University of Mosul
College of Nursing

Incidence of Depressive Symptoms among Nurses of Pediatric Wards in Mosul City Hospitals

M.S.C. Thesis in Nursing

Submitted By

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Supervised by

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Lecturer

2025 A.D. **1447 A.H**

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To

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In Partial Fulfillment of the Requirements For

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﴿وَمَنْ أَعْرَضَ عَن ذِكْرِى فَإِنّ لَهُ مَعِيشَةً

ضَنكًا وَنَحْشُرُهُ يَوْمَ الْقِيَامَةِ أَعْمَىٰ﴾

صدق الله العظيم

(طه - الآية ١٢٤)

Dedication

Above all, to Almighty Allah who always give me strength, knowledge, and wisdom in everything I do.

I dedicate this thesis to:

My beloved father, I will not lose what you taught me and what you instilled in me, and I will always be your daughter that you are proud of, and I will not disappoint you, my beloved father.

My dear mother, who has always helped me since my childhood, and without her I would not have reached this stage. I ask God to protect her and prolong her life.

My family, who supported me throughout my studies.

My teachers, colleagues, friends and everyone who supported and helped me throughout my studies.

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Abstract

Background: Depression among pediatric nurses can negatively impact their physical and mental health, productivity, and the quality of care they provide. Nurses, in particular, are exposed to high levels of physical and psychological pressure, increasing their exposure for Psychological disorder like depression.

aim: The inquiry aims to estimate the incidence of depressive symptoms among nursing team of pediatric wards in Mosul city hospitals, identify their range, and examine factors associated with persistent depression.

Methods and Materials: A quantitative, descriptive study cross-sectional has been Performed data collection from 20 Dec 2024- 10 Feb 2025, using a simple random sampling method. The sample has included 119 pediatric nurses from Mosul hospitals. Data have been collected using the Self-Rating Depression Scale (Zung) to assess symptoms of depression. Data have been coded and analyzed using SPSS (version 27).

Results: The study has found that 3.3% n (4) of nurses have reported mild depressive symptoms, 84.2% n (104) have moderate symptoms, and 11.7% n (14)have experienced severe symptoms. Factors contributing to depression included psychological being (55%), physical and health factors being (51%), genetic factors being (39%), and environmental factors being (46%).

Conclusions: The study highlights a strong link between depressive symptoms and job demands, with fatigue, motor issues, and appetite changes being a common depressive symptom among nurses.

Recommendations: is recommended to implement resilience-enhancing programs, encourage nursing staff to discover purpose in their duty, and provide support through meaningful relationships and daily work assistance.

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List of Abbreviations

Abbreviations	Full Expression
BC	Before Christ
DSM5	Diagnostic and Statistical Manual of Mental Disorders
TH	Thyroid hormone
MDD	Major Depressive disorder
HPA	Hypothalamic- pituitary adrenal
NE	Norepinephrine
PET	Positron emission tomography
NAC	Nucleus accumbens
VTA	Ventral tegmental area
LC	Locus coeruleus
HVA	Homovanillic acid
TNF-α	Tumor necrosis factors alpha
PPD	Postpartum Depression
ELS	Eearly life stressors
ERT	Effort-Reward imbalance
DCS	Demand-cotrol-support
VNS	Vagus nerre stimulation
AVP	Arginine Vasopressin
5HT	5-hydroxytryptamine

List of Vocabularies

Vocabularies	معاني المفردات
Incidence	نسبة حدوث
Depressive symptoms	الاعراض الاكتئابية
Prevalence	الانتشار
Majority	غالبية
Antidepressants	مضاد اكتئاب
Psychotherapy	العلاج النفسي
Somatic	جسدي
Remedies	العلاجات
Hypothesis	فرضية
Influences	التأثيرات
Imbalances	الاختلالات
Pineal	الصنوبرية
Diagnostic	تشخيصي
Empirical	تجريبي

Chapter One

Introduction

Chapter One
Introduction

1.1 Introduction

Depressive disorder is a widespread psychological health condition identified by a lack of enthusiasm or enjoyment, ongoing sense of sadness, reduced energy levels, difficulty performing daily tasks, and poor concentration, (Ngasa et al.,2017). This disorder can impact every aspect of an individual's health, including their physical well-being, mental and academic functioning, as well as their social life, (Agyapong et al., 2023). About 3.2% of people worldwide report experiencing at least one depressive episode in their lifetime, out of an estimated 350 million who suffer from depression, (Njim et al., 2019).

Because they frequently have limited resources and must make quick, life-or-death choices, particularly in medical emergencies, healthcare workers frequently endure high levels of physical and mental stress. Poor mental health can have a negative impact on these professionals' performance, which can lead to medical errors, higher turnover, a decline in clinical abilities, and a lower standard of care. Patient safety and the standard of treatment are thereby negatively impacted, (Hall et al., 2016).

Stress is widespread among the global workforce, and a study conducted in Amsterdam in (2016) found that 22% of healthcare workers (HCWs) experienced general stress, 17% dealt with work-related fatigue, 12% faced distress, and 6% suffered from burnout, (Blekemolen et al.,2016). Depression has been shown to negatively affect job performance and productivity, as evidenced by a study of Australian employees in 2017, which found that depression led to higher employee turnover, (Cocker et al., 2017).

Depression is a major contributor to worldwide illnesses and death, representing 4.4% of international disorder cases, (Obi et al., 2015). Depression

is a critical public health issue, and the World Health Organization (WHO) predicts that by 2030, it will be one of the top three causes of disease burden worldwide, (Mathers et al., 2006). Depressive disorder is represented by a blue mood and a lack of interest engaged in activities, which can impact individual's thoughts, behaving, emotions, and physical health, (Bains. & Abdijadid, 2023).

Sadness, anxiety, concern, worthlessness, guilt, impatience, restlessness, and hopelessness are some of the emotions that people with depression may experience. In addition to experiencing changes in appetite (either loss of appetite or overeating), they may also have trouble focusing, remembering specifics, and making judgments. In extreme situations, they might consider suicide or attempt, (World Health Organization, 2022).

According to the World Mental Health Survey, 11% of people in low- and middle-income countries are likely to experience depression at some point in their life, while 15% of people in high-income countries are likely to do so (Patel etal., 2018). The frequency of depression varies by neighborhood, with higher rates among women, young individuals, and lower-income groups. Additionally, studies show that depression is a prevalent problem among nurses, (Gherardi-Donato et al., 2015).

In addition to its detrimental impacts on biopsychosocial well-being, depression has a substantial negative impact on people's ability to function in their professional lives. According to (Delacruz, 2024), depression reduces person's quality of life and productivity at work, which can result in monetary losses from missed work. A growing body of research from cross-sectional and longitudinal

studies suggests that depression and unhealthy habits are related. Variables such as smoking, excessive alcohol use, an unhealthy diet, and limited physical activity have been connected to depression, (Wang et al., 2021).

Physical health issues are also linked to these lifestyle choices. Actually, compared to people without depression, those who suffer from depression are more prone to diseases like diabetes and obesity Tsenkova.

Tsenkova For public health practitioners, this can lead to multimorbidity, which is associated with increased rates of chronicity and death, decreased functionality, and increased use of healthcare services, (Bezerra et al., 2021).

Nursing staff members are especially impacted because they deal directly with the intimate, unpleasant, and frightening parts of human suffering. Depression may arise as a result of a variety of reasons, including relationships at work, difficulties moving, lengthy workdays, shift work, and exposure to biological, chemical, and physical risks, (Lv etal., 2023).

1.2 Importance of the study

The connection between depression and workers is directly influenced by stressors in the workplace. Work stress, which arises from the mismatch between job demands and the worker's ability to cope, is linked to professional strain and has a negative impact on workers' mental health (Toker, s., & Biron, 2021).

The prevalence of depression or depressive symptoms among nursing professionals exceeds 20%, which is considered significantly higher compared to the general population (Xie etal. 2020).

The primary factors contributing to depression in nursing professionals can be categorized into internal and external work-related factors. According to a 2007 literature review, the organization of work is identified as the leading factor,

followed by social relationships at work and working conditions. External factors include socio-demographic characteristics such as being female, being over 59 years old, and having a low family income. Additionally, individual traits like problem-solving skills and family support play a crucial role in the

development of stress and depression. The connection between depression and work-related stress is particularly linked to working conditions among nursing professionals with technical education levels (Magadley etal., 2021).

The work carried out by these professionals is marked by limited control over their tasks, heavy workloads, repetitive duties, high competition, and low wages (wei etal. 2023).

A study conducted with nursing professionals in Portugal identified the main sources of stress as decision-making, where mistakes can have serious consequences, the inflexibility of supervisors, the task of preparing technical reports, and challenges in handling failures and professional issues (Costeira etal., 2022).

As a result of work-related stress leading to depression, tension and job dissatisfaction arise, which can create a bidirectional effect, increasing stress for both the worker and their colleagues. Depression caused by work stress also negatively impacts physical and mental health, absenteeism, and the quality of care, potentially leading to higher employee turnover in the sector (Dyrbye etal., 2021).

Because it causes consequences including a reduction in quality of life, job satisfaction, and relationships with co-workers, high levels of work stress can be considered a two-way relationship between depression and stress, which can worsen depressive illnesses and cause more stress (Li etal., 2020).

There are protective variables that can assist employees in dealing with these circumstances in addition to the ones that cause depression linked to high levels of work stress. According to a study made in (2011), regular meals, exercise, better opportunities to use skills, supervisor support, and higher job satisfaction can all lower the risk of work-related stress and depression (Nielsen and Christensen 2020).

1.3 Aim of the Study and Statement of the Problem

The present study aims to determinant the incidence of depressive symptoms among nurses working in pediatric wards in Mosul city hospitals, and to identify the associated contributing factors. This raises the central research question: To what extent do nurses in pediatric wards of Mosul hospitals experience depressive symptoms, and what factors are associated with their occurrence?

1.4 Objectives of the study

The study in hand focuses on the following objective:

1. To estimate the incidence of depressive symptoms among nurses of pediatric wards.

2. To identify factors that increase the risk of developing depressive symptoms.

3. To find out the relationship between the depressive symptoms and some characteristic of the sample.

1.5. Definition of Basic Terms

1.5.1 Incidence

Theoretical Definition: Relates to the count of new instances of a specific illness or health condition that occur within a defined population over a designated period. It is a metric that indicates the frequency at which new cases arise (WHO, 2020).

Operational Definition: The count of new occurrences of a specific phenomenon or event within a defined population over a set period.

1.5.2 Depressive symptoms

Theoretical Definition: As stated by the World Health Organization and Columbia University (2016), depression is a prevalent mental disorder

characterized by ongoing sadness or a diminished interest or enjoyment in activities. It is accompanied by various symptoms, including disrupted sleep or appetite, feelings of guilt or low self-worth, fatigue, difficulty in concentration, and challenges in making decisions, hopelessness, and suicidal thoughts or acts.

Operational Definition: symptoms may involve difficulty in concentration, intense guilt, low self-worth, a sense of hopelessness about what lies ahead, and recurring thoughts of death or suicide. A classification of depressive episode can be as mild, moderate, or severe.

1.5.3 Nurses of pediatric wards

Theoretical Definition: Pediatric nurses care for children from infancy through adolescence, up to 18 years of age. Their responsibilities include providing health education, supporting disease prevention, delivering clinical care, and assisting with the operational tasks within a pediatric practice. When pediatric nurses and pediatricians work together, they help ensure that children receive high-quality primary healthcare, (Dall et al., 2021).

Operational Definition: Pediatric nursing is a specialized branch of nursing focused on treatment of children, beginning in early childhood through the teenage years. This field is crucial because children's health differs from that of adults due to the ongoing growth and development during childhood.

Chapter Two

Literature Review

Chapter Two
Literature Review

2.1 Historical Background

Ancient period

The Ebers Papyrus, an ancient Egyptian document, contains references to affective distress related to the mind or heart that have been seen as signs of unhappiness or blue mood (Mc. Callum., 2021). Similarly, passages from the Hebrew Bible (Old Testament), written and compiled between the 12th and 2nd centuries BC, have been interpreted as depicting mood disorders in figures like Job, King Saul, and in the psalms of David, (Cook., 2020).

During the Islamic Golden Age, physicians in the Persian and Muslim world developed theories about melancholia. Ishaq ibn Imran (d. 908) merged the ideas of melancholia and phrenitis, (Zakaria etal., 2021). In the 11th century, the Persian physician Avicenna described melancholia as a form of depressive mood disorder, where individuals might become suspicious and develop specific phobias, (Boudriga etal., 2024).

On the other hand, Johann Christian Heinroth contended that melancholy is a soul wound caused by inner moral struggle of individual. Over time, multiple contributors are suggested as many as 30 different subtypes of melancholia, with alternative terms being proposed and rejected. Eventually, hypochondria became a separate disorder. Although the terms "melancholia" and "melancholy" were used interchangeably until the 19th century, the former came to refer to a temperament, while the latter grew to indicate a pathological condition (Berrios., 2018).

Emil Kraepelin, a German psychiatrist, distinguished manic depression for the first time in the 20th century. His influential classification system unified nearly all forms of mood disorders under the term manic–depressive insanity. Kraepelin operated under the assumption of underlying brain pathology and also emphasized a distinction between endogenous (internally caused) and exogenous (externally caused) types of mood disorders, (Grande etal., 2016).

Work of Mourning and Melancholia in (1917), Freud suggested that depression—referred to as melancholia—may arise from experiences of loss and tends to be more profound than ordinary mourning, Freud compared melancholia to mourning, theorizing that a tangible loss, such as the death of a loved one or a breakup, leads to an emotional loss as well. He suggested that the depressed person unconsciously internalizes the loved object through a narcissistic mechanism known as libidinal cathexis of the ego. This type of loss leads to intense melancholic symptoms that go beyond typical mourning. The individual develops a deeply negative view not just of the world around him, and also experiences a weakened ego, (Kupfer., 2017).

The patient's diminished self-esteem is evident in their feelings of guilt, inferiority, and unworthiness (Freud, S. 1984). Freud also highlighted the role of early life experiences as a contributing factor in the development of these issues, (Blatt etal., 2017*).*

2.2 An Overview

Depression is recognized as a prevalent mental disorder, marked by symptoms such as sadness, a loss of interest or pleasure, feelings of guilt

or low self-worth, disturbances in sleep and appetite, fatigue, and difficulty in concentration, (APA., 2022).

Currently, it is one of the main causes of disability; the association between depression and multiple comorbidities aggravates the prognosis of case and increases the risk of suicide, (Friedrich, M, 2017).

Job stress among hospital staff might have a significant impact on their mental health. A previous study has indicated that higher levels of occupational stress increase the likelihood of developing mental illnesses. Job stress, as measured by the effort-reward imbalance and Demand control support models, was found to be positively associated with depressive symptoms (Liu etal., 2023).

Because of the rigorous nature of nursing job over time, clinical nurses are especially vulnerable to depression and other unpleasant emotions, as well as psychological difficulties. A survey of the prevalence of depressive symptoms among Chinese nurses raised this concern (Xie et al., 2020).

2.3 Epidemiology

Nurses play a crucial role in the health sector, and their wellness or work achievement significantly impact the healthcare service quality. The profession of nursing is consistently regarded as a high-stress profession, with nurses facing various occupational stressors such as heavy workloads, limited time for patient care, irregular schedules, poor working conditions, and challenging patients, (Gohar etal., 2022).

These pressures can negatively affect nurses' health, impairing their professional performance and compromising the quality of treatment offered. These concerns are also likely to have a negative impact on patient

outcomes. As a result, nursing managers and hospital administrators are more concerned with the health and well-being of nurses, (Li etal. 2024).

Depression is a widespread mental disorder, affecting 14.6% of adults in high-income countries and 11.1% in developing nations it is projected that by 2020, depression will be the second leading cause of disability-adjusted life years lost, (Institute for health metrics and evaluation, 2020).

The occurrence symptoms of depression varies among different regions globally, with differences between countries with high, middle, and low income levels. In most countries, the prevalence ranges from 3% to 16.9%, it is projected that by 2030, depressive symptoms will be the second leading cause of Disability-Adjusted Life Years (DALYs), (Fisher et al., 2012). A study conducted in Ethiopia found that depression represents approximately 6.5% of the overall disease burden, (Gebreyesus etal., 2024).

Global studies indicate that Depressive symptoms affect 32.4% of healthcare professionals in Australia, (Maharaj et al., 2019), 38% in China 35.8% in Hong Kong (Cheung et al., 2015), 13.2% in Vietnam (Tran et al., 2019), and 43.9% in Saudi Arabia (Almarhapi et al.,2021) Egypt as 59% (El-Hamrawya et al.,2018). Malaysia as10.7% (Yahaya et al.,2018)., Pakistan as (24.8%) (Atif et al.,2016)., and Nigeria as 17.3%, (Gu A et al.,2015).

2.4 Pathophysiology of depression

Despite numerous studies which aimed at understanding the pathophysiology of depression, it remains largely unclear. This ambiguity contributes considerably to the delayed progress in identifying effective treatments for the disease. Various ideas on depression progression are

based on indirect markers, post-mortem examination, and neuroimaging approaches, (Gritti etal., 2021).

2.4.a) The brain circuitry involved in depression

Numerous conceptual frameworks and empirical investigations have revealed anomalies in the brain region that regulates feeling, reward system activation, and mental control skills. Forensic analysis and neuroimaging research has identified alterations in structure, including decreases in grey matter volume and glial cell density within the prefrontal cortex and hippocampal areas that were extensively explored through animal research on depression. Hippocampal dysfunction, believed to have a dampening influence on the hypothalamic-pituitary-adrenal axis, may contribute to the hypercortisolemia observed in depression. In the mesolimbic dopamine pathway, which contains it, it is also suggested that the nucleus accumbens (NAc) and the ventral tegmental area (VTA) play a role in depression by controlling the reward response to enjoyable stimuli such as food, sex, and drugs. As a result, the absence of pleasure experienced by depressed patients may be attributed to dysfunction within this brain reward circuitry, (Zaho etal., 2024).

2.4.b) Stress-induced response mechanisms

Long-term stress and over activity of the hypothalamic-pituitary-adrenal axis, resulting in persistent high cortisol levels, may contribute to depression onset and relapse after full remission. Individuals with high corticosteroid levels have shown structural brain abnormalities, with the amygdala being one of the most impacted areas, which is largely engaged in regulating emotional reactivity and, to a lesser extent, the stress response, (Belleau etal., 2024).

Chronic corticosteroid use has also been demonstrated to shrink the size of the hippocampus, a brain region known to convey inhibitory signals to the HPA axis (Hoskin etal., 2024).

2.4.c) Genetic predisposition and environmental influences

Depression is caused by a combination of genetic predisposition and environmental factors that impact how a person reacts under stress. No one gene variant appears to be responsible for depression; rather, genetic factors may predispose some persons to sadness by raising their sensitivity to stressful environmental stimuli Zannas etal., 2019).

2.4.d) The hypothesis linking biogenic monoamines to mood disorders

The monoamine theory of depression arose from unintentional discovery of first antidepressant medicines, which were originally created for other medicinal objectives. These clinical results made substantial contributions to our perception of the pathological alterations that occur in brain of persons have depression. It was proposed that these medications boost monoamine neurotransmitter levels in the brain works by suppressing monoamine oxidase (MAO), an enzyme responsible for degrading monoamines, or by hindering the reabsorption of neurotransmitters into the presynaptic cell, (Bunney and Davis, 2020).

2.4.e) Theory of serotonin

The neurotransmitter is found throughout the central nervous system and is involved in a variety of physiological functions, including pain perception, hunger control, aggressiveness, and mood regulation. Serotonergic system disruptions have been associated with neurotic disorders**.** It's based on the initial antidepressants that restores the brain's

decreased monoamine activity. Over time, selective serotonin reuptake inhibitors (SSRIs) alone have been found to be effective in treating depressive symptoms, demonstrating the function of serotonin (5hydroxy tryptamine) in the disorder's development, (Borroto etal., 2021).

Some depressed people were shown to have reduced amounts of (5-HIAA) 5-hydroxyindoleacetic acid, a serotonin (5-HT) biometabolite, in their spinal fluid. This decline associated with increased hostility, suicidal ideation, and impulsive behavior. Furthermore, plasma levels of tryptophan, the amino acid precursor to serotonin, are all lower in these people, and decreasing this amino acid can cause depressive symptoms in those predisposed to depression. Furthermore, positron emission tomography (PET) scans revealed a decrease in the density of 5-HT1A receptors in numerous brain regions of sad individuals. There is also less availability of the serotonin transporter (5-HTT) in places like the midbrain and brainstem. However, the significance of serotonergic dysfunction in depression is still contested, with some asking whether it is a direct cause or a risk factor for the condition, (Kambeitz & Howes., 2015).

2.4.f) The catecholamine hypothesis

Reserpine in the 1960s, researchers discovered as blood pressure–lowering medications that reduce storage of amine in the nervous system, leading to depressive symptoms. However, no consistent data have been reported about alterations in norepinephrine (NE) biometabolites in the spinal fluid (CSF) of depressed people. Later, the theory of supersensitivity was introduced, linking depressive disorder to hypersensitive neurotransmitter-releasing terminal α2 receptors, a theory supported by increased receptor density observed in post-mortem studies, which suggests impaired NE activity, (Strawbridge etal., 2023).

Some depressed symptoms, such as inability to experience pleasure and neuromotor slowness, are clarified better by abnormalities of dopamine in the brain's networks. such systems involve motor system in the dopaminergic center, as well as the brain's reward network in the nucleus accumbens and ventral tegmental area. Specifically, there is decreased a dopaminergic activity in the nucleus accumbens. It is connected to an impaired ability to experience enjoyment, a common hallmark of depressive disorder. Furthermore, depressed patients' cerebrospinal fluid (CSF) contains reduced concentrations of homovanillic acid (HVA), a dopamine metabolite, (Ogawa & Jauhar, 2018).

2.4.g) Depression and Inflammation

A rising collection of research indicates that depression could be an inflammatory illness. Depression is linked to elevated levels of pro-inflammatory markers, such as CRP, IL-6, IL-1, and TNF-α. IFN-α, a strong inflammatory cytokine, can elicit depression-like behaviors in laboratory settings. This cytokine has been also linked to depressive-like manifestations in individuals getting hepatitis C treatment, (Islam etal., 2023).

Depression is also associated with an increase in the generation of reactive oxygen and nitrogen species, which causes oxidative and nitrosative stress (ONS). This stress causes damage such as lipid peroxidation and harm to DNA and proteins. While the exact mechanisms are not fully understood, elevated levels of pro-inflammatory cytokines are believed to impair neuronal plasticity, eventually contributing to neurodegeneration, (Liu etal, 2020).

2.4.h) Depressive episode and endocrine signals

2.4.h.I. Thyroid hormones

Thyroid hormones Have been linked to the development of neural degeneration and mental illnesses. They are important for growth of brain and maturity, and they have been proven to encourage neurogenesis, particularly in the Limbic system structure. Low level of thyroid hormones has been associated with depression symptoms, most likely due to impaired hippocampus neurogenesis, which can be restored with hormone replacement. Animal research have additionally shown that hormones of thyroid improve serotonergic neurotransmission, which supports the use of TH supplementation to treat treatment-resistant depression, (Zhang & Chen, 2023).

2.4.h.II. Involvement of estrogen

Female depression is more likely to occur during phases marked by low estrogen, such as menstruation, the postpartum period, and menopause phases of reduced estrogen concentration, such as the female reproductive cycle, following childbirth and during the postmenopausal period postpartum. Preclinical research imply that estrogen improves mood and interacts with monoaminergic medications. Estrogen enhances mood via speeding up the breakdown of monoamine oxidase (MAO) and increasing serotonin (5-HT) transit within neurons, resulting to elevated synaptic levels of 5-HT. Beyond serotonin transmission, estrogen is also implicated in promoting hippocampal neurogenesis, modulating BDNF signaling, and influencing the HPA axis, (Bao & Swaab., 2018).

2.4.h.III. Depression and Vasopressin

The hypothalamic hormone arginine vasopressin (AVP) has been linked to multiple features of major depressive disorder. Its levels have been discovered to be higher in people with this illness, (Carvalho & Pariante, 2017).

AVP is connected to the regulation of the stress response, a key feature of depression, as it interacts with pituitary hormones corticotropin-releasing factor (CRF) at the level to impact ACTH released (Ebner etal., 2018).

2.4.k) Involving the role of the circadian cycle in depressive disorders

In individuals with depression, a delayed circadian rhythm has been associated with disrupted melatonergic transmission in encephalon. This can cause symptoms such as delayed sleep initiation, trouble staying asleep, and early morning awakenings. This results in the development of agomelatin, a novel antidepressant that targets serotonin receptors and melatonin in the suprachiasmatic nucleus. Sleep-wake cycle disruptions have additionally been linked to an increased risk of depression, (German & Kepfer., 2019).

2.5 Kinds of Depression

Many varieties are described as follows:

2.5.1 Major Depressive Disorders

Individuals with MDD usually have a persistent low mood and a loss of interest or pleasure (anhedonia), as well as physical changes such as weight fluctuations, decreased eating, changes in sleep habits, and chronic

exhaustion. Cognitive and executive function impairments are also widespread, such as difficulties in concentration, disorganized thinking, and preoccupation with ideas of death and suicide. These symptoms are frequently persistent throughout the day, causing severe discomfort and deficits in social and career functioning APA. (2022)

2.5.2 Persistent Depressive Disorder (PDD)

This condition is also referred to dysthymic disorder. A patient typically experiences a state of melancholy or sorrow that lasts most of the day, for at least two years in adults and one year in children and adolescents. Most individuals with this disorder do not meet the full criteria for Major Depressive Disorder (MDD) due to intermittent time of improvement, patients meet the full diagnostic criteria for major depressive disorder (MDD), thus receiving that diagnosis, (Klein & Nusslock., 2022).

2.5.3 Seasonal Affective Disorder (SAD)

Seasonal Affective Disorder (SAD) is an annual depression that usually occurs in the fall or early winter. Often referred to as the "winter blues," it is marked by depressed mood, feelings of self-blame, and inadequacy, increased irritability, and other symptoms associated with depressive illnesses. Patients may also feel of a strong desires for carbohydrate-rich foods, which can lead to weight gain, (Partonen, t. 2017).

2.5.4 Melancholic Depression

This type of depression is marked by an almost complete inability to face enjoyment, along with delayed psychomotor functioning and negative mood change in the early morning. It is widely observed among

older adults, individuals with intense forms level of depression, and those with psychotic depression, (Kupfer & Frank., 2017).

2.5.5 Postpartum Depression (PPD)

Postpartum Depression (PPD) is a range of depressed symptoms experienced by moms before or after giving birth, (Chaudron, LH, 2003). About half of these "postpartum" occurrence begin during pregnancy, thus being categorized as perinatal period episodes. The DSM-V suggests that factors like mood swings, anxiety during pregnancy, and the 'baby blues' can raise the risk of postpartum depression (O' Hara & Mc Cabe., 2018).

2.5.6 Psychotic Depression

This severe form of depression is accompanied by psychotic symptoms, such as hallucinations or delusions. Often considered a mix of psychosis and depressive symptoms, which cannot be clearly separated into either category. In addition to how severe it is, it is connected with a long duration, delay treatment outcomes, and a higher chance of recurrence, (Gaudiano & Miller, 2019).

2.6. Factors associated with depression

The term "risk factor" has been used in various ways to describe mechanisms, triggers, moderators, mediators, and both causal and non-causal risk markers. This lack of clarity in terminology is widespread, and while the precise use of terms is crucial (Kraemer etal, 2017), It includes the following factors:

2.6.1 Age factors

depressive episode which decreases in early adult stage, falls to its lowest point around the age of 45, and then increases in later life. In contrast, in (1987) Jorm observed a well-defined Inverted-U curve trend in the widespread occurrence of depression across different ages. His research also indicated an interaction between sex and age in predicting depressive disorders. The incidence of depression in women increases significantly from childhood to adulthood, followed by a decrease in later years, while the rates among men remain relatively steady after a slight increase during early adulthood, (Hu etal., 2022).

2.6.2 Gender

Females are more likely to experience depression than males. A modern research reinforced this finding. As indicated by data from the 2005-2006 National Health and Nutrition Examination Survey in the United States, (6%) of women aged (12) and older experience depression, compared to (4%) of men. Other studies have examined the interaction between gender and sex, as well as gender and academic background, and found that the impact of different gender vary depending on age and learning levels, (Zhu etal, 2022).

2.6.3 Racial background

Research indicates that Individuals not of Hispanic origin white individuals in the United States are more prone to experience depression (Simmons, 2008). In Canada, a research conducted discovered that Asian subgroups from the eastern and southeastern regions, compared to English Canadians, Chinese, South Asians, and Black Canadians report better

mental health. These findings imply that cultural and racial disparities in psychological wellbeing may be due to financial status (and social support, as cultures differ in family dynamics, social relationships, and stress reactions. However, there is limited data to support this notion, (Gonzalez etal., 2024).

2.6.4 Socioeconomic Status (SES)

In 2013, 2.5 million registered nurses in China have been a sizable nursing workforce of, reflecting their social and economic standing. However, the social, economic, and professional status of Chinese nurses differs from that of nurses in other nations. One important aspect is that nurses in China have a lower professional status because clinicians dominate the country's healthcare system, (Wang etal, 2022).

Nurses in China are considered subordinate to clinicians, with a low socioeconomic status and a significant societal stigma associated with the nursing profession. Furthermore, nurses in Chinese hospitals have severe tasks while earning poor wages. Nurses are typically the targeted group for cost-reduction measures, and management hospitals frequently lower nurse staffing levels to save money. As a result, Chinese healthcare facilities are facing major nursing staff deficits, (Zhu etal. 2020).

Chinese hospitals have fewer nurses per patient than countries such as the United States; Nurse earnings in China are likewise significantly lower. Found that salary disparities between China and the United States can be as much as 50 times. Even with such low salaries, nurses in China often feel compelled to use bribery through the so-called ‘back door’ to secure employment. While these practices are illegal, they remain widespread in China, and they are both demeaning and embarrassing for nurses and their families. Reports indicate that nurses in China experience

much lower levels of personal achievement and job satisfaction compared to their counterparts in other countries, (Xu etal, 2021)

Indicate that the worldwide economic crisis led to a 30% increase in Major Depressive Disorder relapses, as unemployment and income loss worsened during the crisis. (Frasquilho etal, 2016)

A positive correlation was identified between rates of unemployment and the frequency of depressive-related searches. As a result, this study looks not only into the effects of individual economic status, but also in how macroeconomic factors like poverty and unemployment rates at the county level influence depression prevalence, with the hypothesis that these factors have an impact on people's well-being either directly or indirectly, (Zivin etal., 2017).

2.6.5 Health Status and Practices

Few studies have investigated the relationships between depressive disorder and factors such as physical activity, well-being, and BMI, and many researches has yielded mixed results, (Loprinzi & Mohoney, 2019). (Hayes and Ross, 2015) discovered that Physical training and excellent health promote psychological well-being, while being obese had no relevant impact. In contrast, a study performed according to Linde, 2007 proposed that being overweight is linked to depression features, particularly in females. The study in hands research seeks to explore the Link between depressive disorder and physical health and behaviors in an effort to clarify previous findings.

2.6.6 Hereditary Influences

Although genetics do not directly cause depression, twin studies show that they are associated with a (37%) higher incidence of depression

than other factors. Instead of directly causing melancholy, depression-related genetic sequences can raise an individual's propensity to developing depression when subjected to environmental or other stressors. Depression is categorized as a polygenic disorder, which means it is impacted by a large number of gene variants, each of which contributes somewhat to the development of depressive symptoms. These genetic changes are known as frequent single nucleotide polymorphisms (SNPs). Genome-wide Association Studies (GWAS) are a useful technique for researching these SNPs because they compare allele frequencies between large groups of persons with Major Depressive Disorder (MDD) and healthy controls, allowing for the detection of alterations at frequent SNPs across the genome, (Mullins & Lewis, 2017).

2.6.7 Environmental Impact

Early life stress (ELS), such as childhood trauma and adversity, can contribute significantly to the development of depression and other mental health issues. Sexual and body assaults, losses of loved ones, spousal abuse, affective mistreatment, financial hardship, and health-related issues are all common forms of ELS. Research suggests that these experiences can cause changes in the structure and function of specific brain areas, which are similar to the characteristics of depression. For example, a heightened emphasis on negative stimuli, which is typical in people with depression, has been connected to ELS, (LeMoult et al., 2020).

The brain, as a complex structure, engages many regions in the development of depression, each with unique mechanisms. The amygdala and the anterior cingulate cortex are two primary brain areas that contributes to depression symptoms, (Herzog & Schmahl., 2018). Although the exact cause is unclear, many studies discuss the relationship

between amygdala size and experiencing traumatic events during childhood, as well as the duration within the experience. Research has shown that children who experience depressive symptoms or are institutionalized tend to have an increased amygdala volume, (Mc Laughlin & Sheridan, 2016).

Workplace bullying occurs more frequently in the healthcare and social work sectors, with nurses being particularly at risk compared to those in other fields (Jones, 2017).

Nurses may experience workplace bullying in various forms, such as personal attacks, work-related harassment, and intimidation, (Castronovo, 2016).

Bullying involves the inappropriate or abusive use of power, often leaving the victim feeling powerless and wronged, while also violating their inherent right to dignity. It can take place in various directions—vertically (from employees toward supervisors), horizontally (between coworkers), or from top to bottom (supervisors toward employees), (ANA board of directors, 2015).

Violence against nurses is a pandemic. According to World Health Organization (WHO), "between 8 to 38% of nurses suffer from health-care violence at some point of their career, (WHO,2021).

In addition, researcher observed that individuals with depression tend to have significantly Higher inflammatory responses linked to diet as an experimental group compared to those in the control group, (Firth et al.,2018).

The Hypothalamic-Pituitary-Adrenal (HPA) axis, involving the hypothalamus, pituitary, and adrenal glands, plays a key role in stress

response by regulating glucocorticoids. Studies show that about 60% of people with depression have excessive cortisol secretion, disrupting HPA function and linking high cortisol to depressive symptoms. Diet also impacts depression, but those affected often lack motivation to eat healthily, relying instead on fast food, which worsens symptoms. This creates a cycle of unhealthy eating and depression. Research highlights the Mediterranean diet—rich in fruits, vegetables, and seafood—as a promising intervention for improving depression and anxiety through its nutrient content (marx etal.,2020).

2.6.8 Persona, Temperament, and Susceptibility

Research in the area of depression and personality dysfunction is experiencing significant changes. The understanding of personality pathology is moving away from categorical models and adopting dimensional frameworks. Specific personality disorders are being removed from diagnostic classifications and replaced with trait-based personality profiles. In addition to phenotypic characteristics, the functional aspects underlying symptomatic presentations are being explored, opening up new possibilities for etiopathogenetic models and treatment approaches, particularly modular interventions. Since personality functioning is central to an individual's psychological structure, it is closely linked to various pathological conditions, including depression, (Behn et al., 2018).

2.7 Complication and consequences of Depression

2.7.1 Somatic consequences

Somatic status indicates to a state of wellness in the human system organs, tissues, cells function properly. Physical activity involves any body movement produced by skeletal muscles that requires energy, including movements as part of one's personal time or professional duties. The

connection between exercise and depressive disorder appears bidirectional. individuals with depression tend to be less active, and a decline in physical exertion can heighten the danger of developing depressive disorder. Adults with major depressive disorder often engage in minimal movement and exhibit high degree of inactive behavior, (Schuch et al., 2017).

Sleep problems are highly worrying features that significantly impact the quality of life in individuals with depression. A study found that (97%) of patients faced challenges with sleep during depressive episodes, with (59%) indicating that restless sleep severely affected their life quality, (Nutt et al., 2022).

Individuals with depression have also increased tendency to seek comfort in food during emotional stress, which has been associated with a greater rise in weight gain, in spite of accounting for depressive features. Depression and obesity are interrelated in a bidirectional manner, where weight gain and obesity can result from depression, and obesity can also increase the risk of developing depression, (Konttinen, H., 2022).

Repetitive thinking, a mental process defined as a recurrent, pessimistic and self-focused negative thinking, and self-centered thoughts, is frequently linked to depression. Individuals with depressive illnesses who engage in more ruminating have fewer positive impacts from their daily activities. This shows that rumination reduces the advantages of these activities, resulting in poorer personal care and worse results (Huang et al., 2022).

Individuals with depression suffer from struggle in self-care duties such as personal hygiene (e.g., applying cosmetics, showering, dressing) and may have difficulty creating daily routines, controlling tension, and

relaxing. Troubles of falling or staying asleep and struggling to get up in the morning are also prevalent (Gunn arson et al., 2023).

Research indicates that depression can lead to an increase in the likelihood of suffering pain. When depression and pain coexist, the effects on health and overall quality of life are more severe. Individuals with both illnesses have a larger impairment in their health and well-being, (Bair etal, 2017).

2.7.2 Social and psychological activities

Cognitive and social capabilities can be understood on a smaller scale, it relates to our capacity to cope with social and environmental difficulties in daily life, such as maintaining relationships and employment. On a larger scale, it involves our pursuit of meaningful life goals, such as achieving self-fulfillment. Cognitive impairment is a typical feature of major depressive disorder (MDD), affecting many cognitive domains such as awareness, recall, directive functioning, and response time. The extent of cognitive dysfunction in major depressive disorder is associated to the intensity of depressive symptoms, with a more severe depression leading to greater cognitive deficits, (Knight et al., 2018).

Cognitive weakness is also linked to week social and psychological well-being in MDD. Cognitive deficits have been shown to hinder job performance, social interactions, and daily living tasks, (Cambridge et al., 2018).

Individuals suffering from mood and depression disorders usually have deficiencies in executive functioning. These deficiencies can impair their capacity to control feelings, inhibit unfavorable thoughts and behaviors, and carry out goal-oriented behavior. Individuals with major depressive disorder frequently exhibit poor performance in areas such as working memory, speech suppression, and attention splitting. They have

an obstacle in creating appropriate solutions for tough interpersonal circumstances, (Walter et al., 2018).

Social functioning is a person's ability to engage in social interactions, maintain relationships, and adapt to social conditions. People suffering from depression and anxiety disorders commonly struggle with social functioning, including withdrawal from social activities, a lack of social support, and troubles in communicating effectively, (Saris., 2017).

Individuals suffering from depression may find it difficult to engage in social activities or manage community interactions, including attending events or visiting different places. They may also have trouble using public transportation. Furthermore, managing daily tasks, such as household finances, paperwork, and communication with government and housing authorities, can be overwhelming. People with depression often struggle to maintain contact with family and friends and may face difficulties balancing social interactions with time spent lonely, (Gunnarson et al., 2023).

2.7.4 Professional performance

Cognitive health issues like depression, anxiety, and stress can affect task performance, leading to absenteeism, presentism, and decreased work performance. Cognitive and behavioral indications of mental health disorders, employment demands, and the stigma associated with mental health all play a part. Poor mental health, particularly sorrow and anxiety, has been associated with lower productivity, (Oliveira et al.,2022).

Job-related capabilities relate to a person power to do duties connected to job, school, and leisure activities. Depression and anxiety can significantly affect the ability of individuals to perform tasks among

various life areas including professional, learning, and personal activities, (Gunnarson et al., 2023).

2.8 Clinical manifestation of depressive disorder

2.8.1. Emotional symptoms

Depression is characterized by persistent and deep sadness that goes beyond normal mood changes. Individuals often lose interest or pleasure in daily activities they once enjoyed. This condition is linked to imbalances in brain chemicals, particularly lowered levels of serotonin and dopamine. Anxiety commonly accompanies depression, with sufferers experiencing ongoing restlessness and excessive worry about the future. Many also feel emotionally numb or disconnected from their surroundings, reflecting reduced activity in brain regions responsible for processing emotions. Additionally, patients may become overly sensitive to external stimuli and fixate on their own condition, which further exacerbates their distress (cristina etal.,2023).

2.8.2. Cognitive symptoms

People with depressive disorders often experience poor concentration and difficulty focusing on tasks in daily life, work, or school. This cognitive impairment is linked to dysfunction in the prefrontal cortex, reducing their ability to process information and maintain attention. Memory problems, especially with short-term recall, are also common, as depression can affect memory-related brain areas like the hippocampus. These cognitive challenges worsen feelings of helplessness and distress in affected individuals (yao etal .,2023).

2.8.3. Physical symptoms

People with depressive disorders often suffer from insomnia, including difficulty falling asleep, poor sleep quality, or waking too early, which may result from circadian rhythm disruptions and neurotransmitter imbalances. Chronic sleep problems not only impair physical recovery and energy but can also worsen depressive symptoms. Appetite changes are common, with some patients experiencing loss of appetite and weight loss, while others overeat and gain weight, influenced by hormonal and emotional factors. Additionally, decreased libido frequently occurs, linked to low mood and physiological dysfunction, negatively affecting intimate relationships (yulug et al.,2024).

2.8.4. Behavioral symptoms

In severe stages of depressive disorder, individuals may experience suicidal thoughts or attempt suicide, often driven by feelings of hopelessness and worthlessness. This is a critical symptom requiring immediate medical attention. Additionally, many people with depression gradually withdraw from social interactions, avoiding activities and isolating themselves due to low self-esteem or the belief that they are a burden to others. This social withdrawal further deepens their emotional distress and sense of isolation (catalina elena etal.,2022)

2.9 Diagnosis of depression

The DSM-5 (Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition) divides mood disorders into several categories, including depressive disorders and bipolar and related disorders, (American Psychiatric Association.,2022).

Criteria for diagnosing Major Depression Disorders (MDD)

A. Five (or more) of the following symptoms have been present during the same 2-weeks period and reflect a noticeable change from earlier levels of functioning, with at least one symptom being depressed mood or diminished interest or pleasure. (American Psychatric asso sciation., 2022)

Notation: symptoms that can be clearly linked to another medical condition are excludes.

A person with depression often experiences a persistently low mood or irritability (in children) nearly every day, along with a loss of interest in most activities. Significant weight changes or appetite disturbances may occur without dieting. Sleep issues are common, including insomnia or excessive sleeping. Individuals may show physical restlessness or slowed movement and speech. Daily fatigue and low energy are typical, as are feelings of worthlessness or excessive guilt. Trouble concentrating, making decisions, or thinking clearly may appear. Suicidal thoughts, plans, or attempts can also occur and require urgent attention.B. The symptoms lead to noticeable distress or interfere significantly with the person's ability to function in social settings, at work, or in other key areas of daily life.

C. The episode cannot be explained by the effects of a substance (such as drugs or medication) or by another medical condition (American Psychiatric Association.,2022)

2.10 Treatment of Depression

Over time, a variety of therapy methods for depression have emerged. Pharmacotherapy, psychotherapy, and somatic therapies are all common techniques for treating treatment-resistant depression, (Mclntyre etal.,

2024).

2.10.1 Pharmaceutical treatment

Antidepressants were first identified accidentally, when clinical research revealed that iproniazid had mood-enhancing properties. originally created to treatment TB, had mood-boosting effects. Similarly, imipramine, which was previously assumed to be an antipsychotic, was discovered to have antidepressant characteristics. These findings did not only clear the way for the development of the first antidepressant classes, such as MAO inhibitors and TCAs, but also significantly increased our understanding of depression's pathogenesis, (Gideons & Tye., 2019).

2.10.2 Cognitive-Behavioral Therapy

Cognitive-Behavioral Therapy is a psychotherapeutic approach that helps individuals recognize and modify harmful or troubling thought patterns that negatively impact their emotions and behavior, (Guijpers etal., 2023). Under stress, some people may feel hopeless and struggle to solve problems. CBT develops more balanced thinking and improves stress management skills. CBT is found on learning theory principles such as classical and operant conditioning, which are then applied to clinical concerns. The development of "first-wave" behavioral treatment began in the 1950s, (Blackwell and Heidenreich., 2021).

2.10.3 Interpersonal Psychotherapy

IPT seeks to help individuals understand and manage dysfunctional relationships that may lead to or worsen depression. It entails investigating crucial themes, such as grief or times of significant change or disruption, which might exacerbate depression symptoms, (Markowitz & Weissman, 2023).

2.10.4 Problem-Centered Therapy

Problem solving therapy helps individuals strengthen their skills in handling challenging or stressful situations. It is especially useful for older persons suffering from depression. Individuals use an organized, step-by-step approach to identify problems and produce practical, realistic solutions. PST is typically a brief therapy that can be administered individually or in a group setting. Research has demonstrated that PST is beneficial for a variety of common mental health conditions treated by general practitioners, including depression, and anxiety, with the majority of studies focusing on depression. In randomized controlled trials, when given by trained general practitioners to individuals with serious depression, PST was as beneficial as medicine and other psychosocial interventions, and more successful than no treatment at all, (Zhang etal., 2018).

2.10.5 Physical therapy

A device-based approach to treating depression includes administering transitory electric or magnetic currents to the scalp or deeper brain areas. This approach is very useful for treating depression that does not respond to traditional drugs. It is also useful for maintaining remission following successful treatment and is used as an additional treatment. These somatic treatments are believed to induce brief seizures, which may play a role in their therapeutic effects. Their mechanism of action is primarily associated with an increase in neurotransmitter activity and sensitizing postsynaptic receptors by altering neuronal firing in relevant brain regions. Additionally, growth factors and long-lasting neuronal adaptations also play a role, (Nada etal, 2020).

2.10.6 Electroshock therapy

ECT is widely used as a first and effective somatic treatment for mental disorders, with ongoing clinical use. The procedure involves inducing a seizure. Electric current is applied using a pulse width between 0.3 to 1 milli second, a frequency ranging from 20 to 120 Hz, and a stimulation period of 0.5 to 8 seconds to the scalp. Prior to the procedure, patients are anesthetized to prevent serious complications, ECT is thought to increase blood levels of norepinephrine and enhance the sensitivity of 5-HT1A receptors, (Sackeim etal., 2020).

2.10.7 Magnetic Brain arousal

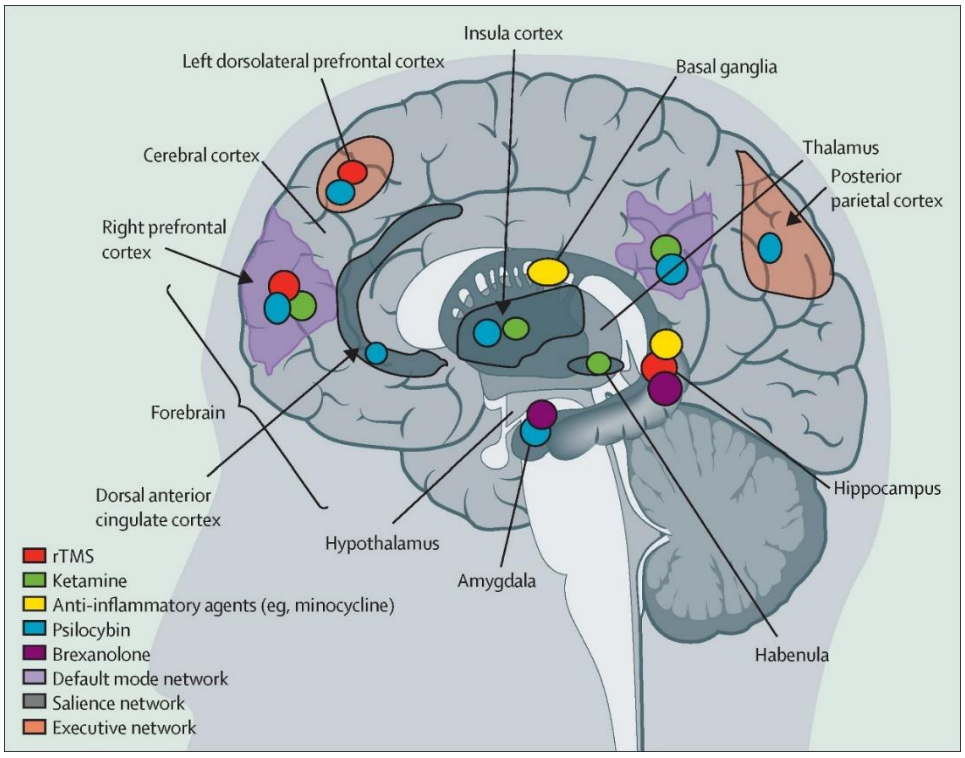
Another form of non-invasive somatic intervention is Transcranial Magnetic Stimulation (TMS) option for depression that doesn't respond to conventional therapies. TMS works by depolarizing cortical neurons with a magnetic current given through a metal coil inserted on the patient's scalp. This approach boosts dopamine and serotonin levels while also increasing activity at beta receptors and 5HT-activated receptors in the cerebral cortex. Furthermore, several investigations have found that TMS therapy reduces the sensitivity of presynaptic serotonergic auto receptors, (Sharaba fshaaer etal, 2024).

2.10.8 Neuro stimulation therapy

VNS is a low-risk surgical procedure involving the implantation of a pulse generator in the chest, which is connected to the vagus nerve left side via lead wires. The clinical benefits of vagus nerve stimulation typically take time to appear, making it a less attractive option for the immediate management of treatment-resistant depression. The exact mechanism behind VNS's action is still not fully understood, (Lisanby etal., 2024).

2.10.11 Herbal remedies used for treating depression

Medicinal plants have been utilized globally for treating both physical and mental health conditions since ancient times. Herbal remedies have become a viable option for managing mental health issues like anxiety, depression, and dementia, among others, (Klemens) Creating antidepressants from plant-based sources appears to be a logical strategy due to their effectiveness and reduced risk of side effects, (Shringi etal., 2024).



Picture (1) reported areas of impact for new and developing treatments for depression, such as repetitive transcranial magnetic stimulation (RTMS).

2.11 Nursing intervention of depression

Nursing intervention is a process through which nurses assess and manage patient care, organize relevant information, and facilitate communication with individuals, families, and the public.it is utilized to plan step, documentation, care interaction, data merging across systems or

settings, effectiveness studies, skill assessment, compensation system, efficiency evaluation, teaching method, and course design of care protocols. Interventions encompass both physiological and psychosocial dimensions, addressing the treatment of illness, the prevention of disease, and the promotion of health. For depression in adults, nursing interventions begin with an assessment of the mental and emotional condition of the patient. Nurses then offer psychological support and guidance to the patient and their family members, while educating them about the symptoms, causes, and treatment options for depression. It is also essential for nurses to monitor the patient's response to medication and confirm appropriate treatment. Patients referred to mental health therapies, such as cognitive behavioral therapy, is another key intervention, as it can help patients manage anxiety and depression. Furthermore, nurses should encourage patients to participate in social activities to improve their mood and promote self-care practices like adequate sleep, regular exercise, and healthy eating. Finally, routine check-ups are necessary to track the patient’s progress from depressive disorder, (Butcher, 2018).

2.12 Prevention strategies for Depression

2.12.1 Strategies to reduce stress and promote mental well-being among employees.

It is essential to prevent depression in the workplace for various important reasons. Depressive disorder disproportionately impacts working-age young adults, significantly impacting both businesses and governments. Depression is a major cause of lost work years from disability and early death, and it significantly contributes to increased sick leave and reduced productivity in many developed nations, (Gallup., 2022).

Research into workplace depression prevention is expanding, partly because organizations are increasingly acknowledging their responsibility for employee health, While many workplace interventions focus on treating existing mental health issues, a growing body of research is dedicated to preventing psychological problems, These preventive measures could not only prevent mental health issues but also lower costs for businesses, (Vinson etal., 2024).

2.13 Previous studies

The one of these studies study was carried out in Egypt by (Omnia A. El-Sayed, Medhat S. Attia, Zeinab N. Shata,2024) about' Depressive symptoms in nurses at Al Maamoura Psychiatric Hospital in Alexandria, Egypt. The study objective was to evaluate the prevalence of depressive symptoms in the participants and to identify some of their determinants among nurses in a mental hospital in Alexandria, Egypt. A study using a cross-sectional design was carried out among 215 participants Chosen at randomly at psychiatric nurses in Al-Maamoura Psychiatric Hospital in Alexandria. The data was gathered using a predesigned formulated self-administered questionnaire along with the Arabic Form of the Beck Depression Inventory List-II (BDI-II), The largest proportion of the sampled nurses reported “not enough monthly income” (40.5%), while the least proportion reported “enough monthly income and able to save” (2.3%). The majority of nurses’ titles were nursing technicians (51.1%) and nurses as (36.7%). This shows the allocation of the studied sample according to socio- demographic characteristics and depressive symptoms. Moderate/ Severe depressive symptoms were significantly more encountered among the age groups of 22 to 30 years compared to the older age groups of 31 to 40 and 41 to 59 years (X2=6.089, p=0.048). Although moderate/ severe depressive symptoms were more encountered among

female nurses (9.4%) than male nurses (4.2%), the difference was not statistically meaningful (p=0.703). As for marital status, unmarried nurses had significantly higher moderate/ severe depressive symptoms than married nurses (16.4% and 5.8% respectively, X2=6.036, p=0.014). Moreover, nurses with 5years diploma had the highest rate of moderate/ severe depressive symptoms (15.9%), followed by those with 3 years diploma (5.0%), and least among nurses with bachelor's/doctorate degree (3.1%), and the difference was statistically significant (X2=8.201, p=0.017). Psychiatric nurses' monthly income was not found to be strongly linked with their moderate/ extreme depressive symptoms (p=0.139).

The second study has been conducted in Saudi Arabia by (Khalid A Alharbi et al,2023) about Anxiety and depression among nursing staff in Saudi Arabia. The purpose of this study was to diagnose these disorders and identifying their underlying factors contributing to enhancing the quality and productivity of workers, especially nurses. This, in turn, positively impacts the quality of service provided and serves as a preventive measure, reducing the costs associated with managing such disorders. A cross-sectional study was conducted from December 2021 to March 2022 among nursing staff at government hospitals in the Qassim Region of Saudi Arabia. The hospitals included in the study were Buraidah Central Hospital, King Fahad Specialist Hospital, Maternity and Children Hospital, and Armed Forces Hospital. The research received approval from the Regional Ethical Committee in the Qassim region (Registration No. H-04-Q-001). In the present healthcare settings, nurses are prone to different risk factors for anxiety and depression due to work load, atmosphere and responsibilities. This affects qualitatively and quantitatively on their productivity.

The third research study has been done in Bangladesh by (Reva Monda, Yajai Sitthimongko, Nopporn Vongsirimas, Natkamol Chansatitporn, and Kathy Hegadoren,2022) about the impact of workplace stress and coping mechanisms on depressive symptoms among registered nurses in Bangladesh. A cross-sectional study was conducted to estimate the incidence of depressive symptoms among hospital-based registered nurses (RNs) in Bangladesh, identify common sources of workplace stress, and to explore the relationship between Personal attributes and depression characteristic degree. The study also explored whether coping strategies might mediate the link between workplace stress and depressive symptoms. A total of 352 registered nurses participated, with data collected using a demographic questionnaire and three standardized tools to assess workplace stress, coping strategies, and depressive symptoms.

In Bangladesh Serious concerns regarding the psychological health and well-being of registered nurses, particularly in relation to different sources of work-related stress. The study emphasizes the need for a deeper realization of the specific tension sources and the experiences of Bangladeshi nurses to better measure job-related stress. Factor analysis of the Nurse Stress Scale (NSS) and the Ways of Coping Questionnaire depended on information from Bangladeshi nurses may help tailor these tools to better fit the local context. The study also reinforces the idea that measurement tools created in developed countries may not be entirely dependable in developing nations, presenting a major challenge for global researchers. Comprehensive documentation of the daily routines of nurses in Bangladesh's maternal and child health sectors would serve as a valuable basis for comparing practices in various contexts. Enhancing the well-being of nursing professionals would, in turn, lead to an improved healthcare system and higher quality patient care.

The fourth Research was taking place in Ethiopia by (Asmare Belete and Tamrat Anbesaw,2022) about The frequency of depressive symptoms and the factors associated with them among healthcare workers at Dessie Comprehensive Specialized Hospital, Ethiopia. A cross-sectional study conducted to evaluate the rate and contributing factors of depression among healthcare professionals at Dessie Comprehensive Specialized Hospital. The study involved 252 randomly selected health workers, with depression Patient Health Questionnaire assessed by this scale, where a degree equaling to (5) or higher indicated depressive symptoms. Logistic regression with multiple predictors was performed to identify factors associated with depression, considering a p-value of less than 0.05 as statistically significant, and reporting adjusted odds ratios (AOR) with 95% confidence intervals (CI).

The results Indicated that the rate of depressive symptoms among the participants was 27.8% (95% CI: 22.6–33.7). Among those with depressive symptoms, 72.2% had no depression, 20.2% had mild depression, 6% had moderate depression, and 1.6% had severe depression. In the multivariable analysis, significant predictors of depression factors significantly associated included being female (AOR = 1.94; 95% CI: 1.12–3.67), not being married (AOR = 2.16; 95% CI: 1.12–4.15), having a family history of mental illness (AOR = 7.31; 95% CI: 2.27–23.49), and currently using substances (AOR = 2.67; 95% CI: 1.36–5.24). Overall, 27.8% of healthcare professionals in the study reported depressive symptoms, which translates to 70 individuals. Common level of depression features mild level was (51) participants, 20.2%), followed by moderate (15 participants, 6%) and severe (4) participants, 1.6%).

The fifth study has been done in china by (yafei Wu, xiaoxv yin, shijiao yan, Nan jiang, Mengge Tian, ji ali zhang, Zhenyuan Chen, Jing Wang, Chuanzhu Lv, Yanhong Gong,2022) about A nationwide cross-sectional study in China examining the difference in the Distribution of depression features between nurses and the general population using Statistical Matching. This study found that depressive symptoms among Chinese nurses are a significant concern, with a prevalence rate of 26.03%. Similar high rates of depressive symptoms have been reported in nurses from other countries, including the United States (18%) (Letvak et al., 2012), Australia (32%) (Maharaj et al., 2018), and South Korea (38%). Notably, this study is the first to report these findings in China.

The sixth study has been performed in Iraq by (Duha A. Mohammed,2021) about Identifying depression in nurses caring for COVID-19 patients at Baqubah Teaching Hospital the study aims to identify depression among nurses caring for patients infected with the COVID-19 virus and explore the relationship between depression and their demographic characteristics, such as age, gender, marital status, family type, education, years of experience in healthcare, COVID-19 infection, and participation in training courses. A descriptive study was conducted from October 10th, 2020, to April 15th, 2021, using a purposive (non-probability) sample of 100 nurses providing care to COVID-19 patients in isolation wards. The study instrument was based on the Patient Health Questionnaire (PHQ) to meet the study objectives. Content validity was ensured through expert panels, and internal consistency reliability was verified via a pilot study. Data was collected using the questionnaire and analyzed through descriptive and inferential statistics using SPSS version 22.

Additionally, 61% of nurses had not participated in epidemiological training courses, while 58% had prior experience working in isolation wards. A significant portion of (39%) of nurses obtained information from online sources, and 83% worked in isolation wards for more than four weeks. Seventy percent had not contracted COVID-19, 96% had no history of mental disorders, and 54% did not drink alcohol or have no issues with drug abuse. Using the PHQ-9, the researcher found that 43% of nursing staff experienced minimal depression, and 32% appearing mild depression, as indicated by their scores on the Patient Health Questionnaire.

The seventh studies was carried out in Brazil by **(**Vasconcelos EM, De Martino MMF, França SPS,2018) about 'An analysis of the relationship between burnout and depressive symptoms in intensive care nurses'. This study aimed to investigate the connection between the burnout and symptoms of depression among nursing staff in intensive care units (ICUs). The majority of the nurses were employed in the public sector (85.7%), with 34% working in night shifts. Only 6.6% held a second job, and 46.2% had an income ranging from second to fifth minimum wages. Regarding ICU departments, the distribution of nurses was as follows: 18.6% being in general ICU, 11.0% were in health plans, 8.8% in neurosurgery, 5.5% in pediatrics, 11.0% in neonatology, 5.5% in cardiac surgery, 7.7% in hemodialysis, 7.7% in cardiology, 6.6% in medical clinics, 5.5% in emergency rooms, and 5.5% in burns. According to the results from the Maslach Burnout Inventory (MBI), 85.7% of the 91 nurses interviewed did not exhibit burnout syndrome, while 14.3% showed signs of burnout. From the Beck Depression Inventory (BDI), 89.0% of nurses showed no depressive symptoms, while 5.5% experienced dysphoria and another 5.5% had depressive symptoms, indicating that 11.0% of the nurses reported symptoms of depression.

Chapter Three

Methodology

Chapter three

Methodology

This chapter discusses a number of topics, including the administration and ethical arrangements, study design, study setting, study sample, assessment tools, pilot study, validity and reliability of the questionnaire, data collection, study limitations, and data analysis.

3.1 Ethical Considerations

Ethical approval includes; (firstly) The Research Ethics Committee at the University of Mosul College of Nursing gave their approval (Appendix -A). (secondly) The Ethical Research Team of the Nineveh Health Directorate also officially approved the study's conduct (Appendix –B). (thirdly) The nurses who consented to participate in the study have signed consent forms stating that they are informed that participation is voluntary and the information will remain confidential and be used solely for research purposes (Appendix-C).

3.2 Research Design

A descriptive study with a quantitative approach was employed to accomplish the study's aim and objectives for the period from September 26, 2024, to April 26, 2025.

3.3 The Study Setting

The research took place in Six medical facilities in the city of Mosul. These hospitals include, (Mosul general Hospital, Ibn Al-Atheer Teaching Hospital, AlKhansaa Teaching Hospital, Al-Salam Teaching Hospital, AlBtool Teaching Hospital, Ibn Ceina Teaching Hospital) Mosul, a key city in Iraq, acting as the study location. Mosul, the capital of Nineveh Governorate, home to Mosul, is the second-largest city in Iraq by

population, following Baghdad the Capital city, and the second-largest region after Al-Anbar. With a population of approximately 4.1 million, Mosul is situated around 408 kilometers north of Baghdad, (Saleh et al.,2023).

3.4 Data Collection Period:

The data for the current study have been collected from nurses of pediatric wards in Mosul hospitals from the period of 20 December 2024, to 10 Feb 2025.

3.5 Sample and Sampling:

In the current study, a probability sampling (The simple random sampling method) has been utilized in several pediatric wards affiliated with the Nineveh hospitals within the right and left banks in the city of Mosul. the study objectives were pursued in Mosul, the capital of Nineveh Governorate in the Republic of Iraq. the total sample has included 119 participants embracing (6) hospitals ranging from ages between 20-50 years, for both genders males and females. It is created to investigate depressive symptoms incidence among pediatric wards, to ensure that there is sufficient statistical power, and to increase generalization. The samples have been chosen randomly by the researcher within the hospitals and according to the statistics of the Nineveh health Directorate the total number of nurses was 4,605 working at the Nineveh Health Dimcter center (Appendix-D).

3.6 Tool and Instrument of the Study

The study instrument has modified a questionnaire that assesses depressive symptoms using a questionnaire based on The Zung Self-Rating Depression Scale (SDS), created by Zung, WW in 1965. It is a self-assessment tool for depression. used to assess the incidence of depressive

symptoms and includes three part. The first part is demographic data, the second part includes risk factors, the third includes depressive scale, (Appendix M1).

Part I: This section of the questionnaire includes sociodemographic information of the patients, which includes the nurses age, gender, housing, marital status, husband's profession, wife profession, number of family members, academic achievements, years of experience, number of working hours, name of the hospitals worked in, the workplace within the hospitals, and monthly income + Work shift (Nightly, morningly)

Part II: This part of the questionnaire consists of considering risk factors of depressive symptoms including four domains. First psychological factors, second physical and health factors, third genetic factors, fourth environmental, all are related factors to depression.

Part Ⅲ: This part of the questionnaire consists of a modified Zung Self-Rating Depression Scale (SDS) consisting of 30 questions that assess depressive symptoms. It is a brief, self-administered tool designed to measure the patient's depression status. The scale includes 30 items that evaluate four key aspects of depression: its overall impact, physiological symptoms, other related disturbances, and psychomotor activities. Of the 30 questions, ten are positively worded, while other twenty are negatively worded. The nurses answered these statements using the following five points Likert scale, which varies from, 1= never,2=seldom,3= sometimes,4= Majority of the time, to 5= always).

The scores on the scale range from 30 to 150, with higher scores indicating more severe depression. The interpretation of the scores is as follows:

- 25-49: Normal range

- 50-59: Mildly depressed
- 60-69: Moderately depressed
- 70 and above: Severely depressed

The scores on the scale range from five point Likert scale, 5 divide on 3 = (00 -1.6) mild depression, (1.67- 3.33) moderate depression, (3.34 -5) severe depression.

3.7 Validity Testing

Content validation of the questionnaires has been done by fourteen experts working on different sites (Community Health Nursing, Psychological and Mental Health Nursing, Child and Adolescent Health Nursing, psychologist, Applied English, Educational psychology, Statistics) and has been followed up with an evaluation by expert reviewers or committees to facilitate the validation of the content. They have agreed to use them after amending (Appendix K).

3.8 Pilot Study

The pilot study has been conducted on ten nurses from pediatrics ward who are (randomly selected) from Mosul's Hospitals from the left bank and right bank of the Tigris River in the City. The pilot study has been carried out at the period of 10 days extending from 20 November 2024 to 30 November 2024.The final study sample has not included the pilot study's samples. The pilot study's participants have shared the same traits as the study's final participants. The researcher has collected the data from the sample through an interview.

The study aims to-:

1. Determine the potential obstacles that may arise throughout the data collection process.
2. Estimate how long you think data collection will take.

3.To check the cooperation of the participants with the researcher.

4. Determine the questionnaire's reliability.

5.To see if the contents of the questionnaire are clear and understandable to the research participants.

3.9 Reliability

Reliability is the ability to assess and evaluate the target quality, which can compare, assess, and measure the internal consistency, stability, or otherwise trustworthiness. Likewise, reliability is accuracy. The tool has been so reliable that event re-procedures have been realistic, like cracks, to the point that dimensional errors remained unnoticed.

A pilot study has been conducted on 10 nurses who are not included in the final sample. Cronbach's Alpha measurement has been used to evaluate the internal consistency of the instrument, and the result of reliability for the pilot study of Cronbach's Alpha has been (0.78), which is acceptable.

3.10 Methods and Data Collection

The interview has been conducted at pediatric wards in six hospitals in Mosul. The researcher starts the interview with the following steps:

Step One

Explaining the study in details to the nurses to get their verbal agreement and sign. Consent has obtained from participants to take part in the study, and it has clarified that nurses could withdraw and apologize for it.

Step Two

An interview is conducted to fill out the questionnaire. Some nurses have filled the questionnaire on their own, and the researcher or their companions have provided assistance to participants who are illiterate. The

taken time for each participants is (15-20 minutes) to complete the questionnaire. Data have been collected between the 20st of December 2024 and February /10th/ 2025.

3.11 Statistical Analysis

The data collected are coded and analyzed using version 27 of the Statistical Package for Social Sciences (SPSS) for Windows 10, along with Microsoft Office Excel 2020 to processing that data.

3.11.1 Descriptive Statistical Evaluation:

1- To provide an overview of the demographic data, frequencies and percentages have been utilized.

2- To calculate the data values, means, degrees of freedom, and standard deviations have been used.

3.11.2 Statistical Analysis of Data

1- One-sample test.

2- One -way ANOVA.

3.12 Study Limitations

The following limitations have been assigned:

1-Because they fear shame or reprisals, nurses may be reluctant to report depression events because of stigma of mental illness, which leads to an underreporting of incidences and erroneous prevalence statistics.

2- Lack of time when asking questions to nurses due to their commitment to work in wards.

3 – Some nurses refuse to participate.

4- Night schedules prevent them from seeing and speaking with nurses.

Chapter Four

Results

Chapter Four

Results

First: Demographical features:

Table (4-1): Sociodemographic data of the study participants.

Demographical Data	Categories		No.	%
Age	20-24		16	13
	25-29		41	35
	30-34		24	20
	35-39		12	10
	40-44		15	13
	45and more		11	9
Gender	Male		49	41
	Female		70	59
Place of residence	Rural		24	20
	Urban		95	80
Housing type	Ownership		86	72
	Rent		33	28
Marital status	Single		19	16
	Married		89	75
	Divorced		4	3
	Widowed		7	6
Profession	Wife profession	Employee	20	41
		Not employed	29	59
	Husband	Employee	67	96

	Profession	Not employed	3	4
Family size	1-5		69	58
	6-10		50	42
Educational level	Nursing Preparatory School		18	15
	Diploma (Technician nurse)		51	43
	Bachelors (university nurse)		47	40
	Master		3	2
service years	5 years or fewer		61	51
	6-10		16	14
	11-15		19	16
	16-20		17	14
	21 years and over		6	5
Daily working hours (h)	6 hours		38	32
	7 hours		60	50
	1 8 hours every 3 day		21	18
The name of the hospitals where you work	AL Salam		8	7
	Ibn ceina		17	14
	Alba tool		13	11
	Mosul general		18	15
	Ibn alatheer		41	34
	Alkhansaa		22	19
The workplace is inside the hospital	Children lounges		55	46
	Emergency unit		26	22

	Intensive care unit	12	10
	Neonatal unit	26	22
Monthly income	Less or equal to 500 thousand IQD	27	23
	600-1000000 IQD	73	61
	More than 1000000 IQD	19	16

Table (4-1) presents the demographic and professional information of a group of nurses showing that the largest age group is (25-29) the percentage of age categories is (35%), followed by (30-34), and the percentage of age categories is (20%) and the lowest categories was (9%), it is over 45 years old. The table also shows a higher percentage of females (59%) compared to males (41%). Most individuals (80%) live in the urban areas, the table also shows the participants from the rural areas (20%).Housing type shows that owning their homes are 72%. A smaller percentage live in rent houses being 28%. The majority of individuals are married being 75%. The small percentage of divorced nurses is 3%, or widowed as 6%, the percentage of as single is 16%. Occupation profession divided into wife profession is a percentage of employed being 41% and not employed being 59% and husband profession employ is96% and not employed was 4%.

Table (4-2) the total mean and percent of depressive symptoms

Degree of depression	Number	Percent %	Total mean	SD
Mild	4	3.3	2.781	0.467
Moderate	101	84.2		
Severe	14	11.7		

Table (4-2) shows nursing of pediatrics ward depression symptoms mild = 3.3%, moderate level = 84.2%, severe level = 11.7%.

The percentage of depressive symptoms among nurses of pediatrics wards.

Table (4-2) explain the total mean of (119) and percent of sample the highest percentage of sample are appearing suffer from moderate level of depressive symptoms n (84.2)84.2%, and seconds level of nurses appearing severe depressive symptoms n (14) 11.7%, the third level nurses have mild depressive symptoms n (4) 3.3%. this result, unfortunately, there are no previous research data to support this finding.

The second part: Risk factors

Table (4-3) the psychological factors that count as a high risk of depressive symptoms.

A	Q	Response scale				One-Sample Binomial Test	
		Yes		No			
		No.	%	No.	%	Statistic	P-value
Psychological factors	Exposed to psychological violence	67	56	52	44	52	0.199
	Have you had anxiety before ?	62	52	57	48	62	0.714
	Have you lost someone dear to you?	64	54	55	46	64	0.463

	Have you experienced depression after pregnancy?	48	71	20	29	**20**	**0.001**
	Do you have difficulty performing work?	51	43	68	57	51	0.142
	Have you seen a mental health professional?	46	39	73	61	**73**	**0.017**
	Do you smoke cigarettes and hookahs?	78	65	41	35	**78**	**0.001**
	Do you compare your life to others?	71	60	48	40	**71**	**0.044**
	Are you satisfied with your job?	72	61	47	39	**72**	**0.028**
	Do you like working as a nurse?	69	58	50	42	50	0.099
	Do you watch a lot of television and other websites?	65	55	54	45	54	0.359

At the macro level					
Yes		No		One-Sample Binomial Test	
				Statistic	P-value
No.	%	No.	%		
694	55	566	45	593	0.045

Table (4-3) shows the psychological factors including eleven questions each question describes some psychological status. At the total answer as participant's answers (Yes) are 694 being percentage 55%, and the participants whose answer is (No) are 566 being 45%. So, the table

shows that there appears of psychological factors as risk factors to nurses to get depressive symptoms. The table also show Q4 by asking nurse as a female nurse have you experienced depression after being pregnancy? Those nurses who said yes are 48 being a percentage of 71% and those nurses who said no are 20 percentages being 29%. The p-value 0.001 indicates nurse's high risk of getting depressive symptoms. Table (4-3) shows the nurses who smoke cigarettes and

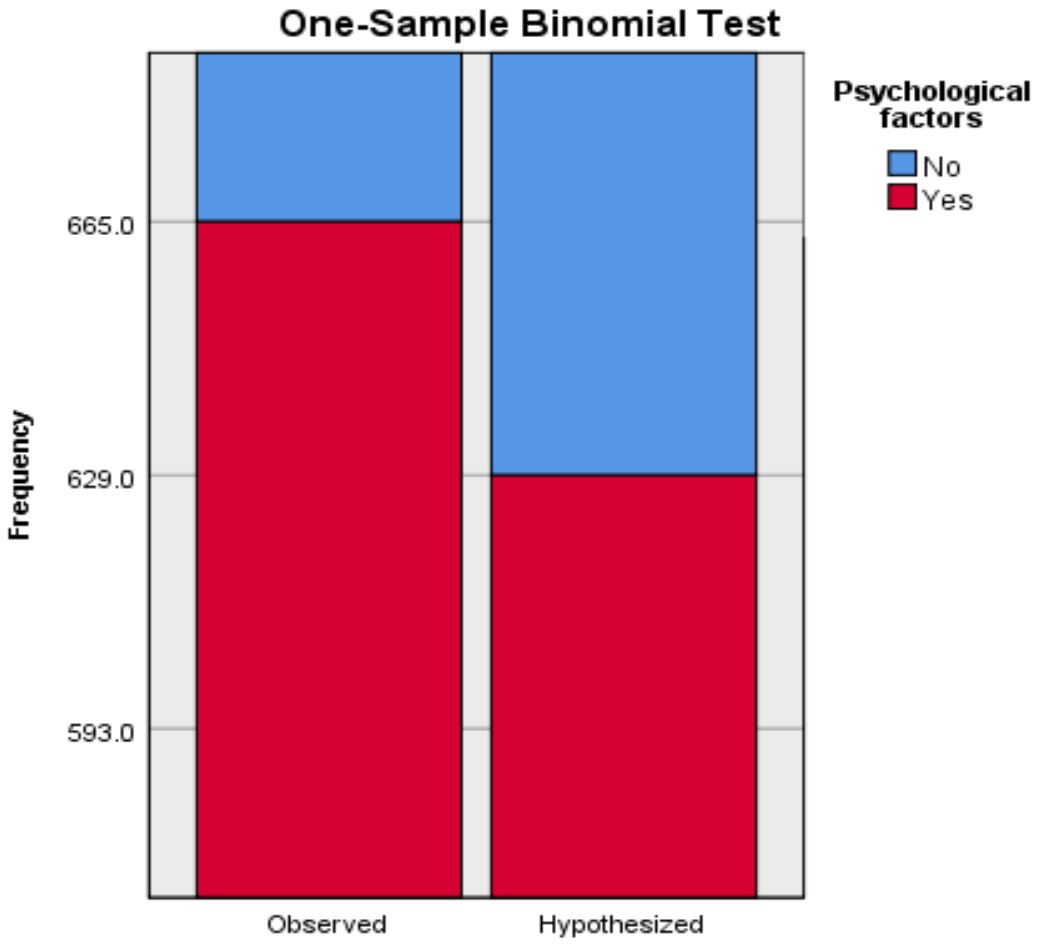


Figure (4-3) the psychological factors observed among nurses

Table (4-4) the physical and health risk factors to depressive symptoms.

A	Q	Response scale				One-Sample Binomial Test	
		Yes		No			
		No.	%	No.	%	Statistic	P-value
Physical and health	Exposed to physical violence?	64	54	55	46	64	0.463
	Suffered from obesity?	76	64	43	36	**43**	**0.003**
	Have health problems and constant pain resulting from a specific disease?	77	65	42	35	**77**	**0.002**
	Have a history of anorexia?	82	69	37	31	**82**	**0.000**
	Do you exercise?	37	31	82	69	**37**	**0.000**
	Suffer from sleep problem?	67	56	52	44	52	0.199
	Take medications and narcotics?	23	19	96	81	**96**	**0.000**

At the macro level					
Yes		No		One-Sample Binomial Test	
				Statistic	P-value
No.	%	No.	%		
426	51	407	79	426	0.533

Table (4-4) shows the physical and health factors the total nurses said (Yes) are 426 being percentage 51% and the total answer said (No) are 407 being percentage 79%. The question has been asking the nurses including seven question, the first question have you been exposed to physical violence answer this question shows the number of nurses said (Yes) are 64 being 54% and the total nurses said (No) are 55 percentages of 46% the p-value 0.463 less nurse's exposure to physical violence. The table shows the Q2 asks the nurse have you suffered from obesity? Those who answered (Yes) are 76 being 64% and the total nurses answered (No) are 43 being percentages of 36% the p-value 0.003 indicates the nurses suffer from obesity its risk factors to depressive symptoms.

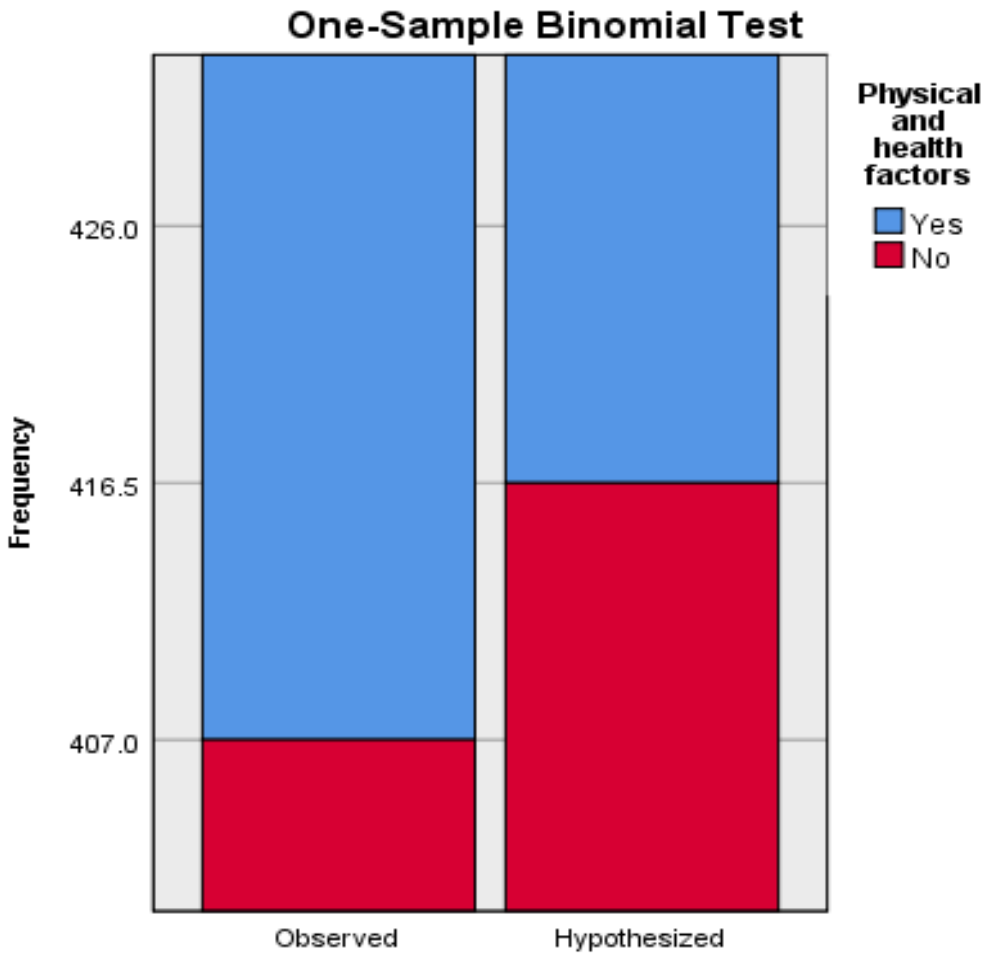


Figure (4-4) the physical and health factors among nurses

Table (4-5) genetic factor risk to depressive symptoms.

A	Q	Response scale				One-Sample Binomial Test	
		Yes		No			
		No.	%	No.	%	Statistic	P-value
Genetic factors	Mental health history	58	49	61	51	61	0.855
	any of your family members commit suicide?	35	29	84	71	**84**	**0.000**
At the macro level							
Yes		No		One-Sample Binomial Test			
				Statistic		P-value	
No.	%	No.	%				
93	39	145	61	**145**		**0.001**	

The table (4-5) shows genetic factors at the macro level the nurses answer is (Yes) are 93 being percentages of 39% and nurses whose answer (No) are 45 being percentages of 61%, the p-value 0.001 indicates that risk factors of genetic factors, regard family member commit suicide the p-value 0.000 affect overall sample.

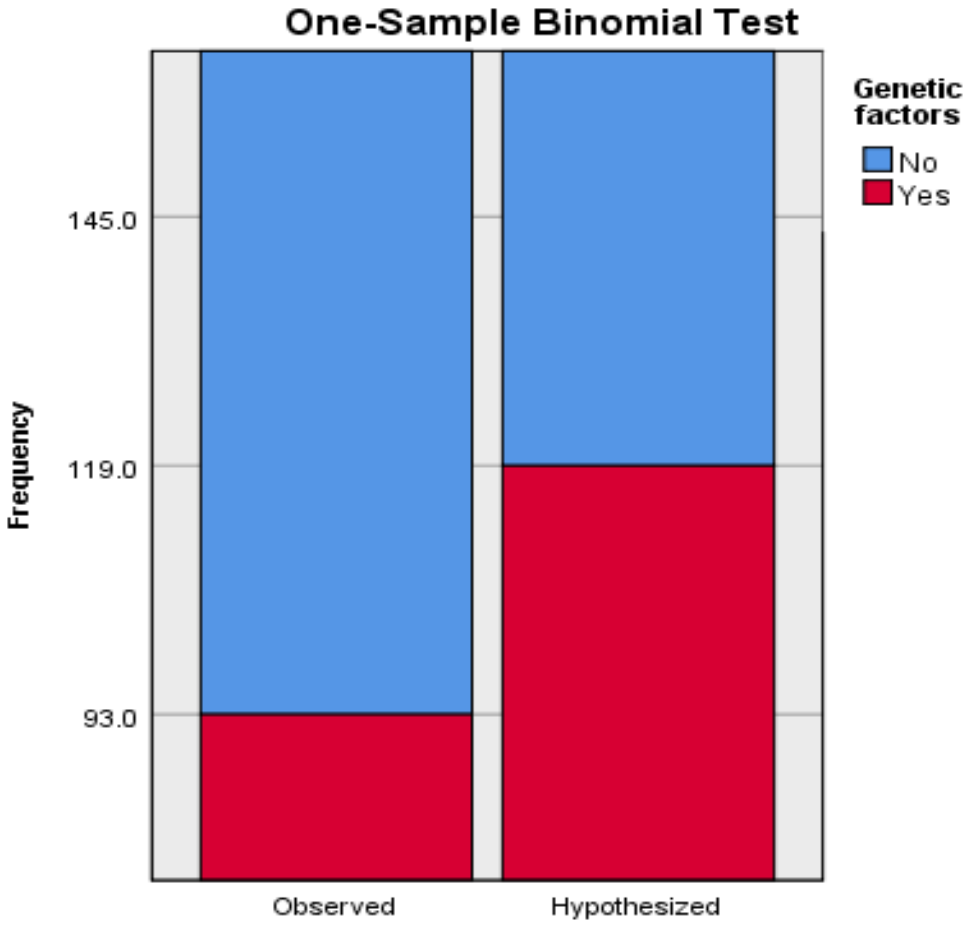


Figure (4-5) the genetic factors among nurses

Table (4-6) Environmental factors risk to depressive symptoms.

Axis	Q	Response scale				One-Sample Binomial Test	
		YES		No			
		No.	%	No.	%	Statistic	P-value
Environment	Drinking alcohol	44	37	75	63	**44**	**0.006**
	Exposed to a harassment?	23	19	96	81	**96**	**0.000**
	Trouble in communicating with your co-workers?	39	33	80	67	**80**	**0.000**

	a problem in communicating and relationship with your family?	40	34	79	66	**79**	**0.000**
	Is the environment you work in competitive?	77	65	42	35	**77**	**0.002**
	suffer from bullying at work?	72	61	47	39	**72**	**0.028**
	depend on fast food?	87	73	32	27	**87**	**0.000**
At the macro level							
Yes		No		One-Sample Binomial Test			
				Statistic		P-value	
No.	%	No.	%				
382	46	451	54	**382**		**0.018**	

Table (4-6) shows the environmental factors including seven question the total nurses answer (Yes) are 382 being percentages of 46% and the total nurses answer is (No) are 451 being percentages of 54% the p-value 0.018. The table shows the Q6 Do you suffer from bullying at work? The total nurses answer is (Yes) are 72 being percentages is 61% and the nurses answer (No) are 47 being percentages 39% the p-value 0,028. The table shows the Q7 Do you depend on fast food? Whose answer is (Yes) are 87 being percentages of 73% and the nurses answer (No) are 32 being percentages of 27% the p-value 0.000.

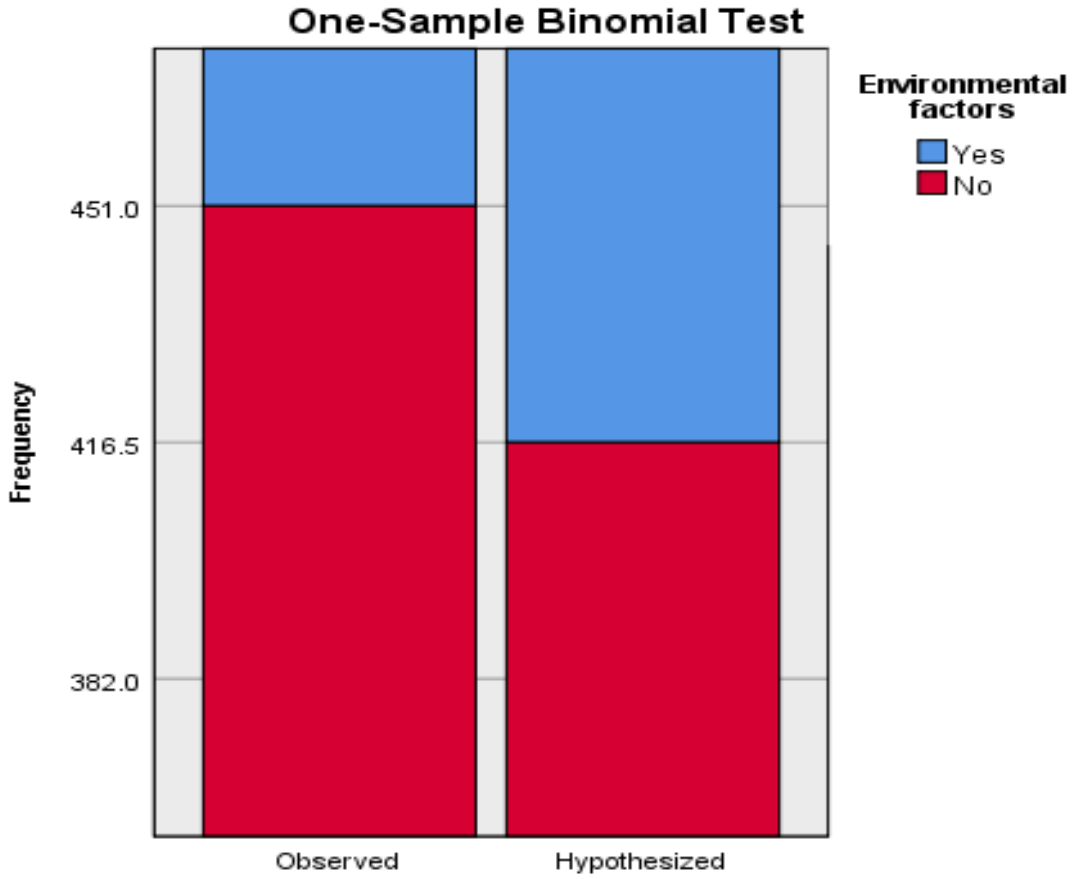


Figure (4-6) the environmental risk factors among nurses

The third part: Zung self –Rating depression scale.

Table (4-7) the positive feeling and symptoms.

Paragraph	Response scale										One sample t test			
	Always (5)		Most times (4)		Some times (3)		Rarely (2)		Never (1)					
	No	%	No	%	No	%	No	%	No	%	Mean	Statistic	p-value	Degree of depression
Q1	26	22	27	23	22	19	28	24	16	13	3.16	1.276	.205	Moderately Depressed

Q2	34	28	26	22	32	27	13	11	14	12	3.45	3.665	.000	Mildly Depressed
Q3	28	24	28	24	30	25	20	17	13	11	3.32	2.677	.008	Moderately Depressed
Q4	20	17	35	29	36	30	16	13	12	10	3.29	2.683	.008	Moderately Depressed
Q5	31	26	30	25	36	30	12	10	10	8	3.50	4.507	.000	Mildly Depressed
Q6	17	14	24	20	43	36	13	11	22	19	3.01	.072	.943	Moderately Depressed
Q7	16	13	27	23	39	33	18	15	19	16	3.03	.220	.826	Moderately Depressed
Q8	31	26	41	35	26	22	9	8	12	10	3.59	5.184	.000	Mildly Depressed
Q9	31	26	30	25	35	29	10	8	13	11	3.47	4.049	.000	Mildly Depressed
Q10	15	13	18	15	31	26	8	7	47	40	2.55	3.404	.001	Moderately Depressed
	At the macro level													
Mean of percentage	20.9		24.1		27.6		12.4		15.0		3.24	4.581	0.000	Moderately Depressed

Table (4-8) the negative feeling and symptoms.

Paragraph	Response scale										One sample t test			Degree of depression
	Always (5)		Most of time (4)		Some times (3)		Rarely (2)		Never (1)					
	No	%	No	%	No	%	No	%	No	%	Mean	Statistic	p-value	
Q1	5	4	6	5	63	53	24	20	21	18	2.5798	4.684	.000	Moderately Depressed
Q2	6	5	15	13	42	35	31	26	25	21	3.4538	4.458	.000	Severely Depressed
Q3	6	5	21	18	41	35	22	19	29	24	3.3950	3.650	.000	Severely Depressed
Q4	9	8	14	12	32	27	33	28	31	26	3.5294	4.761	.000	Severely Depressed
Q5	4	3	9	8	40	34	27	23	39	33	2.2605	7.330	.000	Moderately Depressed
Q6	3	3	16	13	39	33	32	27	29	24	3.5714	5.782	.000	Severely Depressed
Q7	10	8	22	19	51	43	24	20	12	10	3.0504	.517	.606	Moderately Depressed
Q8	12	10	21	18	38	32	15	13	33	28	2.6975	2.503	.014	Moderately Depressed
Q9	18	15	30	25	43	36	14	12	14	12	2.7983	1.848	.067	Moderately Depressed
Q10	9	8	15	13	32	27	19	16	44	37	2.3782	5.211	.000	Moderately Depressed
Q11	7	6	21	18	46	39	22	19	23	19	2.7227	2.649	.009	Moderately Depressed
Q12	6	5	27	23	34	29	27	23	25	21	2.6807	2.938	.004	Moderately Depressed
Q13	4	3	22	19	37	31	25	21	31	26	2.5210	4.492	.000	Moderately Depressed
Q14	6	5	22	19	39	33	17	14	35	29	3.4454	3.940	.000	Severely Depressed
Q15	4	3	28	24	33	28	16	13	38	32	3.4706	4.093	.000	Severely Depressed
Q16	9	8	18	15	22	19	20	17	50	42	3.7059	5.709	.000	Severely Depressed

Q17	9	8	19	16	28	24	19	16	44	37	2.4118	4.824	.000	Moderately Depressed
Q18	7	6	22	19	26	22	25	21	39	33	3.5630	4.799	.000	Severely Depressed
Q19	9	8	14	12	38	32	25	21	33	28	3.4958	4.407	.000	Severely Depressed
Q20	4	3	20	17	36	30	20	17	39	33	3.5882	5.333	.000	Severely Depressed
At the macro level														
Mean of percentage	6.10		16.20		32.00		19.30		26.40		3.07	2.416	**0.017**	**Severely Depressed**

Table (4-8) considers the feeling and the negative symptoms. and the nurse's response. also show the degree of the depression for each question and at the macro level the nurses being severely depressed.

Table (4-9) analyzing the information of psychological factors differences between categories of demographic.

Factor	Variable	Categories	Mean	ANOVA F-statistic	P-value	Ranking
Psychological Factors	Age	20-24	1.39	1.530	0.186	----
		25-29	1.43			
		30-34	1.40			
		35-39	1.29			
		40-44	1.31			
		45and more	1.32			
	Gender	Male	1.26	31.61	0.000	2
		Female	1.45			1
	Place of residence	Rural	1.32	2.197	0.141	----
		Urban	1.39			

	Housing type	Ownership		1.35	4.865	0.029	2
		Rent		1.45			1
	Marital status	Single		1.43	1.76	0.158	----
		Married		1.37			
		Divorced		1.35			
		A widower		1.22			
	Profession	Wife profession	Employee	1.19	5.857	0.020	2
			Not employed	1.32			1
		Husband profession	Employee	1.46	0.011	0.917	----
			Not employed	1.47			
	Number of family member	5-1		1.41	6.188	0.014	1
		10-6		1.32			2
	Educational level	Nursing preparatory school		1.38	1.438	0.235	----
		Diploma (Technician nurse)		1.35			
		Bachelors (university nurse)		1.41			
		Master		1.19			
	Years of service	5 years or less		1.40	1.692	0.157	----
		10-6		1.43			
		15-11		1.34			
		20-16		1.28			
		21 years and overs		1.30			
	Daily working hours (h)	6 hours		1.42	2.637	0.076	----
		7hours		1.37			
		1 8 hours every 3 days		1.29			
		AL Salam		1.42	1.370	0.241	----
		Ibn ceina		1.34			

	Name of the hospitals where you work	Alba tool	1.41			
		Mosul general	1.27			
		Ibn alatheer	1.38			
		Alkhansaa	1.42			
	The workplace is inside the hospital	Children lounges	1.34	2.883	0.039	4
		Emergency unit	1.35			3
		Intensive care unit	1.46			1
		Neonatal unit	1.45			2
	Monthly income	Less or equal to 500 IQ D	1.40	1.295	0.278	----
		600-1000000 IQ D	1.38			
		More than 1000000 IQ D	1.30			

Table (4-9) shows differences between each category and demographic information. The table also shows the gender affect the female more exposure to psychological factors. The table also show the nurses affect by the house typing who was rent more affect by psychological factors. The nurse who have wife not employ have high percentage of psychological factors. The table also shows the workplace have height exposure to psychological factors is the intensive care unit.

Table (4-10) analyzing the information of physical and health factors differences between categories of demographic.

Factors	Variable	Categories	Mean	ANOVA F-statistic	P-value	Rank
The physical and health factors	Age	20-24	1.51	1.339	0.253	----
		25-29	1.51			
		30-34	1.43			
		35-39	1.44			
		40-44	1.47			

		45 years and more		1.54			
	Gender	Male		1.47	0.846	0.360	----
		Female		1.50			
	Place of residence	Rural		1.54	3.306	0.072	----
		Urban		1.47			
	Housing type	Ownership		1.48	0.042	0.838	---
		Rent		1.49			
	Marital status	Single		1.49	0.263	0.852	----
		Married		1.48			
		Divorced		1.53			
		A widower		1.44			
	Profession	Wife profession	employee	1.48	0.285	0.592	---
			Not employed	1.45			
		Husband profession	Employee	1.47	2.857	0.097	----
			Not employed	1.54			
	Numbers of family members	5-1		1.47	2.202	0.141	----
		10-6		1.51			
	Educational level	Nursing preparatory school		1.46	0.848	0.471	----
		Diploma		1.49			
		Bachelors		1.48			
		Master		1.61			
	Years of services	5 years and less		1.49	0.504	0.733	----
		10-6		1.44			
		15-11		1.48			
		20-16		1.51			
		21 years and overs		1.45			
	Daily working hours (h)	6 hours		1.47	0.180	0.835	----
		7 hours		1.49			
		1 8 hours every 3 days		1.50			

	Names of the hospitals where you work	AL Salam	1.52	3.347	0.007	2
		Ibn ceina	1.51			3
		Alba tool	1.43			6
		Mosul general	1.61			1
		Ibn alatheer	1.44			5
		Alkhansaa	1.46			4
	The workplace is inside the hospitals	Children lounges	1.50	0.552	0.648	----
		Emergency unit	1.46			
		Intensive care unit	1.48			
		Neonatal unit	1.47			
	Monthly income	Less or equal to 600 thousand	1.50	1.255	0.289	----
		600-1000000	1.47			
		More than 1000000	1.53			

The table appearing the physical and health factors the nurse more affected in the Mosul general hospitals.

Table (4-11) analyzing the information of genetic factors differences between categories of demographic.

Factors	Variables	Categories	Mean	ANOVA F-statistic	P-value	Rank
Genetic factors	Age	20-24	1.59	3.292	0.008	3
		25-29	1.81			1
		30-34	1.68			2
		35-39	1.58			4
		40-44	1.36			6
		45years and more	1.40			5
	Gender	Male	1.45	16.014	0.000	2
		Female	1.71			1
	Place of residence	Rural	1.62	0.056	0.813	----
		Urban	1.60			

	Housing type	Ownership		1.59	0.616	0.434	----
		Rent		1.65			
	Marital status	Single		1.55	1.981	0.121	----
		Married		1.59			
		Divorced		2.00			
		A widower		1.71			
	Profession	Wife profession	Employee	1.45	0.055	0.816	----
			Not employed	1.47			
		Husband profession	Employee	1.56	0.002	0.967	----
			Not employed	1.56			
	Number of family member	5-1		1.65	2.318	0.131	----
		10-6		1.55			
	Educational level	Nursing preparatory school		1.66	0.299	0.826	----
		Diploma		1.58			
		Bachelors		1.61			
		Master		1.50			
	Years of service	5 years and less		1.70	3.352	0.012	1
		10-6		1.62			2
		15-11		1.52			3
		20-16		1.38			5
		21years and more		1.50			4
	Daily working hours (h)	6 hours		1.60	4.479	0.013	2
		7 hours		1.54			3
		18 hours every 3 day		1.80			1
	Names of the hospitals where you work	AL Salam		1.93	4.832	0.000	1
		Ibn ceina		1.38			6
		Alba tool		1.80			2
		Mosul general		1.61			4
		Ibn alatheer		1.52			5
		Alkhansaa		1.70			3

	The workplace is inside the hospitals	Children lounges	1.61	3.466	0.019	2
		Emergency unit	1.45			4
		Intensive care unit	1.54			3
		Neonatal unit	1.76			1
	Monthly income	Less or equal to 500 thousand IQ D	1.68	8.357	0.000	1
		600-1000000 IQ D	1.65			2
		More than 1000000 IQ D	1.31			3

Table (4-11) appearing age category as high risk to genetic factors is the category (25-29). Also shows female more difference the mean 1.71 and genetic factors more in nurses who years of service 5or less than the mean was 1.70.

Table (4-12) analyzing the information of environmental factors differences between categories of demographic.

Factors	Variable	Categories	Mean	ANOVA F-statistic	P-value	Rank
Environmental Factors	Age	20-24	1.50	3.138	0.011	4
		25-29	1.59			1
		30-34	1.58			2
		35-39	1.52			3
		40-44	1.44			6
		45years and more	1.45			5
	Gender	Male	1.50	4.144	0.044	2
		Female	1.56			1
	Place of residence	Rural	1.55	0.346	0.557	1
		Urban	1.53			2
	Housing type	Ownership	1.52	3.694	0.057	---
		Rent	1.58			
	Marital status	Single	1.51	0.691	0.559	----

		Married		1.54			
		Divorced		1.64			
		A widower		1.55			
	Profession	Wife profession	Employee	1.46	1.96	0.169	---
			Not employed	1.54			
		Husband profession	Employee	1.56	0.002	0.967	----
			Not employed	1.57			
	Number of family member	5-1		1.56	2.779	0.098	----
		10-6		1.51			
	Educational level	Nursing preparatory school		1.50	0.751	0.524	----
		Diploma		1.54			
		Bachelors		1.56			
		Master		1.47			
	Years of service	5 years or less than		1.57	2.003	0.099	----
		10-6		1.54			
		15-11		1.53			
		20-16		1.46			
		21 years and more		1.45			
	Daily working hours (h)	6 hours		1.57	2.222	0.113	----
		7 hours		1.50			
		18 hours every 3 day		1.57			
	Names of hospitals where you work	Al salam		1.58	0.482	0.789	----
		Ibn ceina		1.52			
		Alba tool		1.56			
		Mosul general		1.53			
		Ibn alatheer		1.55			
		Alkhansaa		1.50			
	The workplace is	Children lounges		1.54	2.614	0.055	----
		Emergency unit		1.47			

	inside the hospitals	Intensive care unit	1.55			
		Neonatal unit	1.59			
	Monthly income	less or equal to 500 thousand IQD	1.58	4.371	0.015	1
		600-1000000 IQD	1.55			2
		More than 1000000 IQD	1.44			3

The table shows age categories more affected by environmental factors (25-29). the table also show the gender the female more affect than male the mean 1.59. the table also show the place residence affect by environmental factors right side more than left side the mean was 1.55.

Table (4-13) analyzing the information of feeling and positive symptoms differences between categories of demographic.

Axis	Variable	Categories	Mean	ANOVA F-statistic	P-value	Rank
Feeling and positive symptoms	Age	20-24	3.31	0.566	0.726	----
		25-29	3.21			
		30-34	3.12			
		35-39	3.35			
		40-44	3.17			
		45 and more	3.38			
	Gender	Male	3.21	0.083	0.774	----
		Female	3.24			
	Place of residence	Rural	3.25	0.031	0.861	----
		Urban	3.23			
	Housing type	Ownership	3.22	0.066	0.798	----
		Rent	3.25			
	Marital status	Single	3.01	2.365	0.075	----
		Married	3.31			
		Divorced	2.90			

		A widower		3.04			
	Profession	Wife profession	Employee	3.34	1.009	0.321	----
			Not employed	3.14			
		Husband profession	Employee	3.39	0.348	0.558	----
			Not employee	3.31			
	Number of family member	5-1		3.26	0.529	0.468	----
		10-6		3.19			
	Educational level	Nursing preparatory school		3.15	0.979	0.405	----
		Diploma (Technician nurse)		3.31			
		Bachelors (university nurse		3.20			
		Master		2.86			
	Years of service	5 years or less		3.21	0.096	0.984	----
		10-6		3.27			
		15-11		3.21			
		20-16		3.28			
		21 years and over		3.30			
	Daily working hours (h)	6 hours		3.36	1.525	0.222	----
		7 hours		3.16			
		1 8 hours every 3 day		3.20			
	Names of the hospitals where you work	AL Salam		3.42	1.087	0.372	----
		Ibn ceina		3.19			
		Alba tool		3.01			
		Mosul general		3.22			
		Ibn alatheer		3.19			
		Alkhansaa		3.41			
	Workplace is inside the hospitals	Children lounges		3.26	0.360	0.782	----
		Emergency unit		3.13			
		Intensive care unit		3.25			

		Neonatal unit	3.27			
	Monthly income	Less or equal to 500 thousand IQD	3.01	3.018	0.053	----
		600-1000000 IQD	3.32			
		More than 1000000 IQD	3.21			

The table shows no effect of demographic data on feeling positive symptoms.

Table (4-14) analyzing the information of feeling and negative symptoms differences between categories of demographic.

Axis	Variables	Categories		Mean	ANOVA F-statistic	P-value	Rank
Feeling and negative symptoms	Age	20-24		3.09	0.825	0.534	----
		25-29		3.00			
		30-34		3.14			
		35-39		3.12			
		40-44		3.06			
		45and more		3.01			
	Gender	Male		3.15	7.515	0.007	1
		Female		3.00			2
	Place of residence	Rural		2.99	1.779	0.185	----
		Urban		3.08			
	Housing type	Ownership		3.06	0.084	0.773	----
		Rent		3.07			
	Marital status	Single		3.10	1.484	0.223	----
		Married		3.05			
		Divorced		2.83			
		A widower		3.02			
	Profession	Wife profession	Employee	3.15	0.217	0.644	----
			Not employed	3.20			

		Husband profession	Employee	2.99	0.170	0.682	----
			Not employed	2.59			
	Number of family members	5-1		3.05	0.079	0.780	----
		10-6		3.07			
	Educational level	Nursing preparatory school		3.01	0.474	0.701	----
		Diploma (Technician nurse)		3.08			
		Bachelors		3.05			
		Master		3.21			
	Years of service	5 years or less		3.04	0.772	0.546	----
		10-6		3.02			
		15-11		3.16			
		20-16		3.07			
		21years and overs		3.08			
	Daily working hours (h)	6 hours		3.11	2.239	0.111	----
		7 hours		3.01			
		8 Hours every 3 day		3.14			
	Name of the hospitals where you work	Al Salam		3.05	0.354	0.879	----
		Ibn ceina		3.09			
		Alba tool		2.96			
		Mosul general		3.06			
		Ibn alatheer		3.08			
		Alkhansaa		3.07			
	Workplace is inside the hospitals	Children lounges		3.09	5.689	0.001	3
		Emergency unit		3.16			1
		Intensive care unit		3.15			2
		Neonatal unit		2.87			4
	Monthly income	Less or equal to 500 thousand IQD		3.14	1.404	0.250	----

Table shows the most gender affect by feeling and negative symptoms is male the mean of 3.15. The sequence of workplace affected by the feeling and positive symptoms the first emergency unit the mean of 3.16 and intensive care unit the mean being 3.15, children lounges the mean being 3.9, the last was neonatal unit being 2.87.

Chapter Five

Discussion

Chapter Five

Discussion

5.1. Discussion of descriptive statistics of depressive symptoms about nurse's sociodemographic data.

The participants of this study have been (119) nurses who were visiting the pediatrics wards of six hospitals in Mosul city. Their age ranges between 20-50 years old. The findings show that the highest percentage of the sample (35%) the age group of (25-29) years old, table [4-1].

Regarding the study participants' gender. The results demonstrated that approximately male n49(41%), female n70(59%), This may be related to the type of work, or professional field.

Concerning the study participants' place of residence. The results illustrated that more than half of the sample participants are residence in the urban of the Mosul city highest percentage (80%) while the rural (20%) Table [4-1]. This result is due to the proximity of the distance and the low cost of transportation within the city, and to estimate the nurses lived in poor areas. who mentioned that the most of participants were resident in urban areas.

On the other hand, the results showed that most of the participant's marital status was the highest percentage of nurses was married was (75%) and then single was percentage (16%), divorced n4(3%), a widower n 7(6%). This result compatible with (Shen et al.,2023) the married was (58.43%) but unmarried was (26.97%).

Regarding profession of the nurse's wives and husband profession is important to understand impact of the profession on the appearance of depressive symptoms the male nurses their wife profession divided on

employee was percentage n20(41%), not employed was 29(59%), female nurses, husband profession, employee n67(96%), not employed n3(4%) table [4-1] this result disagreement with (Ogungbemi et al.,2024) not concluding profession in their study.

The results also illustrate number of family members it concluding in our study family member categories from (1-5) percentage n69(58%) and other categories from (6-10) was percentage n50 (42%) the big family put on the person additional financial burden this result disagree with the (Li et al.,2023) not involve in his study.

On the other hand, the results showed that most of the participants are educational level of nurse's highest percentage is diploma (n) 51 (43%) and bachelors n 47 (40%) this result compatible with (Ali et al.,2023) the nurses percentage of institute was (78.1%) and nurses college was percentage (21.9%) indicate diploma more than college nurses. And this agree (El-Sayed et al.,2024) the diploma 3years diploma (47%) and the bachelor's percentage (14%).

Concerning the frequency of years of service can affect the psychological status of nurses the results illustrate that a large percentage of is 5 years or less was (51%) and the lowest percentages is 21 years and over being (5%) this agree with the (El-Sayed et al.,2024) the years' experience the highest was (1-10) years percentage was (48.8%) and (10-20) years percentage was (20.9%) and more than 20 percentages was (30.3%). In other hand this agree with (Shen et al.,2023) years of work experience < 10 percentage was (44.38%) and from 10-19 was 41.57%, the last was (20-38) percentage (14.04%).

Regarding daily working hour the high percentages is 7 hours N60(50%) 35 hours' weekly and 6 hours being percentage of N38 (32%) and the 18 hours every 3 day being percentage of N 21 (18%) 40 hours

weekly this incompatible with (Shen et al.,2023) less than 8hours was percentage (27.53%) more than (8 -10) hours was (72.47%). The daily working can give indicators stressful time during the day.

Furthermore, the majority of participants in this study were the family income, monthly income in our study Offers financial resources that influence decisions regarding housing, education, child care, food, and medical care. Highest percentage of the participant received about (600-1000000) 61%, and $\leq 500^{th}$ percentages as %23 and the last more than 16%.

5.2.1 The percentage of depressive symptoms among nurses of pediatrics wards.

Table (4-2) explain the total mean of (119) and percent of sample the highest percentage of sample are appearing suffer from moderate level of depressive symptoms n (84.2)84.2%, and seconds level of nurses appearing severe depressive symptoms n (14) 11.7%, the third level nurses have mild depressive symptoms n (4) 3.3%. this result, unfortunately, there are no previous research data to support this finding

5.2.2 Discussion of descriptive statistics of psychological factors of depressive symptoms.

Table (4-3) shows psychological factors of depressive symptoms**,** this study search for associated factors related depressive symptoms psychological factors consist of eleven question each question described major depressive characteristic can affect the nurses at the total the nurses being have psychological factors participant percentage 55%.

Regarding being exposed to psychological violence, the nurse's exposure to psychological violence participants being percentages of n 67(56%), this result, compatible with (Gong et al.,2014) exposure to

conflicts and violence was reported by 62.1% of participants. The relationship between depression symptoms and work-related issues revealed that workplace abuse significantly predicted nurses'. Nurses frequently experienced workplace aggression SDS scores were greater than those who rarely or not faced such incidents. Prior studies have shown that violence among healthcare setting is indicators of mental issues, such as depressive symptoms, among affected staff.

As a female nurse, have you experienced depression after pregnancy, nurses show postpartum depression 71%. This result is compatible with (Mohammed et al.,2024) this study found a notable link between gender and depressive symptoms among healthcare workers. Specifically, females were twice as likely to experience depression features contrasted to males. This outcome aligned with research performed in South Africa, (Pool et al.,2024) and Bangladesh (Hasan et al., 2022). our study found a notable link between gender and depressive symptoms among healthcare workers. Specifically, females were twice as likely to experience depression clinical manifestations contrasted to males. This result agrees with research performed in Ethiopia. (Graves et al.,2021). Moreover, women tend to experience more depression symptoms than men due to hormonal fluctuations during stages such as puberty, pregnancy, menstruation, and menopause (Albert et al.,2015). Additionally, in Muslim countries, women often juggle social and cultural duties along with their expert obligations, can contribute to stress and depressive symptoms (Fatima.,2023).

Regarding do you have difficulty performing work question, nurses show they have difficult in working 43% they have difficulty in their work, unlike other professionals, nursing staff have more frequent and direct interactions with patients, offering the ongoing care needed by hospitalized

individuals. Our study found that nurses were more likely to experience depressive symptoms than healthcare workers in other roles, a finding also supported by research in Ethiopia (Ayalew et al.,2021) and Japan (Awano et al.,2020). Consequently, these findings highlight the need to focus on nursing staff to identify, and ideally avoid depression features through regular evaluation (Conti et al.,2020).

Regarding the fifth question have you seen a mental health professional, nurses appearing they are not visiting mental health psychologist 61%, indicate height risk to aggravating the suffering of depressive symptoms most nurses not visiting the mental professional Because of society's view and feelings of shame and stigma, unfortunately, there are no previous research data to support this finding.

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Regarding do you smoke cigarettes and hookahs question, nurses have great risk factors to depressive symptoms, 65%, p- value 0.001, this result incompatible with (Wang et al.,2021) found smoking habits the p-value before corona 0.451, and after corona the p-value 1.000.and the result in the table [4-2] in compatible with (Cheung et al.,2015) Smoking status 0.168.

Regarding do you compare your life to others question, nurses compare them self with other shows 60%, comparison with other leads to a loss of enjoyment of the present. Whoever preoccupies himself with following up on the conditions of others misses the opportunity to enjoy the present moment and what it gives him, and leads to self-harm, Preoccupation with comparing ourselves to others leads to a deterioration in the mood, which is evident on the face, and thus whoever compares himself to others loses his attractiveness. This result, unfortunately, there are no previous research data to support this finding.

Regarding are you satisfied with your job question, nurses satisfied with their work 61%, the p-value 0.025, and do you like working as a nurse, nurses like their work, 58%, working as a nurse is another risk factors to have depressive symptoms the participants not like working as nurse because heavy working being percentages of 58%. Life satisfactions another factors nurses who compare life to other may at risk to depressive symptoms participants 60% said yes. This result is compatible with (Mohamed et al.,2024) nurses is the profession height risk to depressive symptoms being percentages of 52.8% nurses face an increased distress of mind due to work overload, overnight shifts, and interaction with medically vulnerable patient in clinical settings (zhang et al.,2020).

5.2.3 Discussion of descriptive statistics of physical and health risk factors about depression.

Table [4-4], show the total percentages of nurses appears physical and health risk factors 51%. Regarding have you suffered from obesity question, the table shows the nurses suffering from increased weight gain and obesity, 64%, is a high percentage, this result compatible with (Frank et al.,2022). The depressive symptoms associated with obesity observed in this research cannot be linked to any existing diagnostic symptom profiles. Found two obesity-related symptoms felt gloomy' and little desire in doing anything' align with the main characteristics of major depressive disorder, namely anhedonia (Diminished enjoyment or enthusiasm) (American Psychiatric Association., 2013).

Regarding do you have health problems and constant pain resulting from a specific disease question, nurses have problems with persisting pain being percentage of 65%, the p-value 0.002 there is association between persistent pain and increase risk of depressive symptoms. In nurses, this result compatible with (Aldroubi et al.,2023) 90 (57.7%) of them have had

LBP within the last year nurses are more vulnerable because of the nature of their work.

Regarding do you have a history of anorexia's question, 69% of nurses indicated a positive history with sever anorexia nervosa, this result found relationship between anorexia nervosa and depression this compatible with (APA., 2022) Anorexia Nervosa involves refusing to keep body weight at or above a healthy minimum level to one's height and age, accompanied by a distorted perception of body weight or shape. mood disorders Symptoms, especially depressive disorder, are often linked with eating disorder, though exact essence of this relationship remains not clear.

Regarding do you exercise's question, this study has found that exercise another risk factors can be contributing to depressive symptoms among nurses the lack of doing exercise the whole percentages of nurses not doing exercise as (69%) while the nurses doing exercise being percentage of (37%), this result compatible with (Mohamed et al.,2024) discovered that healthcare professionals who engaged in physical activity regularly were significantly less likely to experience depression features. Regular physical activity can reduce depression through various mechanisms, including the release of endorphins, initiation of thermogenesis, activation of motor pathways in certain brain regions, and the release of neurotransmitters like serotonin and dopamine (Silva et al.,2020).

Regarding do you suffer from sleep problem question, another risk factors of depressive symptoms sleeping, depression and sleep problems are closely linked. People with insomnia, nurses answer that have problems with sleeping being percentage of 56%, this result incompatible with (Cheung et al.,2015) nurses have sleep problems 77.9 %, and the result in table [4-3] compatible with (Mohamed et al.,2024) was 55.5% suffer from

sleep disorder research shows that individuals with depression often face sleep disturbances. Conversely, inadequate sleep can raise stress levels, which may harm well-being and aid to the development of psychological disorders. As a result, the correlation between depressive disorder and sleep is likely mutual, with depression potentially causing sleep disturbance and vice versa (Yasugaki et al., 2023). In our study, we found that poor sleep durations were linked to worsen levels of depression symptoms among health workers.

Regarding, do you take medications and narcotics question, another risk factors substance abuse nurses more risk to take medication and narcotics in this study found the nurse's not take drug the percentage answer no being as 81%, and whose answer yes being percentages of 19%, depression can elevate the risk of chronic conditions, including substance use disorder. Approximately one-third of people with clinical depression use substances. According to (Mohamed et al.,2024), the percentage of people who used substances was 12.5%, whereas the percentage of those who indicated they didn't was 87.5%. In line with to the current research, health worker using substances are more likely to experience depressed symptoms, which is consistent with earlier findings (Alemu et al., 2024).

5.2.4 Discussion of descriptive statistics of genetic risk factors about depressive symptoms.

The table [4-5], genetic factors 39%, the p-value 0.00 this result is significant. The table also show nurses has any one in your family suffered from depression before, 49% of participants have mental health history, this result compatible with (Mohamed et al.,2024) (15.7%) who have family history while (84.3%) a genetic predisposition to mental illness suggests an increased likelihood of developing psychological disorders (Boland et al., 2021). The current study discovered that pedeiative nurses

with a family record of psychological disorder are more likely to have depressed features, which is consistent with research performed in Ethiopia (Belete A and Anbesaw, 2021).

Regarding, Did any of your family members commit suicide question. Suicide attempt and thought can lead to depressive symptoms in our result (29%) with p-value 0.000, have a history of suicidal attempt, table [4-4], this result is consistent with (Bertussi et al.,2024), a history of suicide is present in about 3% of individuals with chronic pain or illness who are at risk of contemplating suicide. The increased suicide risk among nursing professionals is troubling, because it is frequently coupled with the stigma of requesting help, as well as inadequate access to support resources.

5.2.5 Discussion of descriptive statistics of environmental risk factors about depressive symptoms.

The table [4-6] shows environmental risk factors, the p-value 0.018 indicate the nurses have environmental risk factors. Regarding, does anyone in your family have a history of drinking alcohol question, the table show,37% of participants consuming alcohol, and the 63% not consuming, this result, compatible with (Junqueira et al.,2018) 35.8% of participants engaged in binge drinking, while 21.2% exhibited abusive alcohol use or probable dependency. Additionally, 6.6% of participants were active users. These figures indicate that the problematic use of psychoactive substances among healthcare professionals is like to that of the public (Oliveira et al.,2013).

Regarding, do you been exposed to harassment while working, exposure to harassment while working is another environmental risk factors can make problems in caring of patient being percentage of 19% of nurses this result a compatibility with (Luo etal., 2022) Sexual assault is a

prevalent traumatic event, affecting 17–25% of individuals in the U.S., and depressive symptoms are commonly observed following such incidents (Luo etal., 2022).

Regarding, do you have trouble communicating and relationship with your co-workers question, communicating and relationship of nurses with the family and friends in ours study found nurses have problems with coworkers being percentage of (33%), and the nurses have problems with family being percentage of (34%) working in competitive environment being percentage of (65%), this result, table [4-5], compatible with (El-Sayed et al.,2024), the presence of few social networks was found to be a significant risk factor for depression. (Hsieh et al., 2018) showed that social support by family was protective against depressive symptoms in psychiatric nurses. This research found relationship with family another factors impact the nurse's.

Regarding, do you suffer from bullying at work question, bullying is another risk factors, nurse bullying is a widespread, ingrained issue that starts long before nursing school and persists throughout a nurse's professional life. 61% exposed to bullying, this result, compatible with (Edmonson et al.,2019). Nurse bullying takes place in nearly every healthcare setting and department, ranging from patient floors to executive offices. In a 2018 study, 60% of nurse managers, directors, and executives reported experiencing it (Hampton, D.,2019).

Regarding, do you depend on fast food question, fast food and depressive symptoms from the result, table [4-5], found most participants depending on fast food being percentage of 73% this result compatible with (Ejtahed et al.,2024). A study found that a high intake of junk food was strongly linked to a higher risk of depression. Additionally, increased junk food consumption was associated with a greater likelihood of depression

and psychological stress. This connection between consuming low-nutrient foods and mental health issues has been shown in various studies across different populations and cultures (van der et al., 2022). The relationship between food and mood highlights well-established pathways, indicating that poor eating habits and inadequate nutrition are connected to a range of mental health problems and behavioral issues in adults.

5.3.1 Discussion of descriptive statistics zung self –Rating depression scale of depressive symptoms the feeling and positive symptoms.

The findings of this study demonstrate that there are significant symptoms in nurses, table [4-7]. The result found first item nurses answer on (mind is as clear as it used to be number of nurses) said always was (26) being percentage of 22%, nurses said most of time (27) being percentage of 23%, some of times (22) being percentage of 19%, nurses said Rarely (28) being percentage of 24%, nurses said never number (16) being percentage of 13% the mean of percentage 3.16 moderately depressed. this study is disagreeing with (Vélez-et al.,2016) they found confusion, was 3.28 (3.22-3.33). symptoms associated with challenges in concentration and decision-making, confusion or lack of mental clarity, and slowed physical or mental responses. these symptoms appear to reflect changes in cognitive function, potentially resulting from reduced focus and slower reaction times.

Regarding psychomotor (I find it more comfortable to do what I'm familiar with question, nurse's response to said always 34 (28%), most of time 26 (22%), some of time 32 (27%), rarely 13 (11%), never 14 (12%), mean 3.45, mildly depressed this result in compatible with (Vélez et al.,2016) mean score 3.29 (3.24-3.34) Psychomotor retardation has been recognized as a key aspect of depression since ancient times.

Concerning “Core Depressive, Hopelessness; I feel hopeful about the future, the nurse's response said always n28 (24%), n 28 (24%), n 30

(25%), rarely n 20 (17%), never 13 (11%), the mean 3.32, moderately depressed. This not line with (Belete and Anbesaw.,*2022)* not at all n 200 (79.4%), several days' n 43(17.1%), more than half the day's n 7 (2.8%), nearly every day n 2 (0.8).

In other hand, regarding "Cognitive, Indecisiveness; I find it easy to make decisions, found nurse's response said always n 20 (17%), most of times n35 (29%), sometimes 36 (30%), rarely n 12 (10%), never n 10 (8%). The mean 3.29, moderately depressed, this result compatible with (Belete and Anbesaw.,*2022)* difficulty focusing on tasks, for instance engaging in reading book, etc. not at all n 182 (72.2%), several days' n 34 (13.5%), more than half the day's n 27(10.7%) nearly every day n9 (3.6%).

Regarding **"***Core Depressive"* Personal devaluation (I feel useful and people need me) nurse's response, always n 31(26%), most of time n 30 (25%), sometimes 36(30%), rarely n 12(10%), never 10(8%), the mean 3.50, mildly depressed, this result incompatible with **(**(Belete and Anbesaw.,*2022)* worthless feeling or like you can't do anything right, not at all n217 (86.1), several days n24(9.5%), on the majority of days n8(3.2%), almost daily n 3(1.2).

Regarding Core Depressive" Emptiness; (My life is pretty full) nurse's response, always n 17(14%), most times 24 (20%), sometimes the most answer 43(36%), rarely 13(11%), never 22(19%), the mean 3.01, moderately depressed, this result un fortunately, there no previses date to support this finding.

Regarding core depressive dissatisfaction; (I still enjoy the things I used to do), nurses response, always n16 (13%), most of time n27(23%), sometimes n39(33%), rarely n18(15%), never n19(16%), the mean 3.03, moderately depressed**,** this result compatible with (Belete and Anbesaw.,*2022)* Little interest or pleasure in doing things not at all

n176(69.8%), several days' n 47(18.7%), on the majority of days n24(9.5%), almost daily n5 (2.0%) this result unfor.

In other hand, diurnal variation; (Morning is when I feel the best), nurse's response, always n31(26%), most of time n 41(35%), some of times 26(22%), rarely n9 (8%), never n12(10%), the mean 3.59, mildly depressed, this result this result unfortunately.

Regarding Somatic, decreased appetite;(I eat as much as I used), nurse's response, always n31 (26%), most of time n30 (25%), sometimes n35(29%), rarely n10(8%), never n13(11%), the mean 3.47, mildly depressed, this result unfortunately.

Regarding core depressive, decreased libido;(I still enjoy sextual intercourse), nurse's response, always n15(13%), most of time n18(15%), sometimes n31(26%), rarely n8(7%), never n47(40%), the mean score 2.55, moderately depressed, this result unfortunately.

Regarding the macro level of feeling and positive symptoms, the mean of percentage female nurses 20.9,24.1 ,27.6, male nurses 12.4, 15.0, p-value 0.000, moderately depressed, the men more depressed, this result, unfortunately, there are no previous research data to support this finding.

5.3.2 Discussion of descriptive statistics zung self –Rating depression scale of depressive symptoms the feeling and negative symptoms.

The table (4-8) regarding Core Depressive" Item 1: Depressed affect; Low mood; (I feel sad and downcast), nurse's response scale, always n5 (4%), most of time n6 (5%), sometimes n63 (53%), rarely n24 (20%), never n21 (18%), the mean 2.5798, moderately depressed, this result unfortunately**.**

Concerning the frequency of Crying episodes; (I experience crying spells or feel as though I might cry), nurse's response scale, always n6

(5%), most of time n15(13%), sometimes n 42(35%), rarely n 31(26%), never 25(21%), the mean 3.4538, severely depressed, this result unfortunately.

Regarding anxiety, sleep disturbance, (I have difficulty sleeping at night), nurse's response scale, always n6(5%), most of time n21(18%), sometimes n41(35%), rarely n 22(19%), never n 29(24%), the mean 3.3950, severely depressed, this result compatible with (Belete and Anbesaw.,*2022)* Difficulty falling asleep, staying asleep, or oversleeping, not at all n178 (70.6%), several day n40(15.9%), On most days n23 (9.1%), Almost every day n11 (4.4%), unfortunately.

Regarding somatic, Unintended weight loss, (I've observed that I'm shedding pounds), nurse's response scale, always n9 (8%), most of times n 14(12%), sometimes n 32(27%), rarely n33(28%), never 31(26%), the mean 3.5294, severely depressed, this result unfortunately.

Regarding Constipation (I suffer from constipation), nurse's response scale, always n4(3%), most of time n9(8%), sometimes n40(34%), rarely n27(23%), never n39(33%), the mean 2.2605, moderately depressed, this result.

Regarding somatic, Tachycardia, (My heart beats faster than usual), nurse's response scale, always n3 (3%), most of times n16 (13%), sometimes n39 (33%), rarely n32 (27%), never n29 (24%), mean 3.5714, severely depressed, this result.

Regarding Cognitive" Item 7: Fatigue; (I feel exhausted without any clear reason), nurse's response scale, always n10(8%), most of times n22(19%), sometimes n 51(43%), rarely n 24 (20%), never n12(10%), mean 3.0504, moderately depressed, this.

Concerning Anxiety" Irritability; (I am more irritable than usual), nurse's response scale, always n12 (10%), most of times n21(18%), sometimes n 38(32%), rarely n 15(13%), never n33(28%), mean 2.6975, moderately depressed, this result.

Regarding Anxiety" Restlessness; (I feel fidgety and unable to remain still), nurse's response scale, always n18 (15%), most of times n30(25%), sometimes n 43(36%), rarely n 14(12%), never n14(12%), mean 2.7983, moderately depressed, this result unfortunately when nurses have anxiety loss their ability to stay calm every sells in body give him alarm to being stable and still unfortunately.

Regarding core depressive Item 10: Suicidal thoughts; (I believe others would be better off if I weren't here), nurse's response scale, always n9 (8%), most of times n15 (13%), sometimes n32 (27%), rarely n19 (16%), never n44 (37%), mean 2.3782, moderately depressed, this result unfortunately.

Regarding factors (I did not seem to be able to feel positive emotion), nurse's response scale, always n7(6%), most of times n21(18%), sometimes n 46(39%), rarely n 22(19%), never n23(19%), mean 2.7227, moderately depressed, this result incompatible with (Li et al.,2023) Exhaustion (0.807), This study identified a strong link between exhaustion and depressive symptoms, showing that nurses who experienced higher levels of burnout reported more depressive symptoms, Burnout has received considerable attention as a major occupational risk for nurses due to its high prevalence (Y. Ding et al., 2015).

Regarding physical activity (I found it difficult to take initiative in doing things), nurse's response scale, always n6 (5%), most of times n27(23%), sometimes n 34(29%), rarely n 27(23%), never n23(25%), mean

2.6807, moderately depressed, this result compatible with (Cheung et al.,2015) lower 1.51 and upper 3.78 Physical activity level and aOR 2.383.

Regarding (I felt like I did not have anything to look forward to), nurse's response scale, always n4 (3%), most of times n 22(19%), sometimes n 37(31%), rarely n25 (21%), never n31(26%), mean 2.5210, p-value 0.000, moderately depressed, this result incompatible with (Junqueira et al.,2018), Feeling sad, depressed and without hope OR adjusted 2,16, CI95% (0,82-5,66), p -value 0,118.

Regarding (I felt lonely), nurse's response scale, always n6 (5%), most of times n22 (19%), sometimes n39 (33%), rarely n17 (14%), never n35 (29%), mean 3.4454, p-value 0.000, severely depressed, this result compatible with (Rico-yribe etal., 2018), Loneliness is a key indicator of societal welfare and could contribute to a range of psychological and physiological health issues. If it not unaddressed, Loneliness can seriously affect both psychological and physiological health. Study conducted in India, there is limited research examining the relationship between psychiatric and physical disorders and loneliness, with most studies focusing on elderly individuals.

Regarding (I lost feeling of enthusiasm for anything), nurse's response scale, always n4(3%), most of times n28(24%), sometimes n 33(28%), rarely n 16(13%), never n38(32%), mean 3.4706, severely depressed, this result, unfortunately, there are no previous research data to support this finding. Anhedonia, a core feature of depression.

Regarding, (I felt like I had little value as a person), nurse's response scale, always n9 (8%), most of times n18 (15%), sometimes n22 (19%), rarely n20 (17%), never n50 (42%), mean 3.7059, severely depressed, this result unfortunately, there are previous research date to support this finding.

Regarding (I felt like life had no meaning), nurse's response scale, always n9 (8%), most of times n19 (16%), sometimes n28 (24%), rarely n19 (16%), never n44 (37%), mean 2.4118, moderately depressed, this result, unfortunately, there are no previous research data to support this finding.

Regarding, speech, (I felt like talking less than usual), (I was speaking more slowly than usual), nurses talk less, always n7(6%), most of times n22(19%), sometimes n 26(22%), rarely n 25(21%), never n39(33%), mean 3.5630, severely depressed, this result, unfortunately, there are no previous research data to support this finding, speaking more slowly than usual,), nurse's response scale, always n9(8%), most of times n14(12%), sometimes n 38(32%), rarely n 25(21%), never n33(28%), mean 3.4958, severely depressed, this result, unfortunately, there are no previous research data to support this finding, my opinion's isolation effect of depressive symptoms make them talk more slowly and less than usual.

Regarding, (I thought bad things would happen to me), nurse's response scale, always n4(3%), most of times n20(17%), sometimes n 36(30%), rarely n 20(17%), never n39(33%), mean 2.4118, severely depressed, this result, unfortunately, there are no previous research data to support this finding.

Regarding the macro level of feeling and negative symptoms, the mean of percentage female nurses 6.10,16.20,32.00, male nurses 19.30,26.40, p-value 0.017, severely depressed, the men more depressed, this result, unfortunately, there are no previous research data to support this finding.

5.4.1 Analyzing the information of psychological factors differences between categories of demographical data.

Table [4-9] shows that 119 nurses were enrolled and distributed based on psychological domain items. It appeared that the statement of

psychological affecting female nurses is the first rank, mean1.45, the male is second rank, mean 1.26. The statement housing type, rent the first rank is more affecting in psychological factors, mean 1.45, and the second rank ownership, mean 1.35. Profession, wife profession not employed means 1.32, the first rank affected, employee the second rank, means 1.19. Number of family member first rank categories (1-5), means 1.41, second rank categories (6-10), means 1.32. the workplace is inside the hospitals, intensive care unit means 1.46 the first rank, neonatal unit means 1.45, emergency unit mean1.35, children lounges means 1.34. this result, unfortunately, there are no previous research data to support this finding.

5.4.2 Analyzing the information of physical and health factors differences between categories of demographic.

The hospitals that more affected by physical and health factors, Mosul general hospitals means 1.61, AL Salam means 1.52, ibn ceina 1.51, Alkhansaa 1.46, ibn alatheer 1.44, alba tool means 1.43. other result shows no difference. This result, unfortunately, there are no previous research data to support this finding.

5.4.3 Analyzing the information of genetic factors differences between categories of demographic.

Age variable it found that affected by genetic age categories the first rank 25-29 means 1.81, the second rank 30-34 means 1.68, the third rank 20-24 means 1.59, the forth rank 35-39 means 1.58, the fifth rank 45 years and more 1.40, the sixth rank 40-44 means 1.36. Gender variable it found female more affected than male by genetic factors female means 1.71 the first rank, male mean the second rank 1.45. Years of service of nurses have 5 years and less mean 1.70 the first rank, the second rank 6-10 years of service 1.62, the third rank11-15 years mean 1.52, the fourth rank16-20 years 1.38, the fifth rank 21years and more 1.50. Daily working hours (h)

the first rank 18 hours every 3 days' mean 1.80, the second rank 6 hours mean 1.60, the third rank 7 hours' mean 1.54. The hospitals that more affected by genetic factors, the first rank AL Salam means 1.93, the second rank alba tool means 1.80, the third rank Alkhansaa 1.70, the fourth rank Mosul general hospitals means 1.61, the fifth rank ibn alatheer 1.52, the six rank ibn ceina 1.51. The workplace is inside the hospitals the first rank neonatal unit mean 1.76 children lounges mean1.61, then intensive care unit 1.54, emergency unit mean 1.45. Monthly income of nurses affected by genetic factors, the first rank less than or equal to 600 thousand mean 1.68, the second rank from 600-1000000 means 1.65, the third rank more than 1000000 was 1.31. This result, unfortunately, there are no previous research data to support this finding.

5.4.4 Analyzing the information of environmental factors differences between categories of demographic.

Age variable it found that have been affected by environmental factors, age categories [25-29] mean 1.59 the first rank, the second rank [30-34] mean 1.58, [35-39] mean 1.52, the third rank, the fourth rank [20-24] mean 1.50, the fifth rank 45years and more mean 1.45, the sixth [40-44] mean 1.44, the p-value 0.011. Gender variable it found female more affected than male, the first rank female, mean 1.56, the second rank male mean 1.50, the p-value 0.000. Place of residence living in the rural of Mosul city, found environmental factors affected mean 1.55 the first rank more than those living in urban mean 1.53. Monthly income of nurses affected by environmental factors, less than or equal to 600 thousand mean 1.58 the first rank, from 600-1000000 means 1.55 the second rank, then more than 1000000 was 1.44 the third rank, the p-value 0.015. This result, unfortunately, there are no previous research data to support this finding.

5.5.5 Analyzing the information of feeling and positive symptoms differences between categories of demographic.

The table [4-13] shows the correlation and difference between the feeling and positive symptoms and demographic, feeling and Positive symptoms appeared in a similar manner with the same effect in all groups. this result, unfortunately, there are no previous research data to support this finding.

5.5.6 Analyzing the information of feeling and negative symptoms differences between categories of demographic.

The table [4-14] shows the correlation and difference between the feeling and negative symptoms and demographic feeling and negative symptoms appeared in a similar manner with the same effect on all groups, except the gender first rank showed affected by the negative symptoms is male the mean 3.15, and the second rank female the mean 3.00, Marital status a single means 3.10, married means 3.05 present of negative symptoms, divorced means 2.83, a widower means 3.02. Single means 3.10 compatible with (N.A. Mohamed et al.,2023), Unmarried individuals are more prone to experiencing depressive symptoms because they lack a companion for sharing and ease everyday stresses, leading to a deficiency encouragement in social and the absence of a Social support system (Shin H and Park C.,2022). Additionally, it is commonly believed that marriage can enhance an individual's mental well-being, potentially leading to a lower prevalence of mental health issues (Grundström et al., 2021). The current study found that unmarried healthcare workers (HCWs) are 1.83 times more likely to experience depressive symptoms compared to their married counterparts. Healthcare workers have 1.83 times more likely to have depressed symptoms than married Healthcare workers. the workplace

is inside the hospitals, emergency unit mean 3.16 is the first rank affected due to excessive working and dealing with the appearance of depressive symptoms, the second rank intensive care unit 3.15, the third rank children lounges mean3.09, the fourth rank neonatal unit mean 2.87 this result, unfortunately, there are no previous research data to support this finding.

CHAPTER SIX

Conclusions and Recommendations

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6.1. Conclusions

The findings of the current study have led to the following conclusions:

1-This study proves a significant connection between depressive symptoms and job demands-resources. fatigue, motor issues, and changes in appetite have been identified as key depressive symptoms among nurses.

2- this study proves that pediatric nurses have mild depressive symptoms n(4) 33%.

3- This study proves that pediatric nurses n (104) have moderate depressive symptoms.

4-Pediatric nurses are at risk of depression due to insufficient daily sleep, and poor physical health.

5- This study proves that pediatric nurses n (14) have moderate depressive symptoms.

6- Depressive symptoms among nursing staff at Mosul Hospital are significantly linked to factors such as being female, unmarried, having a family history of mental illness, and current substance use.

7 - This study prove their direct relationship between the demographical date and presence of depressive symptoms.

6.2. Recommendations

It is advised that nursing managers would consider the following:

1- Encourage pediatrics nurses to discover a sense of purpose in their work.

2- Recommend the Nineveh Health Directorate to organize training courses on enhancing resilience at work and managing stress through educational programs and workshops on mental health for pediatrics nursing staff.

3- Fostering and sustaining meaningful relationships with nurses while providing support in their daily tasks.

4- Establishing a collaborative and supportive work environment where colleagues are eager to assist and help one another.

5- Enhancing these adjustable factors could help lower the risk and prevent the worsening of depressive symptoms among nurses.

As, general recommendations the following might be considered:

1. Promoting regular exercise has a positive effect on mental functioning and boosts neural plasticity, it can improve knowledge and adaptability. Physical training including activities such as walking, running, fitness classes, organized sports, are all recommended.
2. Encouraging a healthy diet, especially unprocessed grains and food to improve well-being. On the other hand, processed foods, artificial additives, refined grains, and excessive sugar are associated with poorer mental health outcomes.
3. Establishing healthy sleep habits, such as maintaining regular sleep schedules, creating bedtime routines, limiting screen time before bed, and engaging in daytime exercise, can all enhance sleep quality of cognitive behavioral therapy or other treatments may be beneficial.
4. Enhancing sociable connection with friends, family, coworker, which mitigate the effects of pressure by offering comfort or assistance from others during difficult times.

References

References

المصادر العربية

القران الكريم، سورة طه، الآية رقم (124).

Agyapong-Opoku, G., Agyapong, B., Obuobi-Donkor, G., & Eboreime, E. (2023). Depression and anxiety among undergraduate health science students: A scoping review of the literature. *Behavioral Sciences, 13*, 1002.

Albert, P. R. (2015). Why is depression more prevalent in women? Journal *of Psychiatry* & Neuroscience, *40*(4), 219–221. https://doi.org/10.1503/jpn.150205

Aldroubi, L., Safiah, M. H., Ashabi, K. K. A., Khalayli, N., & Kudsi, M. (2023). Low back pain (LBP) prevalence and its role in depressive symptoms among nurses in Damascus, Syria – a cross-sectional study. *Research Square*. https://doi.org/10.21203/rs.3.rs-2540043/v1

Alemu, S. S., Jarso, M. H., Adem, Z. A., et al. (2024). Prevalence of depression and associated factors among obstetric care providers at public health facilities in the West Arsi Zone, Ethiopia: Cross-sectional study. *PLOS ONE, 19*(6), e0304903. https://doi.org/10.1371/journal.pone.0304903

Al-Hammouri, M. M., & Rababah, J. A. (2023). Work-family conflict, family-work conflicts and work-related quality of life: The effect of rotating versus fixed shifts. *Journal of Clinical Nursing, 32*, 4887–4893. https://doi.org/10.1111/jocn.16581

Alharbi, K. A., Alharbi, A. A., Althunayyan, F. S., Suhaibani, K. A., Alharbi, H. A., Albahouth, I. S., ... & Aljurayyed, A. M. (2023).

References

Anxiety and Depression among the Nursing Staff, Saudi Arabia. *Global Journal of Health Science*, *15*(4), 1-49.

Ali, E. A., Sehlo, M. G., Hussein, R. A., Ali, E. T., & Abdalla, A. M. (2023). Prevalence and correlates of depressive symptoms among nurses during the COVID-19 pandemic. *Egyptian Journal of Neurology, Psychiatry and Neurosurgery, 59*(1), 15. https://doi.org/10.1186/s41983-023-00616-8

Almarhapi, S. A., & Khalil, T. A. (2021). Depression among healthcare workers in North West Armed Forces Hospital-Tabuk, Saudi Arabia: Prevalence and associated factors. *Annals of Medicine and Surgery, 69*, 102681. https://doi.org/10.1016/j.amsu.2021.102681

American Psychiatric Association. (n.d.). *What is depression?* Retrieved January 13, 2023, from https://www.psychiatry.org/patients families/depression/what-is-depression

American Psychiatric Association. (2022). *Diagnostic and Statistical Manual of Mental Disorders* (5th ed., text rev.; DSM-5-TR). Arlington, VA: American Psychiatric Publishing.

Anusuiya, N., Mina, B. P., & A, H. (2021). Dementia syndrome of depression: Diagnostic challenges and clinical relevance. *FOCUS, 19*(3), 308-310.

Atif, K., Khan, H. U., Ullah, M. Z., Shah, F. S., & Latif, A. (2016). Prevalence of anxiety and depression among doctors: The unscreened and undiagnosed clientele in Lahore, Pakistan. *Pakistan Journal of Medical Sciences, 32*(2), 294. https://doi.org/10.12669/pjms.322.10385

Awan, S., Diwan, M. N., Aamir, A., Allahuddin, Z., Irfan, M., Carano, A., et al. (2022). Suicide in healthcare workers: Determinants, challenges,

References

and the impact of COVID-19. *Frontiers in Psychiatry, 12*. https://doi.org/10.3389/fpsyt.2021.792925

Awano, N., Oyama, N., Akiyama, K., et al. (2020). Anxiety, depression, and resilience of healthcare workers in Japan during the coronavirus disease 2019 outbreak. *Internal Medicine, 59*(21), 2693–2699. https://doi.org/10.2169/internalmedicine.5694-20

Ayalew, M., Deribe, B., Abraham, Y., et al. (2021). Prevalence and determinant factors of mental health problems among healthcare professionals during the COVID-19 pandemic in southern Ethiopia: A multicentre cross-sectional study. *BMJ Open, 11*(12), e057708. https://doi.org/10.1136/bmjopen-2021-05770818

American Psychiatric Association. (2022). Diagnostic and statistical manual of mental disorders (5th ed., text rev.; DSM-5-TR). American Psychiatric Publishing

Among nurses in public hospitals in southern China: A cross-sectional study. *Scientific Reports, 4*, 1–5. https://doi.org/10.1038/srep07312

Baba Mohamadi, M., Davari, H., Safari, A.-A., Alaei, S., & Pordanjani, S. R. (2023). The association between workload and quality of work life of nurses taking care of patients with COVID-19. *BMC Nursing, 22*, 234. https://doi.org/10.1186/s12912-023-01395-6

Bains, N., & Abdijadid, S. (2023). Major depressive disorder. In StatPearls. StatPearls Publishing. Retrieved July 31, 2025, from https://www.ncbi.nlm.nih.gov/books/NBK559078/

Behn, A., Herpertz, S. C., & Krause, M. (2018). The interaction between depression and personality dysfunction: State of the art, current challenges, and future directions. *Psykhe, 27*(2), 1–12. https://doi.org/10.7764/psykhe.27.2.1593

References

Belete, A., & Anbesaw, T. (2022). Prevalence and associated factors of depressive symptoms among healthcare professionals at Dessie Comprehensive Specialized Hospital, Ethiopia. *BMC Psychiatry, 22*, 446. https://doi.org/10.1186/s12888-022-04102-y

Belete, A., & Anbesaw, T. (2022). Prevalence and associated factors of depressive symptoms among healthcare professionals at Dessie Comprehensive Specialized Hospital, Ethiopia. *BMC Psychiatry, 22*(1), 446. https://doi.org/10.1186/s12888-022-04102-y

Bertussi, V. C., Ferreira, L. A., Pereira, L. S., Santana, L. C., & Junqueira, M. A. de B. (2024). Suicide risk in nursing and its relationship with safe care attitudes. *Cogitare Enferm*, *29*. https://doi.org/10.1590/ce.v29i0.94834

Bezerra de Souza, D. L., Oliveras-Fabregas, A., Espelt, A., et al. (2021). Multimorbidity and its associated factors among adults aged 50 and over: A cross-sectional study in 17 European countries. *PLOS ONE, 16*, e0246623. https://doi.org/10.1371/journal.pone.0246623

Blackwell, S. E., & Heidenreich, T. (2021). Cognitive behavior therapy at the crossroads. *International Journal of Cognitive Therapy, 8*, 1–22. https://doi.org/10.1007/s41811-021-00104-y

Blekemolen, J., Hulshof, C., & Sluiter, J. (2016). The prevalence of work-related stress complaints among healthcare workers for the disabled participating in a workers' health surveillance program. *Occupational Medicine & Health Affairs, 4*(256), 2. https://doi.org/10.4172/2329-6879.1000256

Boland, R., Verdiun, M., & Ruiz, P. (2021). *Kaplan & Sadock's synopsis of psychiatry*. Lippincott Williams & Wilkins.

Butcher, K. H., Bulechek, M. G., Dochterman, M. J., & Wagner, M. C. (2018). *Nursing intervention classification*. Elsevier.

References

https://books.google.fi/books?hl=fi&lr=&id=L4lIDwAAQBAJ&oi=fnd&pg=PP1&dq=nursing+interventions+for+depression&ots=AgiO_Ef3WX&sig=buZSjiVA1B6Uyha8cu04XbJMaY&redir_esc=y#v=onepage&q&f=false

Bains, N., & Abdijadid, S. (2023). Major depressive disorder. In StatPearls. StatPearls Publishing. Retrieved July 31, 2025, from https://www.ncbi.nlm.nih.gov/books/NBK559078/

Bair, M. J., Robinson, R. L., Katon, W., & Kroenke, K. (2017). Depression and pain comorbidity: A literature review. *Archives of Internal Medicine, 177*(9), 1159–1165. https://doi.org/10.1001/jamainternmed.2017.1913

Cai, N., Choi, K. W., & Fried, E. I. (2020). Reviewing the genetics of heterogeneity in depression: Operationalizations, manifestations, and etiologies. *Human Molecular Genetics*. https://doi.org/10.1093/hmg/ddaa115

Cambridge, O. R., Knight, M. J., Mills, N., & Baune, B. T. (2018). The clinical relationship between cognitive impairment and psychosocial functioning in major depressive disorder: A systematic review. *Psychiatry Research, 269*, 157–171. https://doi.org/10.1016/j.psychres.2018.07.016

Cătălina Elena, I., Costinel, C. P., Mihaela, A., et al. (2022). Depression in rheumatoid arthritis: A narrative review—Diagnostic challenges, pathogenic mechanisms, and effects. *Medicina (Kaunas, Lithuania), 58*(11), 1637. https://doi.org/10.3390/medicina58111637

Charlson, F., van Ommeren, M., Flaxman, A., Cornett, J., Whiteford, H., & Saxena, S. (2019). New WHO prevalence estimates of mental disorders in conflict settings: A systematic review and meta-analysis.

References

The Lancet, 394(10194), 240–248. https://doi.org/10.1016/S0140-6736(19)30934-1

Cheung, T., & Yip, P. S. F. (2015). Depression, anxiety, and symptoms of stress among Hong Kong nurses: A cross-sectional study. *International Journal of Environmental Research and Public Health, 12*(9), 11072–11100. https://doi.org/10.3390/ijerph120911072

Cocker, F., Sanderson, K., & LaMontagne, A. D. (2017). Estimating the economic benefits of eliminating job strain as a risk factor for depression. *Journal of Occupational and Environmental Medicine, 59*(1), 12–17. https://doi.org/10.1097/JOM.0000000000000900

Conti, C., Fontanesi, L., Lanzara, R., Rosa, I., & Porcelli, P. (2020). Fragile heroes: The psychological impact of the COVID-19 pandemic on health-care workers in Italy. *PLOS ONE, 15*(11), e0242538. https://doi.org/10.1371/journal.pone.0242538

Castronovo, M. A., Pullizzi, A., & Evans, S. (2016). Nurse bullying: A review and a proposed solution. *Nursing Outlook, 64*(3), 208–214. https://doi.org/10.1016/j.outlook.2015.11.008

Cristina, F. P., Alina, J., Simona, G. T., et al. (2023). Challenges in cerebral venous thrombosis management—Case reports and short literature review. *Life, 13*(2), 334. https://doi.org/10.3390/life13020334

Costeira, C., Ventura, F., Pais, N., Santos-Costa, P., Dixe, M. A., Querido, A., & Laranjeira, C. (2022). Workplace Stress in Portuguese Oncology Nurses Delivering Palliative Care: A Pilot Study. *Nursing Reports*, *12*(3), 597-609. https://doi.org/10.3390/nursrep12030059

Cuijpers, P., Karyotaki, E., Reijnders, M., Purgato, M., & Barbui, C. (2023).

Cognitive behavior therapy versus other treatments for adult

References

depression: A comprehensive network meta-analysis of 409 trials. *Psychological Medicine, 53*(12), 4208–4219. https://doi.org/10.1017/S0033291722001984

Dall'Oglio, I., Rosati, G. V., Biagioli, V., et al. (2021). Pediatric nurses in pediatricians' offices: A survey for primary care pediatricians. *BMC Family Practice, 22*(1), 136. https://doi.org/10.1186/s12875-021-01457-1

Davidson, J. E., Accardi, R., Sanchez, C., Zisook, S., & Hoffman, L. A. (2020). Sustainability and outcomes of a suicide prevention program for nurses. *Worldviews on Evidence-Based Nursing, 17*(1), 24–31. https://doi.org/10.1111/wvn.12353

De Winter, R., Hemert, A., De Rijk, R., Zwinderman, K., Frankhuijzen-Sierevogel, A., et al. (2003). Anxious–retarded depression: Relation with plasma vasopressin and cortisol. *Neuropsychopharmacology, 28*, 140–147. https://doi.org/10.1038/sj.npp.1300026

Ding, Y., Yang, Y., Yang, X., et al. (2015). The mediating role of coping style in the relationship between psychological capital and burnout among Chinese nurses. *PLoS One, 10*(4), e0122128. https://doi.org/10.1371/journal.pone.0122128

Duha, M., & Serwan, B. (2021). Detection of depression among nurses providing care for patients with COVID-19 at Baqubah Teaching Hospital. *Iraqi National Journal of Nursing Specialties, 34*(1), 86–94.

Dela Cruz, J. (2024, October 5). Depression plus social isolation double down on work productivity. *MIMS Thailand*. https://www.mims.com/thailand/news-updates/topic/depression-plus-social-isolation-double-down-on-work-productivity

References

Edmonson, C., & Zelonka, C. (2019). Our own worst enemies: The nurse bullying epidemic. *Nursing Administration Quarterly, 43*(3), 274–279. https://doi.org/10.1097/NAQ.0000000000000353Erratum in: *Nursing Administration Quarterly, 43*(4), 380. https://doi.org/10.1097/NAQ.0000000000000380

Ejtahed, H. S., Mardi, P., Hejrani, B., Mahdavi, F. S., Ghoreshi, B., Gohari, K., Heidari-Beni, M., & Qorbani, M. (2024). Association between junk food consumption and mental health problems in adults: A systematic review and meta-analysis. *BMC Psychiatry, 24*(1), 438. https://doi.org/10.1186/s12888-024-05889-8

El-Hamrawya, L. G., Hegazy, N. N., & El-Halawany, S. M. (2018). Prevalence of depressive symptoms among healthcare providers in Shibin El-Kom city in Menoufa governorate. *Menoufa Medical Journal, 31*(2), 708.

El-Sayed, O. A., Attia, M. S., & Shata, Z. N. (2024). Depressive symptoms among nurses in Al Maamoura Psychiatric Hospital in Alexandria, Egypt. *Journal of High Institute of Public Health, 54*(1), 1–9.

Fatima, H. A. (2023). Exploring the ideal role of women for peace and harmony: A study in the context of women's lives in early Islam. *AL IDRAK Journal, 3*(2), 33–54.

Firth, J., Stubbs, B., & Teasdale, S. B. (2018). Diet as a hot topic in psychiatry: A population-scale study of nutritional intake and inflammatory potential in severe mental illness. *World Psychiatry, 17*(3), 279–280. https://doi.org/10.1002/wps.20572

Frank, P., Jokela, M., Batty, G. D., Lassale, C., Steptoe, A., & Kivimäki, M. (2022). Overweight, obesity, and individual symptoms of depression: A multicohort study with replication in UK Biobank.

References

Brain, Behavior, and Immunity, 105, 192–200. https://doi.org/10.1016/j.bbi.2022.07.009

Frasquilho, D., Matos, M. G., Salonna, F., Guerreiro, D., Storti, C. C., Gaspar, T., & Caldas-de-Almeida, J. M. (2016). Mental health outcomes in times of economic recession: A systematic literature review. *BMC Public Health, 16*, 115. https://doi.org/10.1186/s12889-016-2720-2

Gherardi-Donato, E. C., Cardoso, L., Teixeira, C. A., Pereira, S. D., & Reisdorfer, E. (2015). Association between depression and work stress in nursing professionals with technical education level. *Latin American Journal of Nursing, 23*(4), 733–740. https://doi.org/10.1590/0104-1169.0307.2585

Graves, B. S., Hall, M. E., Dias-Karch, C., Haischer, M. H., & Apter, C. (2021). Gender differences in perceived stress and coping among college students. *PLOS ONE, 16*(8), e0255634. https://doi.org/10.1371/journal.pone.0255634

Grundström, J., Konttinen, H., Berg, N., & Kiviruusu, O. (2021). Associations between relationship status and mental well-being in different life phases from young to middle adulthood. *SSM - Population Health, 14*, 100774. https://doi.org/10.1016/j.ssmph.2021.100774

Gu, A., Onyeama, G., Bakare, M., & Igwe, M. (2015). Prevalence of depression among resident doctors in a teaching hospital, South East Nigeria. *International Journal of Clinical Psychiatry, 3*(1), 1–5.

Gunnarsson, A. B., Hedberg, A. K., Håkansson, C., Hedin, K., & Wagman, P. (2023). Occupational performance problems in people with depression and anxiety. *Scandinavian Journal of Occupational*

References

Therapy, 30(2), 148–158. https://doi.org/10.1080/11038128.2021.1882562

Gallup. (2022). *The economic cost of poor employee mental health*. https://www.gallup.com/workplace/404174/economic-cost-poor-employee-mental-health.aspxGallup.com

González, H. M., Tarraf, W., Whitfield, K. E., & Vega, W. A. (2024). Racial and ethnic disparities in the prevalence and treatment of depression in U.S. adults, 2017–2020. *Journal of Affective Disorders, 338*, 120–130. https://doi.org/10.1016/j.jad.2023.12.027*016. Journal of Affective Disorders, 298*, 508–515.

Gideons, E. S., & Tye, K. M. (2019). From chance discovery to targeted treatment: The history and future of antidepressant drug development. *Nature Neuroscience, 22*(9), 1409–1415. https://doi.org/10.1038/s41593-019-0460-3

Hall, L. H., Johnson, J., Watt, I., Tsipa, A., & O'Connor, D. B. (2016). Healthcare staff wellbeing, burnout, and patient safety: A systematic review. *PLOS ONE, 11*(7), e0159015. This review explores the relationship between healthcare staff well-being and patient safety outcomes.

Hampton, D., Tharp-Barrie, K., & Rayens, M. (2019). Experience of nursing leaders with workplace bullying and how to best cope. *Journal of Nursing Management*. Advance online publication. https://doi.org/10.1111/jonm.12706

Hanson, B., & Young, M. A. (2017). Understanding the impairment associated with depressive symptoms. *The Journal of Nervous and Mental Disease, 205*(8), 600–604.

References

Hasan, M. T., Anjum, A., Biswas, M. A. A. J., et al. (2022). A survey on depressive symptoms and its correlates amongst physicians in Bangladesh during the COVID-19 pandemic. *Frontiers in Psychology, 13*, 846889. https://doi.org/10.3389/fpsyg.2022.846889

Hayes, A. F., & Ross, C. E. (2015). Exercise and physical health as contributors to psychological well-being: The role of weight. *Journal of Health and Social Behavior, 56*(2), 194-209.

Herzog, J. I., & Schmahl, C. (2018). Adverse childhood experiences and the consequences on neurobiological, psychosocial, and somatic conditions across the lifespan. In J. Lindert (Ed.), *Frontiers in Psychiatry, 9*. https://doi.org/10.3389/fpsyt.2018.00436

Hsieh, H. F., Wang, H. H., Shen, S. H., & Li, Y. C. (2018). Predictors of depressive symptoms among psychiatric nurses who suffered from workplace violence. *Journal of Advanced Nursing, 74*(2), 425–432. https://doi.org/10.1111/jan.13437

Huang, L. J., Wu, C., Yeh, H. E., Huang, P. S., Yang, Y. H., Fang, Y. C., & Wu, C. T. (2022). Higher rumination tendency is associated with poorer cognitive control in individuals with major depressive disorder. *Brain Sciences, 12*(1), 77. https://doi.org/10.3390/brainsci12010077

Jones, A. L. (2017): Experience of protagonists in workplace bullying: An integrated literature review. Int J Nurs Clin Pract.; 4:246. https://doi.org/10.15344/23944978/2017/246.

Jradi, H., Alanazi, H., & Mohammad, Y. (2020). Psychosocial and occupational factors associated with low back pain among Saudi Arabian nurses. *Journal of Occupational Health, 62*(1), e12126. https://doi.org/10.1002/1348-9585.12126

References

Junqueira, M. A. D. B., Santos, M. A. D., Araújo, L. B. D., Ferreira, M. C. D. M., Giuliani, C. D., & Pillon, S. C. (2018). Depressive symptoms and drug use among nursing staff professionals. *Esc Anna Nery, 22*(4), e20180129. https://doi.org/10.1590/2177-9465-ean-2018-0129

Knight, M. J., & Baune, B. T. (2018). Cognitive dysfunction in major depressive disorder. *Current Opinion in Psychiatry, 31*(1), 26-31. https://doi.org/10.1097/YCO.0000000000000380

Konttinen, H. (2020). Emotional eating and obesity in adults: The role of depression, sleep, and genes. *The Proceedings of the Nutrition Society, 79*(3), 283–289. https://doi.org/10.1017/S0029665119001550

Kambeitz, J. P., & Howes, O. D. (2015). The serotonin transporter in depression: Meta‐analysis of in vivo and post‐mortem findings and implications for understanding and treating depression. Journal of Affective Disorders. Meta‐analysis of imaging studies revealed significant reductions in serotonin transporter (5‐HTT) availability in the midbrain and amygdala of individuals with major depressive disorder (MDD), suggesting reduced serotonergic function in these key brain regions .

LeMoult, J., Humphreys, K. L., Tracy, A., & Hoffmeister, J.-A. (2020). Meta-analysis: Exposure to early life stress and risk for depression in childhood and adolescence. *Journal of the American Academy of Child & Adolescent Psychiatry, 59*(1), 14–24. https://doi.org/10.1016/j.jaac.2019.03.017

Li, J. N., Chen, X. Q., Li, Q. Q., Zheng, Q. X., Pan, Y. Q., Huang, L., Zhu, Y., Liu, R. L., & Jiang, X. M. (2023). Effect of depressive symptoms

on quality of work life in female nurses: A cross-sectional study using propensity score matching. *Frontiers in Psychiatry, 14*, 1213025. https://doi.org/10.3389/fpsyt.2023.1213025

Li, S., Sznajder, K. K., Ning, L., Gao, H., Xie, X., Liu, S., ... & Yang, X. (2023). Identifying the influencing factors of depressive symptoms among nurses in China by machine learning: A multicentre cross-sectional study. *Journal of Nursing Management, 2023*(1), 5524561. https://doi.org/10.1111/jonm.13692

Liao, W., Deng, X., Jian, A., & Liu, M. (2024). Depressive symptoms among psychiatric nurses in a hospital: An analytical research. *Actas Españolas de Psiquiatría, 52*(3), 309-316.

Luo, Y., Eaton, A. A., & Kwan, V. S. Y. (2022). A global meta-analysis of campus sexual assault prevalence among college students. Trauma, Violence, & Abuse, 23(4), 1124–1138. https://doi.org/10.1177/15248380211043812

Lv, Y., Zhang, Y., & Li, X. (2023). Prevalence and influencing factors of severe depression in nurses during and after the COVID-19 pandemic: A large-scale multicenter study. *Frontiers in Public Health, 11*, 1234. https://doi.org/10.3389/fpsyg.2023.1234

Lisanby, S. H., Sackeim, H. A., & Prudic, J. (2024). Vagus nerve stimulation in treatment-resistant depression: A one-year, randomized, sham-controlled trial. *Brain Stimulation, 17*(1), 1–9. https://doi.org/10.1016/j.brs.2024.12.1191ScienceDirect+1PubMed+1

Maharaj, S., Lees, T., & Lal, S. (2019). Prevalence and risk factors of depression, anxiety, and stress in a cohort of Australian nurses. *International Journal of Environmental Research and Public Health, 16*(1), 61. https://doi.org/10.3390/ijerph16010061

References

Marx, W., Lane, M., & Aslam, H. (2020). *Diet and depression: Exploring the biological mechanisms of action*. Springer Nature.

Milaneschi, Y., Lamers, F., Bot, M., Drent, M. L., & Penninx, B. W. (2017). Leptin dysregulation is specifically associated with major depression with atypical features: Evidence for a mechanism connecting obesity and depression. *Biological Psychiatry, 81*(9), 807–814. https://doi.org/10.1016/j.biopsych.2016.11.029

Mohamed, N. A., Mohamed, Y. A., Ali, T. A., Gabow, A. A., & Hilowle, F. M. (2024). Prevalence and risk factors associated with depressive symptoms among healthcare professionals at a tertiary care hospital in Mogadishu, Somalia: A cross-sectional study. *Risk Management and Healthcare Policy, 17*, 2573–2585. https://doi.org/10.2147/RMHP.S488303

Monda, R., Sitthimongko, Y., Vongsirimas, N., Chansatitporn, N., & Hegadoren, K. (2022). The impact of workplace stress and coping mechanisms on depressive symptoms among registered nurses in Bangladesh. *International Journal of Nursing Studies, 122*, 103997.

Mondal, R., Sitthimongkol, Y., Vongsirimas, N., Chansatitporn, N., & Hegadoren, K. (2022). The influence of workplace stress and coping on depressive symptoms among registered nurses in Bangladesh. *Belitung Nursing Journal, 8*(1), 11–19. https://doi.org/10.33546/bnj.1959

Mullins, N., & Lewis, C. M. (2017). Genetics of depression: Progress at last. In *Genetics of depression: Progress at last* (pp. 1–16). Springer. https://doi.org/10.1007/978-3-319-48502-1_1

Magadley, W, Ray, S., & Kiselycznyk, S. (2021). *Depressive symptoms in helping professions: a systematic review of prevalence rates and*

References

work-related risk factors. *Journal of Occupational Health Psychology*, 26(5), 389–406. https://doi.org/10.1037/ocp0000256

McIntyre, R. S., Best, M. W., Schaffer, A., & Carvalho, A. F. (2024). Advances in the treatment of treatment-resistant depression: A review of novel pharmacological and neuromodulation strategies. *Neuroscience and Biobehavioral Reviews, 158*, 105477. https://doi.org/10.1016/j.neubiorev.2024.105477

Markowitz, J. C., & Weissman, M. M. (2023). The efficacy of interpersonal psychotherapy for major depressive disorder: Meta-analysis of randomized controlled trials. *Journal of Affective Disorders, 320*, 230–240. https://doi.org/10.1016/j.jad.2022.09.119

McLaughlin, K. A., & Sheridan, M. A. (2016). Beyond cumulative risk: A dimensional approach to childhood adversity. *Current Directions in Psychological Science, 25*(4), 239–245. https://doi.org/10.1177/0963721416655883

Ngasa, S. N., Sama, C., Dzekem, B. S., Nforchu, K. N., Tindong, M., Aroke, D., & Dimala, C. A. (2017). Prevalence and factors associated with depression among medical students in Cameroon: A cross-sectional study. *BMC Psychiatry, 17*, 216. https://doi.org/10.1186/s12888-017-1419-4

Nigam, J. A., Barker, R. M., Cunningham, T. R., Swanson, N. G., & Chosewood, L. C. (2023). Vital signs: Health worker–perceived working conditions and symptoms of poor mental health—Quality of worklife survey, United States, 2018-2022. *MMWR Morbidity and Mortality Weekly Report, 72*, 1197–1205. https://doi.org/10.15585/mmwr.mm7246a1

References

Njim, T., Mbanga, C. M., Tindong, M., Fonkou, S., Makebe, H., Toukam, L., Fondungallah, J., Fondong, A., Mulango, I., & Kika, B. (2019). Burnout as a correlate of depression among medical students in Cameroon: A cross-sectional study. *BMJ Open, 9*(12), e027709. https://doi.org/10.1136/bmjopen-2018-027709

Nutt, D., Wilson, S., & Paterson, L. (2022). Sleep disorders as core symptoms of depression. *Dialogues in Clinical Neuroscience, 10*(3), 329–336. https://doi.org/10.31887/DCNS.2008.10.3/dnutt

Noda, Y., Zomorrodi, R., & Blumberger, D. M. (2020). Neuromodulation therapies for treatment-resistant depression: Mechanisms and clinical implications. *Progress in Neuro-Psychopharmacology & Biological Psychiatry, 102*, 109955. https://doi.org/10.1016/j.pnpbp.2020.109955

Occupational Safety and Health Administration. (n.d.). *Healthcare: Workplace violence*. U.S. Department of Labor. Accessed March 22, 2024, from https://www.osha.gov/healthcare/workplace-violence

Ogungbemi, A. O., Babatunde, A. A., Falade, J., Ajayi, A. A., Ajayi, A. O., Adedire, A., ... & Seun, S. A. (2024). Assessment of depressive symptoms and sociodemographic correlates of adult patients attending a national health insurance clinic at a tertiary hospital, southwest Nigeria. *Nigerian Medical Journal, 65*(1), 16–30. https://doi.org/10.4103/nmj.nmj_121_23

Okour, A., & Amarneh, B. (2023). Physical activity reduces depression among healthcare workers during the COVID-19 pandemic in Jordan. *Clinical Practice & Epidemiology in Mental Health, 19*, e174501792306220. https://doi.org/10.2174/17450179-v19-230720-2023-8

References

Oliveira, L. M., Silva, A. L., & Almeida, R. S. (2022). The impact of mental health on workplace productivity: A review of depression, anxiety, and stress. *Journal of Occupational Health Psychology, 27*(4), 317-326. https://doi.org/10.1037/ocp0000325

Orosz, A., Federspiel, A., Haisch, S., Seeher, C., Dierks, T., & Cattapan, K. (2017). A biological perspective on differences and similarities between burnout and depression. *Neuroscience & Biobehavioral Reviews*, *73*, 112–122. https://doi.org/10.1016/j.neubiorev.2016.12.023

Rico‐Uribe, L. A., Caballero, F. F., Martín‐María, N., Cabello, M., Ayuso‐Mateos, J. L., & Miret, M. (2018). Association of loneliness with all‐cause mortality: A meta‐analysis. PLOS ONE, 13(1), e0190033. https://doi.org/10.1371/journal.pone.0190033

Pachi, A., Sikaras, C., Ilias, I., Panagiotou, A., Zyga, S., Tsironi, M., et al. (2022). Burnout, depression, and sense of coherence in nurses during the pandemic crisis. *Healthcare, 10*(1), 134. https://doi.org/10.3390/healthcare10010134

Pascoe, M., Bailey, A. P., Craike, M., et al. (2020). Physical activity and exercise in youth mental health promotion: A scoping review. *BMJ Open Sport & Exercise Medicine, 6*(1), e000677. https://doi.org/10.1136/bmjsem-2019-000677

Pearce, M., Garcia, L., Abbas, A., et al. (2022). Association between physical activity and risk of depression: A systematic review and meta-analysis. *JAMA Psychiatry, 79*(6), 550–559. https://doi.org/10.1001/jamapsychiatry.2022.0609

References

Peters, M., Godfrey, C., McInerney, P., Soares, C., Khalil, H., & Parker, D. (2015). *The Joanna Briggs Institute Reviewers' Manual 2015: Methodology for JBI Scoping Reviews*. The Joanna Briggs Institute.

Pool, M., Sorsdahl, K., Myers, B., & van der Westhuizen, C. (2024). The prevalence of and factors associated with depressive and anxiety symptoms during the COVID-19 pandemic among healthcare workers in South Africa. *PLOS ONE, 19*(3), e0299584. https://doi.org/10.1371/journal.pone.0299584

Patel, V., Saxena, S., Lund, C., Thornicroft, G., Baingana, F., Bolton, P., ... & UnÜtzer, J. (2018). The Lancet Commission on global mental health and sustainable development. *The Lancet*, 392(10157), 1553-1598. https://doi.org/10.1016/S0140-6736(18)31612-X

Rashid, M., Kristofferzon, M.-L., Heiden, M., & Nilsson, A. (2018). Factors related to work ability and well-being among women on sick leave due to long-term pain in the neck/shoulders and/or back: A cross-sectional study. *BMC Public Health, 18*, 672. https://doi.org/10.1186/s12889-018-5500-6

Rueger, S. Y., Malecki, C. K., Pyun, Y., Aycock, C., & Coyle, S. (2016). A meta-analytic review of the association between perceived social support and depression in childhood and adolescence. *Psychological Bulletin, 142*(10), 1017–1067. https://doi.org/10.1037/bul0000058

Van Der Linden, S. (2023). Active inoculation boosts attitudinal resistance against extremist persuasion techniques: A novel approach towards the prevention of violent extremism. *Behavioural Public Policy*, *8*(3), 548-571.

Saris, I. M. J., Aghajani, M., van der, S. J. A., van der Wee, N. J. A., & Penninx, B. W. J. H. (2017). Social functioning in patients with

References

depressive and anxiety disorders. *Acta Psychiatrica Scandinavica, 136*(4), 352–361. https://doi.org/10.1111/acps.12774

Saygili, M., Avci, K., & Sönmez, S. (2020). Quality of work life and burnout in healthcare workers in Turkey. *Journal of Health Management, 22*, 317–329. https://doi.org/10.1177/0972063420904029

Schimmels, J., Groh, C., Neft, M., Wocial, L., Young, C., & Davidson, J. E. (2023). American Academy of Nursing Expert Panel Consensus Statement on leveraging equity in policy to improve recognition and treatment of mental health, substance use disorders, and nurse suicide. *Nursing Outlook, 71*(3), 101970. https://doi.org/10.1016/j.outlook.2022.12.003

Schuch, F., Vancampfort, D., Firth, J., Rosenbaum, S., Ward, P., Reichert, T., Bagatini, N. C., Bgeginski, R., & Stubbs, B. (2017). Physical activity and sedentary behaviour in people with major depressive disorder: A systematic review and meta-analysis. *Journal of Affective Disorders, 210*, 139–150. https://doi.org/10.1016/j.jad.2016.10.050

Scott, A. J., Webb, T. L., Martyn-St James, M., Rowse, G., & Weich, S. (2021). Improving sleep quality leads to better mental health: A meta-analysis of randomised controlled trials. *Sleep Medicine Reviews, 60*, 101556. https://doi.org/10.1016/j.smrv.2021.101556

Shieh, S. H., Sung, F. C., Su, C. H., Tsai, Y., & Hsieh, V. C. (2016). Increased low back pain risk in nurses with the high workload for patient care: A questionnaire survey. *Taiwan Journal of Obstetrics & Gynecology, 55*(4), 525–529. https://doi.org/10.1016/j.tjog.2016.04.011

References

Shin, H., & Park, C. (2022). Social support and psychological well-being in younger and older adults: The mediating effects of basic psychological need satisfaction. *Frontiers in Psychology, 13*, 1051968. https://doi.org/10.3389/fpsyg.2022.1051968

Silva, D. D. S., Tavares, N. V., Alexandre, A. R., Freitas, D. A., Brêda, M. Z., Albuquerque, M. C., & Melo, V. L. (2015). Depression and suicide risk among nursing professionals: An integrative review. *Revista Escola de Enfermagem USP, 49*, 1027–1036. https://doi.org/10.1590/S0080-623420150000600010

Silva, L. R. B., Seguro, C. S., de Oliveira, C. G. A., et al. (2020). Physical inactivity is associated with increased levels of anxiety, depression, and stress in Brazilians during the COVID-19 pandemic: A cross-sectional study. *Frontiers in Psychiatry, 11*, 565291. https://doi.org/10.3389/fpsyt.2020.565291

Slusarska, B., Nowicki, G. J., Niedorys-Karczmarczyk, B., & Chrzan-Rodak, A. (2022). Prevalence of depression and anxiety in nurses during the first eleven months of the COVID-19 pandemic: A systematic review and meta-analysis. *International Journal of Environmental Research and Public Health, 19*(2), 1154.

Stelnicki, A. M., Jamshidi, L., Angehrn, A., Nicholas, A., & Carleton, R. (2020). Suicidal behaviors among nurses in Canada. *Canadian Journal of Nursing Research, 52*, 226–236. https://doi.org/10.1177/0844562120941532

Sundström, E., Jakobsen, M., Mortensen, O., & Andersen, L. (2017). Joint association of multimorbidity and work ability with risk of long-term sickness absence: A prospective cohort study with register follow-up. *Scandinavian Journal of Work, Environment & Health, 43*, 146–154. https://doi.org/10.5271/sjweh.3611

References

Shringi, H., Tomar, M., Gayakwad, D., & Darwhekar, G. N. (2024). Herbal antidepressant: An evidence-based review of plants used in the treatment of depression and anxiety. *International Journal of Development Research, 14*, Article ID 29032. https://doi.org/10.37118/ijdr.29032.12.2024

Sackeim, H. A., Lisanby, S. H., & Prudic, J. (2020). Electroconvulsive therapy: Neurobiological mechanisms and clinical effectiveness. *Neuropsychopharmacology, 45*(2), 223–239. https://doi.org/10.1038/s41386-019-0443-9

Sharbafshaaer, M., Cirillo, G., Esposito, F., Tedeschi, G., & Trojsi, F. (2024). Harnessing brain plasticity: The therapeutic power of repetitive transcranial magnetic stimulation (rTMS) and theta burst stimulation (TBS) in neurotransmitter modulation, receptor dynamics, and neuroimaging for neurological innovations. *Biomedicines, 12*(11), 2506. https://doi.org/10.3390/biomedicines12112506

Tran, B. X., Ha, G. H., Nguyen, D. N., Nguyen, T. P., Do, H. T., Latkin, C. A., et al. (2020). Global mapping of interventions to improve the quality of life of patients with depression during 1990–2018. *Quality of Life Research, 29*(4), 987–1004. https://doi.org/10.1007/s11136-020-02512-7

Tran, B. X., Vu, G. T., Pham, K. T. H., Vuong, Q. H., Ho, M. T., Vuong, T. T., et al. (2019). Depressive symptoms among industrial workers in Vietnam and correlated factors: A multi-site survey. *International Journal of Environmental Research and Public Health, 16*(9). https://doi.org/10.3390/ijerph16091642

Tran, T. T. T., Nguyen, N. B., Luong, M. A., Bui, T. H. A., Phan, T. D., Ngo, T. H., et al. (2019). Stress, anxiety, and depression in clinical

nurses in Vietnam: A cross-sectional survey and cluster analysis. *International Journal of Mental Health Systems, 13*(1), 1–11. https://doi.org/10.1186/s13033-019-0312-0

Tuck, N. J., Farrow, C., & Thomas, J. M. (2019). Assessing the effects of vegetable consumption on the psychological health of healthy adults: A systematic review of prospective research. *American Journal of Clinical Nutrition, 110*(1), 196–211. https://doi.org/10.1093/ajcn/nqz051

Tsenkova, V. K., & Karlamangla, A. S. (2016). Depression amplifies the influence of central obesity on 10-year incidence of diabetes: Findings from MIDUS. *PLOS ONE, 11*(10), e0164802. https://doi.org/10.1371/journal.pone.0164802

Toker, S., & Biron, M. (2021). Job strain and depression: The role of the imbalance between job demands and coping resources. *European Journal of Epidemiology, 36*(3), 225–236. https://doi.org/10.1007/s10654- 021-00725-9.

Ulrich, B., Cassidy, L., Barden, C., Varn-Davis, N., & Delgado, S. (2022). National nurse work environments - October 2021: A status report. *Critical Care Nurse, 42*(5), 58–70. https://doi.org/10.4037/ccn2022438

van der Velde, L. A., Zitman, F. M., Mackenbach, J. D., Numans, M. E., & Kiefte-de Jong, J. C. (2022). The interplay between fast-food outlet exposure, household food insecurity, and diet quality in disadvantaged districts. *Public Health Nutrition, 25*(1), 105–113. https://doi.org/10.1017/S1368980021002390

Vasconcelos, E. M., & Martino, M. M. F. (2018). Burnout and depressive symptoms in intensive care nurses: Relationship analysis. *Revista*

References

Brasileira de Enfermagem, 71(1), 135–141. https://doi.org/10.1590/0034-7167-2017-0185

Vasconcelos, E. M., Martino, M. M. F., & França, S. P. S. (2018). Burnout and depressive symptoms in intensive care nurses: Relationship analysis. *Revista Brasileira de Enfermagem, 71*(1), 135–141. https://doi.org/10.1590/0034-7167-2016-0019

Vélez-Álvarez, C., Barrera-Valencia, C., Benito-Devia, A. V., Figueroa-Barrera, M., & Franco-Idarraga, S. M. (2016). Study of depressive symptoms according to Zung's self-rating scale on men deprived of freedom in a city of Colombia. *Rev Esp Sanid Penit*, *18*(2).

Vinson, D. W., Arcan, M., Niland, D.-P., & Delahunty, F. (2024). Towards sustainable workplace mental health: A novel approach to early intervention and support. *arXiv*. https://doi.org/10.48550/arXiv.2402.01592arXiv

Wagman, P., Hjärthag, F., Håkansson, C., Hedin, K., & Gunnarsson, A. B. (2021). Factors associated with higher occupational balance in people with anxiety and/or depression who require occupational therapy treatment. *Scandinavian Journal of Occupational Therapy, 28*(6), 426–432. https://doi.org/10.1080/11038128.2021.1884420

Walters, M., & Hines-Martin, V. (2018). Overview of executive functions in mood and depressive disorders: A review of the literature. *Archives of Psychiatric Nursing, 32*(4), 617–637. https://doi.org/10.1016/j.apnu.2018.01.009

Wang, H., Dai, X., Yao, Z., Zhu, X., Jiang, Y., Li, J., & Han, B. (2021). The prevalence and risk factors for depressive symptoms in frontline nurses under the COVID-19 pandemic based on a large cross-sectional study using the propensity score-matched method. *BMC Psychiatry, 21*(1), 152. https://doi.org/10.1186/s12888-021-03143-z

References

Wang, J., Zhang, X., Yang, B., et al. (2020). Suicidal ideation among nurses: Unique and cumulative effects of different subtypes of sleep problems. *Journal of Affective Disorders, 276*, 600–607. https://doi.org/10.1016/j.jad.2020.07.110

Wang, X., Arafa, A., Liu, K., Eshak, E. S., Hu, Y., & Dong, J. Y. (2021). Combined healthy lifestyle and depressive symptoms: A meta-analysis of observational studies. *Journal of Affective Disorders, 289*, 144–150. https://doi.org/10.1016/j.jad.2021.04.019

World Health Organization and Columbia University. (2016). *Group Interpersonal Therapy (IPT) for Depression* (WHO generic field-trial version 1.0). Geneva: WHO.

World Health Organization. (2022). *Depression*. Retrieved July 31, 2025, from https://www.who.int/news-room/fact-sheets/detail/depression

World Health Organization. (2018). *Depression and other common mental health disorders: Global health estimates*. Retrieved May 1, 2018, from http://www.who.int/news-room/fact-sheets/detail/depression

World Health Organization. (2019). *International Classification of Diseases 11th edition* (ICD-11). Retrieved from https://icd.who.int

World Health Organization. (2020). Principles of Epidemiology. WHO Press. This resource provides a detailed introduction to epidemiology principles, including the concept of incidence and its role in assessing disease burden and guiding public health interventions.

World Health Organization. (2021). Workplace violence. World Health Organization. Retrieved October 25, 2021, from https://www.who.int/violence_injury_prevention/injury/work9/en

References

World Health Organization. (2023, April 7). *Depressive disorder (depression)*. Retrieved from https://www.who.int/news-room/fact-sheets/detail/depression

World Health Organization. Depressive disorder (depression).(2023). World Health Organization. April 7, 2023. https://www.who.int/news-room/fact-sheets/ detail/depression.

Wu, Y., Yin, X., Yan, S., Jiang, N., Tian, M., Zhang, J., Chen, Z., Wang, J., Lv, C., & Gong, Y. (2022). Prevalence of depressive symptoms in nurses compared to the general population based on propensity score matching: A nationwide cross-sectional study in China. *Journal of Affective Disorders, 310*, 304–309. https://doi.org/10.1016/j.jad.2022.05.012

Wu, Y., Yin, X., Yan, S., Jiang, N., Tian, M., Zhang, J., et al. (2022). Prevalence of depressive symptoms in nurses compared to the general population based on propensity score matching: A nationwide cross-sectional study in China. *Journal of Affective Disorders, 310*, 304–309. https://doi.org/10.1016/j.jad.2022.05.062

World Health Organization. (2022). *Depression*. Retrieved July 31, 2025, from https://www.who.int/news-room/fact-sheets/detail/depression

Wei, H., Pan, X., & Hanson, L. (2023). Occupational stressors among nurses in China: ⚠Wages, workload, shift work, documentation burden, and status. *Frontiers in Psychology, 14*, 1471640. https://doi.org/10.3389/fpsyg.2023.1471640

Wang, X., Chen, Y., Zhang, L., Li, J., & Liu, H. (2022). Status and associations of nursing practice environments in intensive care units: A cross-sectional study in China. *Journal of Nursing Management, 30*(7), 1600–1610.

References

Xie, N., Qin, Y., Wang, T., Zeng, Y., Deng, X., & Guan, L. (2020). Prevalence of depressive symptoms among nurses in China: A systematic review and meta-analysis. *PLOS ONE, 15*(7), e0235448. https://doi.org/10.1371/journal.pone.0235448

Xie, N., Qin, Y., Wang, T., Zeng, Y., Deng, X., & Guan, L. (2020). Prevalence of depressive symptoms among nurses in China: A systematic review and meta analysis. PLOS ONE. (Data extracted up to 2019).

Xu, Y., He, Y., Tang, L., & Liu, L. (2021). Nursing workforce challenges and job satisfaction in China: A systematic review. *International Journal of Nursing Sciences, 8*(4), 456–466. https://doi.org/10.1016/j.ijnss.2021.08.008

Yahaya, S. N., Wahab, S. F. A., Yusof, M. S. B., Yasin, M. A. M., & Rahman, M. A. A. (2018). Prevalence and associated factors of stress, anxiety, and depression among emergency medical officers in Malaysian hospitals. *World Journal of Emergency Medicine, 9*(3), 178. https://doi.org/10.5847/wjem.j.1920-8642.2018.03.003

Yao, Z., Tianming, H., Ruolin, L., et al. (2023). Distinct resting-state effective connectivity of large-scale networks in first episode and recurrent major depressive disorder: Evidence from the REST-meta-MDD consortium. *Frontiers in Neuroscience, 17*, 1308551. https://doi.org/10.3389/fnins.2023.1308551

Yasugaki, S., Okamura, H., Kaneko, A., & Hayashi, Y. (2023). Bidirectional relationship between sleep and depression. *Neuroscience Research*. https://doi.org/10.1016/j.neures.2023.04.006

Yokota, J., Fukutani, N., Nin, K., Yamanaka, H., Yasuda, M., Tashiro, Y., et al. (2019). Association of low back pain with presenteeism in

References

hospital nursing staff. *Journal of Occupational Health, 61*(3), 219–226. https://doi.org/10.1002/1348-9585.12056

Yoshizawa, K., Sugawara, N., Yasui-Furukori, N., Danjo, K., Furukori, H., Sato, Y., et al. (2016). Relationship between occupational stress and depression among psychiatric nurses in Japan. *Archives of Environmental & Occupational Health, 71*(1), 10–15. https://doi.org/10.1080/19338244.2015.1019253

Yulug, B., Ayyildiz, S., Sayman, D., et al. (2024). The functional role of the pulvinar in discriminating between objective and subjective cognitive impairment in major depressive disorder. *Alzheimer's & Dementia (New York, N.Y.), 10*(1), e12450–e12450. https://doi.org/10.1002/trc2.12450

Zeng, H. J., Zhou, G. Y., Yan, H. H., Yang, X. H., & Jin, H. M. (2018). Chinese nurses are at high risk for suicide: A review of nurses' suicides in China 2007–2016. *Archives of Psychiatric Nursing, 32*(6), 896–900. https://doi.org/10.1016/j.apnu.2018.09.010

Zhang, C., Yang, L., Liu, S., et al. (2020). Survey of insomnia and related social psychological factors among medical staff involved in the 2019 novel coronavirus disease outbreak. *Frontiers in Psychiatry, 11*, 306. https://doi.org/10.3389/fpsyt.2020.00306

Zhang, X., Guo, Y., Zhang, Y., & Zhang, Y. (2015). Study on the related factors and countermeasure of influencing ICU nurses' mental health. *Health Vocational Education, 33*(16), 113–115.

Zhang, Y., Duffy, J. F., & Castillero, E. R. D. (2017). Do sleep disturbances mediate the association between work-family conflict and depressive symptoms among nurses? A cross-sectional study. *Journal of Psychiatric and Mental Health Nursing, 24*(8), 620–628. https://doi.org/10.1111/jpm.12406

References

Zheng, R., Zhou, Y., Fu, Y., et al. (2021). Prevalence and associated factors of depression and anxiety among nurses during the outbreak of COVID-19 in China: A cross-sectional study. *International Journal of Nursing Studies, 114*, 103809. https://doi.org/10.1016/j.ijnurstu.2020.103809

Zhu, J., Li, X., Yuan, X., Zhang, B., Liu, Y., & Zhao, J. (2022). *Trends and Patterns of Depression Prevalence in the U.S.: Data from NHANES 2005–2*

Zhu, J., Rogers, S. J., & Xu, L. (2020). Workplace experiences of contract nurses in Chinese public hospitals: A qualitative study. *BMC Health Services Research, 20*(1), 212. https://doi.org/10.1186/s12913-020-05071-z

Zivin, K., Eisenberg, D., Gollust, S. E., & Golberstein, E. (2017). Economic downturns and population mental health: Research findings, gaps, challenges, and priorities. *Social Psychiatry and Psychiatric Epidemiology, 52*(7), 775–787. https://doi.org/10.1007/s00127-017-1383-6

Zhang, A., Park, S., Sullivan, J. E., & Jing, S. (2018). The effectiveness of problem-solving therapy for primary care patients' depressive and/or anxiety disorders: A systematic review and meta-analysis. *Journal of the American Board of Family Medicine, 31*(1), 139–150. https://doi.org/10.3122/jabfm.2018.01.170270

Appendices

(Appendix-A)

Ministryof Higher Education
and Scientific Research
University of Mosul
Collegiate Committee for Medical
Research Ethics

No.:40
Date:28/ 10/ 2024
Code: CCMRE-Nur-24-11

Ethical Approval

To / Noor Taha Abdullah
Nineveh Health department

Dr. Nawaf Mohammed Dhahir
College of Nursing
University of Mosul

41001, Al-Majmoua'a Str.
Mosul City, Iraq

Dear Researchers:

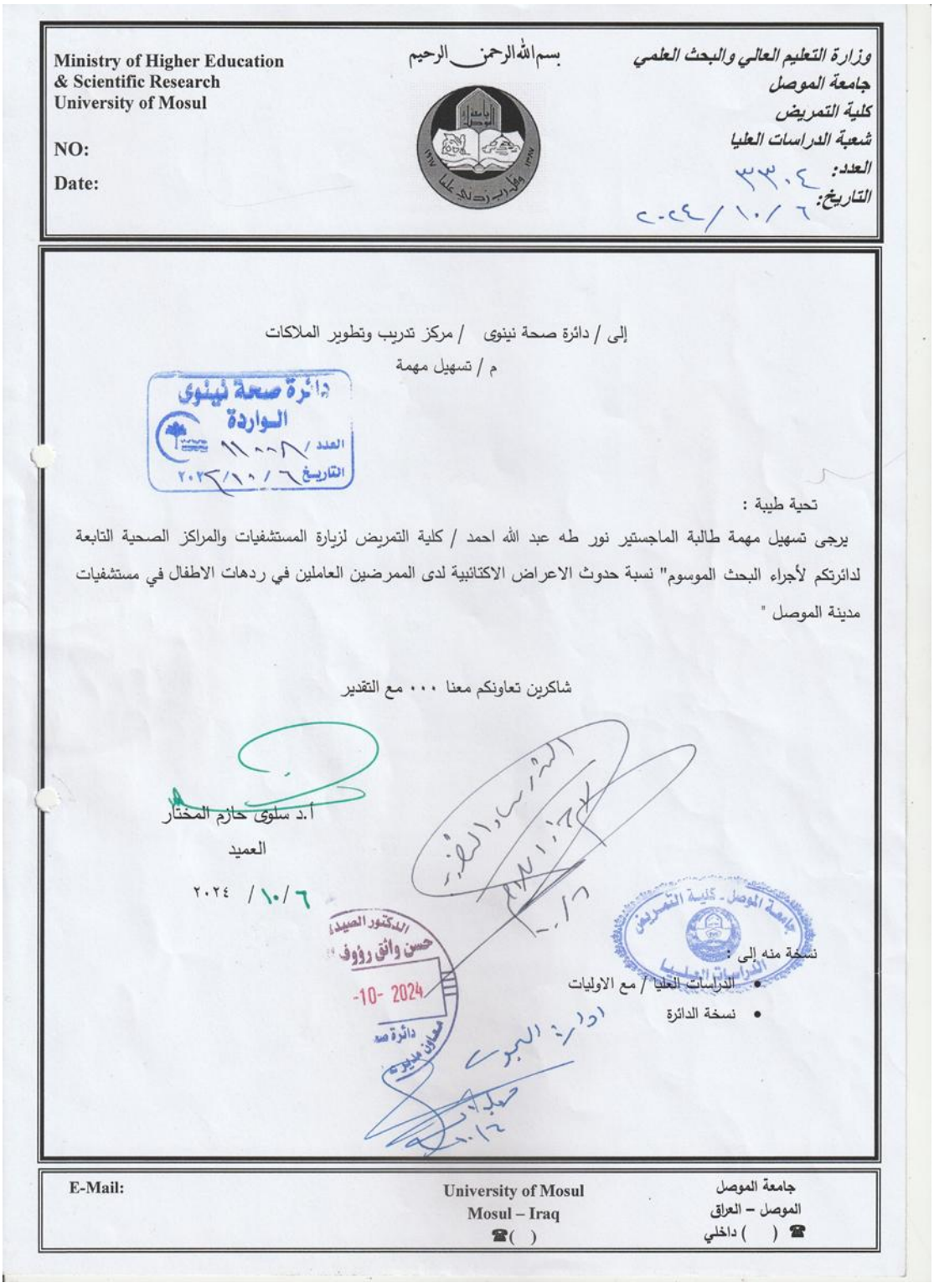
Protocol Title: **(Incidence of Depressive Symptoms among Nurses of pediatric Wards in Mosul Hospitals)**

We are Pleased to inform you that the collegiate committee for medical research ethics / University of Mosul has reviewed your research documents and has approved your protocol.

Thank you
Yours Sincerely

Prof. Dr. Basil Mohammednathir Saeed
Chairman University Committee for
Ethics of Medical Researches

http://qua-ass.com E.mail :Medical-ethics@uomosul.edu.iq



وزارة التعليم العالي والبحث العلمي
جامعة الموصل
كلية التمريض
شعبة الدراسات العليا
العدد: ٣٣٠٤
التاريخ: ٢٠٢٤/١٠/٦

بسم الله الرحمن الرحيم

Ministry of Higher Education
& Scientific Research
University of Mosul

NO:
Date:

إلى / دائرة صحة نينوى / مركز تدريب وتطوير الملاكات
م / تسهيل مهمة

دائرة صحة نينوى
الواردة
العدد / ١١٠٠٨
التاريخ ٦ / ١٠ / ٢٠٢٤

تحية طيبة :

يرجى تسهيل مهمة طالبة الماجستير نور طه عبد الله احمد / كلية التمريض لزيارة المستشفيات والمراكز الصحية التابعة لدائرتكم لأجراء البحث الموسوم" نسبة حدوث الاعراض الاكتائبية لدى الممرضين العاملين في ردهات الاطفال في مستشفيات مدينة الموصل "

شاكرين تعاونكم معنا ... مع التقدير

أ.د سلوى حازم المختار
العميد
٢٠٢٤ / ١٠ / ٦

الدكتور الصيدلي
حسن واثق رؤوف
-10- 2024
دائرة صحة نينوى
معاون مدير

جامعة الموصل - كلية التمريض
الدراسات العليا

نسخة منه إلى :
- الدراسات العليا / مع الاوليات
- نسخة الدائرة

E-Mail:

University of Mosul
Mosul – Iraq
☎( )

جامعة الموصل
الموصل – العراق
☎ ( ) داخلي

(Appendix-B)

وزارة الصحة
دائرة صحة نينوى
مركز التدريب والتنمية البشرية
العدد/ ٥٢١٧٧
التاريخ: ٢٠٢٤/١١/١٤

جمهورية العراق
وزارة الصحة العراقية
Iraqi Ministry of Health
Founded 1920

Ministry Of Health
Ninavah Health Directorate
Training And Human
Development Center

(التعداد السكاني...ركيزة التنمية)

إلى/ م. البتول التعليمي، م. ابن سينا التعليمي، م. ابن الاثير للاطفال، م. الخنساء التعليمي، م. السلام التعليمي، م. الموصل العام)

م / تسهيل مهمة

تحية طيبة:-

استناداً الى موافقه لجنة البحوث العلمية والأخلاقية بجلستها المرقمة (٢٦١) والمنعقدة في دائرتنا بتاريخ ٢٠٢٤/١١/٦ على مشروع البحث المرقم(٢٠٢٤٢٠٥). حصلت الموافقة على إجراء البحث ضمن الخطة المقدمة لمشروع البحث المدرج تفاصيله فيما يأتي:

عنوان البحث:

Incidence of depressive symptoms among nurses of pediatric ward in Mosul hospitals.

الباحثة: نور طه عبدالله.

المشرف العلمي: مدرس. نواف محمد ظاهر.

مدة البحث: من ٢٠٢٤/١١/١٠ الى ٢٠٢٥/٧/٦

المشرف الميداني: (د.حنان محمد علي/ م. البتول التعليمي، د. وفاء محمد حسين/ م. السلام التعليمي، ممرض جامعي ليث عيسى حسن/ م. ابن الاثير للاطفال، د. بان علي حسين/ ابن سينا التعليمي ممرض جامعي ميسر جاسم خليل/ م. الخنساء التعليمي، ممرض جامعي احمد خضير احمد/ م. الموصل العام).

يرجى تزويده بالمعلومات والعينات المطلوبة من الإمكانيات المتاحة على أن لا تتحمل وزارة الصحة والمؤسسات التابعة لها أي تبعات مادية. وعلى الباحث تقديم نسخة من البحث بعد الانتهاء منه إلى لجنة البحوث.

للتفضل بالاطلاع... مع الاحترام

الصيدلاني
دلشاد علي عبدالله شنگالي
المخول بصلاحيات المدير العام
١١ / ١١ / ٢٠٢٤

الدكتور الصيدلاني
حسن واثق رؤوف العنزي
11 -11- 2024
دائرة صحة نينوى
معاون مدير عام للشؤون الفنية

نسخة منه الى:-
- مكتب المدير العام / للعلم مع الاحترام
- جامعة الموصل/كلية التمريض/ شعبة الدراسات العليا -كتابكم ذي العدد ٣٣٠٤ في ٢٠٢٤/١٠/٦ يرجى تبليغ الباحث والمشرف بتسليمنا نسخة من الأطروحة أو البحث بعد طبعها وإقرارها مع التقدير
- مركز التدريب والتنمية البشرية - ادارة المعرفة ... مع الاوليات

موصل / حي الوحدة
ministrynineveh@gmail.com
msllhrtdc@gmail.com

(Appendix-c)

نموذج الموافقة على المشاركة في البحث

بعد ان قام الباحث الطالبة نور طه عبدالله (بشرح مشروع البحث الخاص به بالتفصيل واجاب عن كل استفساراتي المتعلقة بمشاركتي بالبحث تحت عنوان (**نسبة حدوث الاعراض الاكتابية بين الممرضين العاملين في ردهات الاطفال في مستشفيات الموصل)** واطلعني الباحث عن فوائد بحثه واهميتة العلمية والعملية. كما اوضح ان مشاركتي فيه تطوع مني وبمحض ارادتي وان باستطاعتي رفض المشاركة كما انه ب امكاني سحب مشاركتي بالدراسة متى شئت ولاي سبب كان او ان لا اجيب على اي سؤال لا ارغب في اجابته كما تم اعلامي بان مشاركتي بالبحث لن تحملني اي نفقات او مسائلة من شانها الضرر بمهنتي او شخصي وان المعلومات الناتجة عن مشاركتي سوف تعامل بسرية تامة ولن يطلع عليها اي شخص غير معني بالبحث وان هذه المعلومات ونتائجها هي للاغراض العلمية فقط ولن تكون هناك اية اشارة الى شخصي او عائلتي في اي منشور عن هذه الدراسة. ولاجل هذا فاني اصادق على مشاركتي في هذا البحث.

توقيع المشارك:

تاريخ: / /

توقيع الباحث:

(Appendix-D)

اعداد الممرضين في مستشفيات د ص نينوى المركز

ت	اسم المؤسسة	الممرضين
1	مستشفى الجمهوري التعليمي	513
2	مستشفى ابن سينا التعليمي	739
3	مستشفى البتول التعليمي	329
4	مستشفى الخنساء التعليمي	269
5	مستشفى الشفاء (الحميات والصدرية والتنفسية)	188
6	مستشفى الموصل العام	574
7	مستشفى الأورام والطب النووي التخصصي	107
8	مستشفى ابن الاثير للأطفال	425
9	مستشفى السلام التعليمي	871
10	المستشفى البحثي في جامعة الموصل	387
11	مستشفى الحدباء التخصصي	203
	المجموع	4605

(Appendix-E)

بسم الله الرحمن الرحيم

Republic of Iraq
Ministry of Higher Education and Scientific Research
University of Mosul
Statistical Consultancy Bureau
(SCB)

الجمهورية العراقية
وزارة التعليم العالي والبحث العلمي
جامعة الموصل
المكتب الاستشاري الإحصائي

العدد: م إ ح/١٢
التاريخ: ٢٠/٢/٢٠٢٥

م/ تأييد رصانة التحليل الاحصائي

يؤيد المكتب الاستشاري الإحصائي بان الجانب الإحصائي في رسالة الماجستير الموسومة بعنوان:

(نسبة حدوث الاعراض الأكتئابية بين الممرضين العاملين في ردهات الاطفال في مستشفيات الموصل)

للباحثة نور طه عبد الله – كلية التمريض – جامعة الموصل ، قد تم تقييمها ومراجعتها من حيث دقة التحليلات الاحصائية والتعليقات على النتائج وتفسيرها وبعد أن أتمت الباحث الالتزام بإكمال التعديلات التي ثبتها لها الخبير على المتن أصبحت الرسالة رصينة قدر تعلق الامر بسلامة الجانب الاحصائي (فقط) فيها.

أسم الخبير:

- م.خيري بدل رشيد

مع التقدير

م.خيري بدل رشيد
المدير
٢٠/٢/٢٠٢٥

نسخة منه الى:

- مكتب السيد رئيس مجلس الإدارة المحترم للتفضل بالعلم والاطلاع ..مع التقدير
- الصادرة مع الأوليات

المكتب الاستشاري الإحصائي/ كلية علوم الحاسوب والرياضيات/ جامعة الموصل/ ثقال ٠٧٧٢٦٦٢٣٣٣١ / بريد الكتروني statisticalconsultancybureau@gmail.com

(Appendix M1)
Study Tool – Interviewing Questionnaire

Part one: Demographic information.

1- Age: ……

2- Gender: male ☐ female ☐

3- Housing

Name of neighborhood or area…….

Rural ☐ urban ☐

Housing type ownership rent

4- Marital ☐ status: ☐

Single ☐ Married ☐ divorce ☐ A widower ☐

Husband profession…… Wife profession……

Number of family member: ……..

5- Academic achievement:

Nursing Preparatory School ☐

Diploma (Technician nurse) ☐

Bachelors (university nurse) ☐

Master ☐

Ph. D ☐

6- Years of service: ……...

7- Number of working hours: ……

8- Number of working days during the week: ……..

9- The name of the hospitals where you work: ……

10- Monthly income: ……

Part two: Risk factors

1- Psychological factors:

N	items	Yes	No
1-	Have you been exposed to psychological violence?		
2-	Have you had anxiety before ?		
3-	Have you lost someone dear to you?		
4-	As a nurse, have you experienced depression after pregnancy?		
5-	Do you have difficulty performing work?		
6-	Have you seen a mental health professional?		
7-	Do you smoke cigarettes and hookahs?		
8-	Do you compare your life to others?		
9-	Are you satisfied with your job?		
10-	Do you like working as a nurse?		
11-	Do you watch a lot of television and other websites?		

2- Physical and health factors.

N	Paragraph	Yes	No
1	Have you been exposed to physical violence?		
2	Have you suffered from obesity?		
3	Do you have health problems and constant pain resulting from a specific disease?		
4	Do you have a history of anorexia?		
5	Do you exercise?		
6	Do you suffer from sleep problem?		
7	Do you take medications and narcotics?		

3-Genetic factors:

N	Paragraph	Yes	No
1	Has anyone in your family suffered from depression before?		
2	Did any of your family members commit suicide?		

4-Environmental factors:

N	Paragraph	Yes	No
1	Does anyone in your family have a history of drinking alcohol?		

2	Do you been exposed to harassment while working?		
3	Do you have trouble communicating and relationship with your co-workers?		
4	Do you have a problem in communicating and relationship with your family?		
5	Is the environment you work in competitive?		
6	Do you suffer from bullying at work?		
7	Do you depend on fast food?		

Part three: zung self –Rating depression scale.

For each item below please place a check mark (check mark) in the column that best describes the number of times you have felt or acted this way during the past two weeks, including today.

The first axis: positive feeling and symptoms**.**

N	Paragraph	Never	Rarely	Some times	Mostly	Always
1	My mind is as clear as ever.					
2	I find it easier to do the thing I'm used to.					

3	I feel hopeful about the future.					
4	I find it easy to make decisions.					
5	I feel useful and people need me.					
6	My life is beautiful and full of joy.					
7	I still enjoy the things I used to do					
8	Morning is the time I feel the best.					
9	I eat as much as I used.					
10	I still enjoy sex.					

The second axis: negative feelings and symptoms.

N	Paragraph	Never	Rarely	Some times	Mostly	Always
1	I feel down-hearted and blue					

2	I have crying spells or feel like it.					
3	I have difficulty sleeping at night.					
4	I notice that I am losing weight.					
5	I suffer from constipation.					
6	My heart beats faster than usual.					
7	I feel tired for no reason.					
8	I feel more restless and I cannot stay still.					
9	become more nervous than usual.					
10	I feel like others would be better off if I died.					

11	I did not seem to be able to feel positive emotion.					
12	I found it difficult to take initiative in doing things.					
13	I felt like I did not have anything to look forward to.					
14	I felt sad, distressed and lonely.					
15	I lost the feeling of enthusiasm for anything.					
16	I felt like I had little value as a person.					
17	I felt like life had no meaning.					
18	I felt like talking less than usual.					

19	I was speaking more slowly than usual.					
20	I thought bad things would happen to me.					

(Appendix-M2)

استمارة استبان

الجزء الأول: المعلومات الديموغرافية:

1-العمر: .....

2-الجنس: ذكر ☐ انثى ☐

3-السكن :

اسم الحي او المنطقة: .....

ريف ☐ مدينة ☐

نوع السكن: ملك ☐ ايجار ☐

4-الحالة الاجتماعية: اعزب ☐ متزوج ☐ مطلق ☐ ارمل ☐

مهنة الزوج: ..... مهنة الزوجة.....

عددافراد الاسرة:.....

5-االتحصيل الدراسي

اعدادية التمريض ☐

دبلوم (ممرض فني) ☐

بكلوريوس ممرض جامعي ☐

ماجستير ☐

دكتوراة ☐

6-سنوات الخدمة:.....

7-سنوات الخبرة:..... في الوحدة التي تعمل بها

8- عدد ساعات العمل:.....

9-عدد ايام الدوام خلال الاسبوع:.....

10- اسم المستشفى التي تعمل بها.....

11- مكان العمل داخل المستشفى.....

12- الدخل الشهري.....

الجزء الثاني: عوامل الخطورة

1- العوامل النفسية:

ت	الفقرة	نعم	لا
1	هل تعرضت للعنف النفسي؟		
2	هل كان لديك قلق مسبقا؟		
3	هل فقدت شخص عزيز عليك؟		
4	كممرضة هل تعرضتي للاكتئاب بعد الحمل؟		
5	هل لديك صعوبة في اداء العمل؟		
6	هل راجعت اخصائي الصحة النفسية والعقلية؟		
7	هل تدخن السجائر والاراكيل ؟		
8	هل تقارن حياتك بالاخرين؟		
9	هل انت راضي عن وظيفتك؟		
10	هل تحب العمل كممرض؟		
11	هل تشاهد التلفاز بكثرة ومواقع الانترنت الاخرى؟		

2-العوامل الجسدية و الصحية:

ت	الفقرة	نعم	لا
1	هل تعرضت للعنف الجسدي؟		
2	هل عانيت من السمنة؟		
3	هل لديك مشاكل صحية والم مستمر ناتج عن مرض معين؟		
4	هل عانيت من تاريخ مرضي لفقدان الشهية؟		
5	هل تمارس الرياضة؟		
6	هل تعاني مشاكل بلنوم بسب نظام الدوام الليلي؟		
7	هل تتناول الادوية والمواد المخدرة؟		

3- العوامل الوراثية

ت	الفقرة	نعم	لا
1	هل تعرض احد افراد اسرتك لاكتئاب سابقا؟		
2	هل انتحر احد افراد اسرتك؟		

4-العوامل البيئية:

ت	الفقرة	نعم	لا
1	هل لدى احد افراد عائلتك تاريخ بشرب الكحول؟		
2	هل تعرضت للتحرش اثناء العمل؟		
3	هل لديك مشكلة في التواصل والعلاقة مع زملائك في العمل؟		
4	هل لديك مشكلة في التواصل والعلاقة مع اسرتك؟		
5	هل البيئة التي تعمل بها تنافسية؟		
6	هل تعاني من التنمر اثناء العمل؟		
7	هل تعتمد على الماكولات السريعة؟		

الجزء الثالث: الاستبيان

مقياس زونغ للاكتئاب ذاتي التقييم

بالنسبة لكل عنصر ادناه يرجى وضع علامة الاختيار (صح) في العمود الذي يصف عدد المرات التي تستخدمها على افضل وجه شعرت او تصرفت بهذه الطريقة خلال الاسبوعين الماضين من ضمنهم اليوم.

المحور الاول: المشاعر والاعراض الايجابية.

ت	الفقرة	ابدا	نادرا	احيانا	اغلب الوقت	دائما
1	ذهني واضح كما كان من قبل					

2	أجد أنه من السهل القيام بالأشياء التي اعتدت عليها					
3	أشعر بالأمل بشأن المستقبل					
4	أجد أنه من السهل اتخاذ القرارات.					
5	أشعر أنني مفيد والناس تحتاجني					
6	حياتي جميلة وممتلئة بالبهجة					
7	ما زلت أستمتع بالأشياء التي اعتدت القيام بها					
8	الصباح هو افضل وقت اشعر به					
9	انا اكل بقدرما اعتدت عليه					
10	مازلت استمتع بالعلاقة الحميمة					

المحور الثاني: المشاعر والاعراض السلبية.

ت	الفقرة	ابدا	نادرا	احيانا	اغلب الوقت	دائما

1	اشعر بالاحباط					
2	لدي نوبات بكاء او اشعر بذلك					
3	لدي صعوبة في النوم ليلا					
4	الاحظ اني افقد الوزن					
5	اعاني من الامساك					
6	قلبي ينبض بشكل أسرع من المعتاد					
7	أشعر بالتعب دون سبب					
8	انا مضطرب ولا أستطيع البقاء ساكناً					
9	انا أكثر عصبية من المعتاد					
10	أشعر أن الآخرين سيكونون أفضل حالًا إذا مت					
11	لم يبدو لي أن بإمكاني الإحساس بمشاعر إيجابية على الإطلاق					
12	وجدت صعوبة في أخذ المبادرة بعمل الأشياء					
13	شعرت بأن ليس لدي أي شيء أتطلع إليه					
14	شعرت بالحزن والغم والوحدة					
15	فقدت الشعور بالحماس لأي شيء					

16	شعرت بأن قيمتي قليلة كشخص					
17	شعرت بأن الحياة ليس لها معنى					
18	شعرت برغبة في التحدث أقل من المعتاد.					
19	كنت اتحدث ببطء اكثر من المعتاد.					
20	اعتقدت ان اشياء سيئة ستحدث لي.					

(Appendix F)

اشراف ميداني

اني : الدكتورة وفاء محمد حسين

العنوان الوظيفي: اخصائية نفسية

محل العمل : مستشفى السلام/سعيد نشيد

لا مانع لدي من الاشراف الميداني على طالب الدراسات العليا

اسم الباحث : نورهان عبد السلام

لبحثه الموسوم :

سبب حدوث الاعراض الاكتئابية بين الامهات العاملين في رعايات الاطفال في مستشفيات مدينة الموصل

الدكتورة
وفاء محمد حسين
اخصائية نفسية
٢٠٢٤/١٠/٩

الدكتورة
رواء يونس الراوي
معاون المدير للشؤون العلمية
٩/١٠

التوقيع:

(Appendix-K)

List of experts

ت	اسم الخبير	اللقب العلمي	الشهادة	محل العمل	سنوات الخبرة
1.	د.رفاعي ياسين حميد	استاذ	دكتوراة صحة مجتمع	كلية التمريض/ جامعة الموصل	32
2.	د.اسامة حامد محمد	استاذ	دكتوراة علم النفس التربوي	كلية التربية للعلوم الانسانية/ جامعة الموصل	31
3.	د. رضوان حسين ابراهيم	استاذ	دكتوراة تمريض صحة مجتمع	كلية التمريض / جامعة نينوى	28
4.	ا.م.د. محمود محمد احمد	استاذ	دكتوراة تمريض صحة مجتمع	كلية التمريض / جامعة الموصل	20
5.	د.زكريا يحيى الجمال	استاذ	احصاء	قسم الاحصاء والمعلوماتية / جامعة الموصل	19
6.	ا.م.د. نصر موفق يونس	استاذ مساعد	دكتوراة تمريض صحة مجتمع	كلية التمريض/ جامعة الموصل	22
7.	د.زياد طارق مدالله	استاذ مساعد	دكتوراة تمريض الصحة النفسية والعقلية	جامعة الموصل /كلية التمريض	18
8.	م. د. شذى عبدالرحمن حسو	مدرس	دكتوراة طب مجتمع	كلية التمريض /جامعة الموصل	25
9.	قيس محمد علي.ا.م.د	مدرس	دكتوراة علم النفس التربوي	كلية التربية للعلوم الانسانية/ جامعة الموصل	20
10.	م.د.ريان ابراهيم خليل	مدرس	دكتوارة تمريض صحة الطفل والمراهق	كلية التمريض/ جامعة الموصل	16

.11	م.د. لؤي امجد محمود	مدرس	دكتوراة تمريض صحة الطفل والمراهق	كليةالتمريض/جامعة الموصل	16
.12	د.محمد احمد سلطان الولي	مدرس	دكتوراة تمريض اطفال	كلية التمريض /جامعة الموصل	13

الخلاصة

الخلفية العلمية : يؤثر الاكتئاب بين الممرضـــين في وحدات الأطفال على صـــحتهم البدنية والعقلية، بالإضـافة إلى إنتاجيتهم وجودة الرعاية التي يقدمونها للمرضـى. الممرضـون، على وجه الخصوص، يتعرضون لمستويات عالية من الضغط البدني والنفسي، مما يزيد من خطر الإصابة بمشاكل الصحة العقلية مثل القلق والاكتئاب.

الهدف: تهدف الدراسـة إلى تقييم حدوث أعراض الاكتئاب بين الممرضـين داخل وحدات الأطفال في مسـتشـفيات مدينة الموصـل، وتحديد نطاق الأعراض الاكتئابية، وفحص العوامل المرتبطة بالاكتئاب.

المنهجية : تم إجراء دراسـة وصـفية كمية باسـتخدام تصـميم مقطعي من الفترة من 26 سـبتمبر 2024 إلى 26 يونيو 2025 باسـتخدام طريقة العينة العشـوائية البسـيطة. شـملت العينة 119 ممرض وممرضـة أطفال من مسـتشـفيات الموصـل. تم جمع البيانات باسـتخدام مقياس زونغ للاكتئاب الذاتي لقياس الأعراض الاكتئابية. تم ترميز البيانات وتحليلها باســـتخدام برنامج SPSSالإصدار 27.

النتائج: أظهرت الدراسة أن 3.3% من الممرضين يعانون من أعراض اكتئاب خفيفة، و84.2% لديهم أعراض اكتئابية متوسـطة الشـدة، و11.7% يعانون من أعراض شـديدة. العوامل المرتبطة بالاكتئاب شـملت العوامل النفسـية (55%، قيمة الاحتمال 0.045)، والعوامل البدنية والصـحية (51%، قيمة الاحتمال 0.001)، والعوامل الوراثية (39%، قيمة الاحتمال 0.001)، والعوامل البيئية (46%، قيمة الاحتمال 0.018).

الاستنتاجات :تسلط الدراسة الضوء على وجود ارتباط قوي بين أعراض الاكتئاب ومتطلبات العمل، مع كون التعب، والمشاكل الحركية، وتغيرات الشهية من الأعراض الشائعة بين الممرضين.

التوصيات :يُوصى بتنفيذ برامج تعزيز المرونة، وتشجيع الممرضين على إيجاد معنى في عملهم، وتوفير الدعم من خلال العلاقات المعنوية والمساعدة في العمل اليومي.

جامعة الموصل
كلية التمريض

نسبة حدوث الاعراض الاكتئابية بين الممرضين العاملين في ردهات الاطفال بمستشفيات مدينة الموصل

رسالة ماجستير علوم في التمريض

نور طه عبدالله أحمد الجبوري

بإشراف

م.د. نواف محمد ظاهر

دكتوراه فلسفة تمريض عام

١٤٤٧هـ_____٢٠٢٥م

جامعة الموصل
كلية التمريض

نسبة حدوث الاعراض الاكتئابية بين الممرضين العاملين في ردهات الاطفال بمستشفيات مدينة الموصل

رسالة ماجستير علوم في التمريض

تقدم بها

نور طه عبدالله أحمد الجبوري

الى مجلس كلية التمريض / جامعة الموصل

وهي جزء من متطلبات نيل شهادة الماجستير في علوم التمريض

بإشراف

م. د. نواف محمد ظاهر

دكتوراه فلسفة تمريض عام

١٤٤٧هـ_____٢٠٢٥م