية Palestinian Health Research Council

تعزيز النظام الصحي الفلسطيني من خلال مأسسة استخدام المعلومات البحثية في صنع القرار

Developing the Palestinian health system through institutionalizing the use of information in decision making

#### Helsinki Committee For Ethical Approval

Date: 2019/10/7

Number: PHRC/HC/611/19

Name: Fatma Asad Fayyad

الاسم:

We would like to inform you that the committee had discussed the proposal of your study about:

نفيدكم علماً بأن اللجنة قد ناقشت مقترح دراستكم حول:

#### Work-Related Stress and Health Status of Nurses Working in Pediatric Departments at Governmental Hospitals in Gaza Strip

The committee has decided to approve the above mentioned research. Approval number PHRC/HC/611/19 in its meeting on 2019/10/7

وقد قررت الموافقة على البحث المذكور عاليه بالرقم والتاريخ المذكوران عاليه

#### Signature

Member

Chairman

Member

#### Genral Conditions:-

1. Valid for 2 years from the date of approval.
2. It is necessary to notify the committee of any change in the approved study protocol.
3. The committee appreciates receiving a copy of your final research when completed.

#### Specific Conditions:-



E-Mail: pal.phrc@gmail.com

Gaza - Palestine

غزة - فلسطين  
شارع النصر - مفترق العيون

### **Annex 3: Control panel**

<b>Name</b>	<b>position</b>
Dr. Mohammed Aljerjawy	Palestine Collage of Nursing
Dr. Hamza Abed Aljawad	Al-Quds University
Dr. Yosef Al Jayesh	Islamic University – Gaza
Dr. Samer Al Nawajha	University College of Applied Sciences
Dr. Ashraf Al Jedi	Islamic University – Gaza
Dr. Ahmed Najem	Al-Azhar University- Gaza
Dr. Osama Eliyan	Al-Azhar University- Gaza

## **Annex 4: consent form**

### **Dear participant**

The researcher prepares a study as a prerequisite for obtaining a master's degree in pediatric at Al-Quds University, Faculty of Health Professions. The title is work -related stress on the health status of nurses working in pediatric department in the Gaza Strip. This questionnaire is one of the important aspects of the research. I hope you can answer the questions and provide the researcher with your valuable opinions. Knowing that all information contained in this questionnaire will be used for scientific research purposes and that your answers will be in complete confidentiality and scientific care.

Thank you for your cooperation and good response .....

### **Researcher:**

Fatma Asad Fayyad

## Annex 5: Study Questionnaire

This questionnaire will show how stress effects on different parts of your life, and health status.

<b>Part 1 sociodemographic Data</b>				
Age in year:				
Gender:	a) Male		b) Female	
Marital status:	a) married	b) divorced	c) widow	e) single
Qualification:	a) baccalaureate	b) diploma	c) master	e) PhD
Experience years:				
Salary / month.....NIS				
Work type	a) 3 shift duty		b) straight shift duty	
Ward/ unit	a) medical	b) surgical	c) ICU	d) emergency

**Part 2 Expanded nursing stress scale** (French et al, 2000) consist from items to measure the stressful situation and experiences. Each item required respondents to rate a 4-point Likert scale by ticking on the scale ranging from:

<b>Never Stressful = 1</b>	<b>Occasional stressful = 2</b>
<b>Frequently stressful = 3</b>	<b>Extremely stressful =4</b>

<b>Stress associated with uncertainly concerning treatment</b>				
<b>Items</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
1. Inadequate information from physician regarding the medical condition of the patient				
2. A physician ordering what appears to be inappropriate treatments for a patient				
3. Fear of making a mistake in treating a patient				
4. Physician not being in emergency situation				

5. Felling inadequate trained for what I have to do				
6. Not knowing what a patient or family of patient ought to be told about a patient condition and its treatment				
7. Being in charge with inadequate experience				
8. Uncertainly regarding the operation and functioning of specialized equipment				
<b>Stress associated with dealing of patients and their families</b>				
9. Patients making unreasonable demands				
10. Patients families making unreasonable demands				
11. Being blamed for any things that goes wrong				
12. Being that one has to deal with patients' families				
13. Having to deal with violent patients				
14. Having to deal with abusive patients				
15. Having to deal with abuse from patients' families				
16. Not knowing whether patients' families will report you for inadequate care				
<b>stress associated with workload:</b>				
17. Unpredictable staffing and scheduling				
18. Not enough time to provide emotional support to the patient				
19. Not enough time to complete all of my nursing tasks				
20. Too many non-nursing tasks required, such as clerical work				
21. Not enough staff to cover the unit				
22. Not enough time to respond to the needs of patient's families				
23. Having to work through breaks				
24. Having to make decision under pressures				
<b>Stress associated with conflict with physicians:</b>				

25. Criticism by a physician				
26. Conflict with a physician				
27. Disagreement concerning the treatment of patients				
28. Making a decision concerning a patient when the physician is unavailable				
29. Having to organize doctors work				
<b>Stress associated with conflict with supervisors:</b>				
30. Lack of support from other health care administrators				
31. Conflict with supervisors				
32. Lack of support from immediate supervisors				
33. Criticism by a supervisor				
34. Lack of support by nursing administrators				
35. Being held accountable for things over which I have no control				
36. Criticism by nursing administrations				
<b>Stress associated with conflicts with peers</b>				
37. lack of opportunity to talk openly with other personnel about problems in the work setting				
38. Lack of opportunity to share experiences and feelings with other personnel in the work setting				
39. Lack of an opportunity to express to other personnel on the unit my negative feelings toward patients				
40. Difficulty in working with particular nurse inside of immediate work setting				
41. Difficult in working with opposite sex				
<b>Stress associated with death and dying</b>				
42. Performing procedures that patients experience as painful				
43. Feeling helpless in the case of a patient who fails to improve				

44. Listening or talking to a patient about his/her approaching death				
45. The death of a patient with whom you developed a close relationship				
46. The death of a patient				
47. Watching a patient suffer				

**Part 3 Health Indicators Questionnaire** consist from items to measure the health status,

each item required respondents to rate a 5-point Likert scale **circle the response which best**

**indicates how often you experience each stress indicator** ranging from:

5 -Almost Always	4 -Most of the time	3 -Some of the time
2 -Almost never	1- Never	

Physical Health					
Items	5	4	3	2	1
My body feels tense all over					
I have a hard time feeling really relaxed					
I have severe or chronic lower back pain.					
I get severe or chronic headaches.					
I get tension or muscle spasms in my face, jaw neck or shoulders					
My stomach quivers or feels upset.					
Compared to most people I have a very small or a very large appetite					
I get sharp chest pains when I'm physically active					
I lack physical energy					
I don't really plan my meals for balanced nutrition.					
Psychological Health:					
I have found the best way to deal with hassles and problems is to consciously					

avoid thinking or talking about them.					
I feel anxious or frightened about problems I can't really describe.					
I worry a lot.					
It is hard for me to relax at home.					
I feel very angry inside.					
I have temper outbursts I can't control.					
When people criticize me, even in friendly constructive way, I feel offended.					
I feel extremely sensitive and irritable.					
I feel like I really can't trust anyone.					
Generally, I am not optimistic about my future.					
I feel very tired and disinterested in life.					
I have lost of sleep					
I have Felt constantly under strain					
I have felt couldn't overcome difficulties					
I have Feeling unsatisfied and depressed					
I have feeling of self as worthless person					
I have loss of confidence in myself					
<b>Social Health:</b>					
Overall disinterest towards others					
I have difficulty balancing work with my household responsibilities					
I find difficulties in social life					
I feel capable of making decisions about things					
I have able to enjoy day-to-day activities					
I have able to face problems					

I spend more time alone or watching TV than I do talking with my family or friends.					
Working at holidays effects on my family life					
Work stress affects my family life					
<b>Cognitive Health:</b>					
I have difficulty remembering or concentrating					
I have difficulty remembering to do important things					
I have difficulty generally understanding what people say					
I have difficulty starting and maintaining a conversation					
because of a problem with my memory or concentration, I can't do any activities					
I have difficulty in expressing my opinion regarding family issues					
I have ability to concentrate on what I do					
I find it hard to talk when I get excited.					

عنوان الدراسة: اثر ضغوطات العمل على الحالة الصحية للمرضين العاملين في اقسام الاطفال في المستشفيات الحكومية في قطاع غزة.

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اشراف : د. علي حسن الخطيب

## مقدمة

يعتبر التمريض مهنة من أكثر المهن المجهدة حيث أن المرضين يتعرضون للكثير من المواقف والظروف العصبية التي تسبب في حدوث ضغوطات العمل. يعمل المرضين بشكل مباشر كمقدمي رعاية في المستشفى على مدار أربع وعشرين ساعة في اليوم. مما يجعل المرضين اكثر تميزا عن غيرهم. التعرض للضغوطات الناجمة عن العمل لفترة طويلة له تأثير سلبي على صحة المرضين وخصوصا الصحة الجسدية والنفسية والاجتماعية والادراكية.

## أهداف الدراسة

هو دراسة تأثير ضغوطات العمل علي الصحة الجسدية، النفسية، الاجتماعية والادراكية للمرضين العاملين في اقسام الاطفال في المستشفيات الحكومية في قطاع غزة، وايضا تحديد مستوى والتعرف على مصادر ضغوطات العمل في اقسام الاطفال في المستشفيات الحكومية في قطاع غزة.

## منهجية الدراسة

دراسة وصفية تحليلية لدراسة أثر ضغوطات العمل على الحالة الصحية للمرضين ل 179 ممرض تم اختيارهم بالطريقة العشوائية المنظمة وباستخدام استبيان يتم تعبئته ذاتيا من قبل المرضين العاملين في اقسام الاطفال في قطاع غزة ويتضمن مستشفى ناصر ، غزة الاوروبي، الاقصى، النصر، الدرة، الرنتيسي. أجريت هذه الدراسة في الفترة ما بين مارس 2019 إلى مارس 2020 في المستشفيات المختارة. اعتمد الباحث مقياس الإجهاد الموسع للتمريض لتقييم مستوى ومصادر الضغوطات بين المرضين. كذلك استخدام مقياس الحالة الصحية لتقييم الوضع الصحي للمرضين الذين تشملهم هذه الدراسة.

## النتائج:

- اظهرت النتائج أن (60.3 %) من المرضين يعانون من مستوى معتدل من الضغوطات. (36.3 %) من الضغط الشديد، و (3.4%) من الضغط الخفيف.
- بينت نتائج الدراسة ان من اكثر مصادر الضغوطات بين المرضين والتي حصلت كل منهما على نسبة (75%) وهما اعباء العمل وموت واحتضار المريض.
- بينت نتائج الدراسة ان الحالة البدنية والاجتماعية اكثر تأثرا بضغوطات العمل وبنسبة (64%).
- أوضحت النتائج وجود علاقة ذات دلالة إحصائية بين ضغوطات العمل والعمر والجنس وسنوات الخبرة والعمل بنظام الورديات والراتب الشهري والأقسام.
- كما بينت نتائج الدراسة انه لا يوجد علاقة ذات دلالة احصائية بين ضغوطات العمل والحالة الزوجية والمؤهل العلمي.

### أهم التوصيات:

- يجب على مدراء التمريض في المستشفيات اعتبار الموت وعبئ العمل من عوامل الضغط الرئيسية وبالتالي ايجاد استراتيجيات لإدارة عبئ العمل للمرضيين وتسهيل مكان العمل المريح اثناء التعامل مع هذه الضغوطات.
- بناء على نتائج هذه الدراسة، كان عبئ العمل من اهم مصادر ضغوطات العمل لذلك ينبغي بذل جهد للحد من تأثير الضغوطات وذلك من خلال جدولة المهام، زيادة عدد الممرضين بما يتناسب مع اعداد المرضى.
- قد يؤدي التعرض الى ضغوطات العمل لفترة طويلة الى زيادة خطر المشاكل الصحية وذلك من خلال تحديدها ووضع الخطوات العملية للتقليل منها. وزارة الصحة بدورها ستقوم بتقديم استراتيجيات لتحسين بيئة العمل حيث يمكن للممرضين العمل بفعالية دون التأثير على صحتهم.
- تعزيز اداء الممرضين من خلال تشجيع النقد البناء وتقليل الصراعات من خلال المنافسة البناءة
- يوصى بإجراء مزيد من البحث للتركيز بشكل أكبر على أسباب الضغوطات المختلفة التي يتعرض لها الممرضين في مكان العمل.
- يوصي الباحث بتوفير أنظمة دعم لتحسين العلاقات داخل المؤسسة التي يعملون بها.