An-Najah National University

Faculty of Graduate studies

Prevalence and Severity of Depression among Mothers of Disabled Children in Palestine

By

Nemer Ahamd Nemer Hamamreh

Supervisor

Dr. Aidah Abu Elsoud Alkaissi

Co-Supervisor

Dr. Sabrina Russo

This Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Community Mental Health for Nursing Program, Faculty of Graduate studies, An-Najah National University, Nablus, Palestine.

2015

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Nemer Ahamd Nemer Hamamreh

This Thesis was Defended Successfully on 16/2/2015 and approved by:

Defense Committee Members	Signature
1. Dr. Aidah Alkaissi / Supervisor	Aidah Alkaissi
2. Dr. Sabrina Russo / Co-Supervisor	
3. Dr. Samah Jaber / External Examiner	
4. Dr. Eman Alshaweesh / Internal Examiner	Eman Alshaweesh

الإهداء

إلى من ربياني صغيرا.

إلى زوجتي الغالية التي شجعتني في رحلتي إلى التميز والنجاح .

إلى كل من علمني ، وأخذ بيدي ، وأنار لي طريق العلم والمعرفة.

إلى كل من ساندني ، ووقف بجانبي.

إلى كل من قال لي : لا ، فكان سببا في تحفيزي.

إلى كل من كان النجاح طريقه ، والتفوق هدفه ، والتميز سبيله.

Acknowledgment

Words cannot truly express my deepest gratitude to participant mothers for their cooperation, my supervisor, Dr. Aidah Abu Elsoud Alkaissi and Dr. Sabrina Russo for their countless hours of reflecting, reading and encouraging, enabling me to develop and understand the subject.

My thanks and appreciation go to my thesis committee members for their encouragement, support, interest, and valuable hints.

I would like to extend my gratitude to all those who contributed to this study successfully.

Thanks also go to appreciate the efforts of all respect of the teaching staff members of the Mental Health Nursing Department at An-Najah National University.

Sincere thanks for rehabilitation centers

- Care for Children with Special Needs Society -Nablus.
- Farah Center-Nablus.

الإقرار

أنا الموقع أدناه مقدم الرسالة التي تحمل العنوان :

Prevalence and Severity of Depression among Mothers of Disabled Children in Palestine

أقر بأن ما اشتملت عليه هذه الرسالة إنما هي نتاج جهدي الخاص، باستثناء ما تمت الإشارة إليه حيثما ورد، وأن هذه الرسالة ككل، أو أي جزء منها لم يقدم لنيل أية درجة أو لقب علمي أو بحثي لدى أية مؤسسة تعليمية أو بحثية أخرى.

Declaration

The work provided in this thesis, unless otherwise referenced, is the researcher's own work, and has not been submitted elsewhere for any other degree or qualification.

Student Name: **اسم الطالب:** نغم أحمد نمر حمارة

Signature: **التوقيع:**

Date: **التاريخ:** ١٦/١٢/٢٠١٥م

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List of Abbreviations

WHO	World Health Organization
HIV	Human Immunodeficiency Virus
AIDS	Acquired Immune Deficiency Syndrome
PCBS	Palestinian Central Bureau of Statistics
RBD	Recurrent Brief Depression
SD	Stander Deviation
MDD	Major Depression Disorder
BDI	Beck Depression Inventory
DSM-IV	The 4th edition of the Diagnostic and Statistical Manual of Mental Disorders
ICD-10	The 10th revision of the International Classification of Diseases
SAD	Seasonal Affective Disorder
CP	Cerebral Palsy
IRB	Institutional Review Board
APA	American Psychiatric Association
DS	Down Syndrome
SPSS	Statistical Package for Social Science

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Abstract

Introduction: Mothers of children with disabilities often experience greater stress and emotional demands than other mothers do. Mothers of children with disabilities showed also more psychological distress than other member in their families, as they are the primary caregivers for their children. Childhood disability often imposes a social and emotional burden for children and their families.

Aim: The aim of the study is to assess the prevalence and severity of depression among mothers of disabled children in the north of the West Bank in order to establish baseline data and suggest recommendations to policy makers and professional workers.

Subject and Methods: A descriptive, analytical kind (cross sectional) study. About 200 mothers were included in the study divided in two groups, including 100 mothers of children with disabilities (age range, 2-16years) as a study group, and 100 mothers of normally developing children (age range, 2-16 years) as a control group.

There were 47% girls and 53% boys in the children of the control group and there were 38% girls and 62% boys in the children of the study group .

These children have different diagnoses with a 10% down syndrome, 18% hearing disabilities, 7 % physical disability, 11% speech disorders, 18% autism, 14% mental retardation, 12% cerebral palsy and 10 % other disorder The mothers' average ages in the study group and control group were 32.6 (SD±6.3) and 31(SD± 5.7) years, respectively. A demographic information form and Beck Depression Inventory were administered to mothers of these children who met the inclusion criteria. The assessments were performed during children´s treatment in rehabilitation centers.

Result: The prevalence of depression was higher among mothers caring for disabled children than mothers of non-disabled children in the control group. Fifty four percent of mothers of disabled children had a mild to severe level of depression and 18% of the them suffered from moderate to severe depression as derived from Beck Inventory score.

When we compare between the study and control groups, the study reveals that there are many factors that increase the prevalence of depression among mothers in the study group compared to control group which include: child's age <10 years, mother's age <40 years, middle and low income, and un-employment.

On the other hand there was no association in the study group between mothers´ depression score and mothers´ age, child age, educational level of the mothers, family style and family income.

For the control group (mothers of normally developing children) 15% of them had a mild to severe level of depression and 2% had moderate to severe depression and there was a significant correlation between mothers´ depression score and mother´s age ($p=0.010$). There was a relation between mothers depression score and family income, but it was not statically significant ($p=0.07$).

The result of this study indicates that there was a significant difference between mothers' depression score with respect to having or not having disabled children ($u=1911$, $p<0.01$).

The mothers of children with physical disabilities (mean rank was 60.36) and cerebral palsy (rank mean was 58.67) have a higher depression score than mothers with children of other kinds of disabilities, and the lowest level of depression score was for mothers whose children have down syndrome, which had a rank mean of 38.45.

Conclusion:

The results of this study indicate that 54% of the mothers of disabled children had various degrees of depression, with 18 % suffering from severe depression. For the mothers with non-disabled children, 18% had

various degrees of depression, which is within the normal statistics (12-25%) **(WHO, 1990)**.

In study group the study reveals that the disability itself tend to be consider as a strong factor in the same group to increase the prevalence of depression, in contrary in control group the study reveals that there are many factors to increase the prevalence of depression among mothers which include: mothers age>40, child age >10, low family income and low educational level,

When we compare between the study and control groups, the study reveals that there are many factors to increase the prevalence of depression among mothers in the study group compared to control group which include: child's age <10 years, mother's age <40 years, middle and low income, and un-employment.

Recommendation: Early recognition of depression symptoms in mothers of disabled children should be of great concern for health care providers. The effective rehabilitation programs should provide ample opportunity for repeated follow-up interviews that not only offer information about children's disabilities but also psychological support for mothers. Shifting the rehabilitation services from child-centered to family-centered services through providing supportive services is recommended

Key words: disabled children, depression, Beck depression inventory, extended family, nuclear family.

Chapter One

Introduction

1.1 Introduction

Depression is one of the most common psychiatric problems. Unfortunately, the prevalence of depression among women is very high around the world (12- 25) percent. Depression was the fourth reason for loss work in 2000 and in 2002 it was the second incapacitating illness among all physical and mental illnesses **(Ghoreishizadeh et al., 2005)**.

In view of the overall statistics of mental disorders which the World Health Organization (WHO) announces, approximately 1% of the world people suffers from severe mental problem and 15 % complain of minor mental disorders **(WHO, 1990)**. The prevalence of disability is very high in the world, it was estimated that 300 million from population to have depression at the end of the year 2000 **(Mirkhani& Majid, 1999)**.

According to The World Health Organization reports that the overall prevalence of mental disability is estimated from 1-3% **(WHO, 2001)**.

WHO's define a disabled person as an individual that has genetically or during the course of living lost all or part of his/her physical or mental capabilities, or both either temporarily or permanently; and is not able to have an independent life without the help of special equipment or care **(Mirkhani & Majid, 1999)**. There are many different terminologies for disability such as impairment, disability, and handicap **(Mirkhani& Majid, 1999)**. Many examples of disability exist , usually

experts generally include the these terms: developmental disabilities; learning disability; mental retardation; physical and orthopedic disabilities; chronic conditions; diabetes; visual impairment; speech and language difficulties; deafness ; autism and learning impairment **(Sullivan et al., 2000)**.

Childhood disability usually imposes to emotional and social burden for children and mothers **(Farmer et al., 2004)**. when mother gave birth of disabled child, she reports an experience of complex feelings this include the feeling of losing someone beloved **(Quine & Pahl, 1987)**.

The reaction to a loss started with shock, denial, dealing, depression, and acceptance **(Tomkiewicz , 1987)**.

And usually depression, anxiety and guilty feelings, were part of this process and it took more than two months to reach the acceptance-stage in some mothers and those developed more severe symptoms than who accept the new situation **(Kazak et al., 1985)**.

Having disability brings different problem for a child and her mother. This condition usually begin with a shock. Sometimes she feels of guilty, sorrow and helplessness. When children are diagnosed with a kind of disability, his mother may experience psychological problem similar to that experienced by suicidal individuals **(Ellis & Hirsch, 2000)**.

Obligation in dependent daily living activities demolishes dynamics in the family. Consequently, family members' roles have to be changed. These

different responsibilities cause stress, anxiety, and depression. Depression among parents of children having disabilities is an important symptom for therapists and other professionals to consider when providing treatment for a child or family **(Smith et al., 1993)**.

The fundamental role of the mother in raising and stabilizing the family makes it even more important for her to receive support, as it has been found that giving support to parents of disabled children will noticeably reduce their mental problems, such as depression, stress, and anger **(Capuzzi, 1989)**.

The most affected person in the family is usually the mother in such a situation. Mothers of children with disabilities often experience greater stress and emotional demands than do other mothers **(Smith et al., 1993)**.

Mothers have to undertake much stress, because they are alone with their children in daily life. Not all mothers of children with disabilities have difficulties of adaptation, even when they have to face highly stressful life situations. However, it has been explained that children and mothers are at risk of stress-related problems when mothers are overburdened by the demands of care giving, earning a living, and other responsibilities **(Ganong et al., 2003)**.

Daily care routine, economic problems, receiving appropriate help and education are the basic hardships of the mothers of a disabled child **(Kazak & Marvin, 1984)**. Diagnostic confusions, behavioral and health problems,

and feeling of loneliness in parents also add to these hardships **(Kazak & Marvin, 1984; Kazak,1987; Molsa & Ikonen-Molsa, 1985)**.

The increase in the severity of the disability results in a more dependent child, more responsibility for the mothers. As a consequences this cause more psychological problem in these mothers **(Blacher et al., 1987)**.

1.2 Significance of the study

Depressive symptoms are sometimes undetected, and so inadequately treated, which complicates and bring other consequences, such as failure in therapy, poor quality of life, suicidal behavior and social handicaps with higher morbidity and mortality **(Kaplan & Sadock, 2003)**.

In Palestine there are enough database about depression among mothers of disabled children, and we as community mental health professionals should take the responsibilities to help mothers who have disabled children.

There is an increase in the number and severity of disability among children. The prevalence of depression is unfortunately very high **(Ghoreshizadeh, 2005).** Mothers usually are the most affected person in the family and there is an increase in their responsibilities and demands.

In eastern society, it is mostly women who carry the responsibility of the activity daily living of their children **(Eicher et al., 1993).**

There are few researches about the topic in Palestine and most of the researches highlighted on the disability of the children and neglected the effects of disability on their mothers.

1.3 Hypothesis

The following hypotheses were tested:

- Mothers of children with disabilities have higher depression scores than control mothers.
- Elevated depression scores are more common in mothers who live in rural areas compared to urban areas in both groups.
- Mothers have a high depression score if the disable child is female compare to male.
- Elevated depression scores are more common in mothers who live with extended family in the study group.

1.4 Aim of the study

The aim of this study is to assess the prevalence and severity of depression symptom among mothers of disabled children in the north of the West Bank in order to establish baseline data and suggest recommendations to policy makers and professional workers.

1.5 General objective of the study

- To assess the prevalence of depression symptoms among mothers of disabled children in the north of the West Bank.
- To establish baseline data in the West Bank to enable further needed research studies about mothers of disabled children.

1.6 Specific objectives of the study

To describe in the study and control groups the relation between:

- Level of education and depression score for mothers.
- Age of mothers with their depression score.
- Family income and depression score for mothers.
- Depression score of mothers and their children's sex and age.
- Residence of mothers and their depression score.
- Family style and mothers depression score.
- Mothers' employment and depression score.

Chapter Two
Background

2.1 Introduction

WHO announce about six hundred million people live with disabilities of various types in the world, and the number is increasing due to increase in chronic diseases, injuries, falls, violence and car crashes .Total 80% of them live in low-income countries, most of them are poor with limited or no access to basic services, including rehabilitation facilities **(WHO, 2005)**.

2.2 Disabilities

Disability is an umbrella term, covering impairments, activity limitations, and participation restrictions. An impairment is a problem in body function or structure; an activity limitation is a difficulty encountered by an individual in executing a task or action; while a participation restriction is a problem experienced by an individual in involvement in life situations. Thus, disability is a complex phenomenon, reflecting an interaction between features of a person's body and features of the society in which he or she lives **(WHO, 2012)**.

The term "disability" broadly describes an impairment in a person's ability to function, caused by changes in various subsystems of the body, or in mental health. The degree of disability may range from mild to moderate, severe, or profound **(Funnell et al., 2008)**.

2.3 Disability Definitions

In 1980, the World Health Organization defined disability as any restriction or lack of activity resulting from an impairment to perform an activity in the manner or average considered to be normal for people of the same age, sex, and culture **(WHO, 1980)**. In a revision of this definition, WHO changed the definition to be the nature and extent of functioning of a person. It may be limited by nature, duration and quality **(WHO, 1990)**.

Disability is present, or a person is considered disabled, when a set of functions, either desired or required, exists, but cannot be independently performed when attempted in a specific environment. While the desired functions may be specific preferences of the person, the required functions may be dictated by the environment **(Walter, 1990)**.

A disability is any continuing condition that restricts everyday activities. The Disability Services Act (1993) defines disability as attributable to an intellectual, psychiatric, cognitive, neurological, sensory or physical impairment or a combination of those impairments, which is permanent or likely to be permanent, which may or may not be of a chronic or episodic nature, and which results in substantially reduced capacity of the person for communication, social interaction, learning or mobility and a need for continuing support services **(Disability Service Commission, 2007, page 2-3)**.

2.4 Types of Disability

Conditions causing disability are classified by the medical community as:

- Inherited (genetically transmitted)
- Congenital, meaning caused by a mother's infection during pregnancy, or by injury during or soon after birth.
- Acquired, such as conditions caused by illness or injury; or of unknown origin **(Funnell et al., 2008)**

2.5 Disability in Palestine

The wide definition of disability states that a person with disability suffers from some difficulty or a lot of difficulties or cannot at all. In addition, the Disability Survey measures disability in its narrow definition as recommended by the Washington Group for Disability Statistics: A person with disability suffers from a lot of difficulties or cannot at all.

According to PCBS, the percentage of disabled people in Palestine is 2.9% in the West Bank and 2.4% in the Gaza strip. This statistic is according to a narrow definition of disability, and for a broader understanding of disability, it was 7% in both the West Bank and Gaza strip **(PCBS, 2011)**.

2.6 Depression

2.7 Theoretical definition of depression

Depression is known to be an extreme, persistent and recurrent condition that interferes significantly with the ability of the individual to function within his or her environment, and one's vulnerability to depression is determined by the interplay of multiple genes and the environment **(Solomon et al., 2000)**.

Depression is a set of feelings of sadness, loss of pleasure, helplessness, and hopelessness that persist over time, for at least 2 weeks. Depression can be associated with alcohol and other drug abuse and can lead to school failure as well as suicide attempts **(National Institutes of Health, 2009)**.

Depression has been defined generally as an affective condition, sometimes pathological, involving emotions of helplessness and hopelessness, which can sometimes be overpowering, and which is often accompanied by a general lowering of psychophysical activity **(Rampund & Moore, 2000)**.

In the field of psychiatry, depression is defined as a recurrent disorder, consisting of discrete episodes of abnormal low mood, associated with functional impairment. The core symptoms of depression include depressed mood and/or loss of interest (anhedonia).Vegetative symptoms include alteration in sleep (insomnia or hypersomnia), appetite (increase or decrease), and low energy. Cognitive symptoms include excessive guilt, hopelessness, helplessness, and suicidal ideation. Depression may also be

associated with impaired concentration or even frank cognitive impairment. Severe depression may be complicated by psychosis; that is, hallucination and /or delusion (typically persecutory delusions or delusional of guilt) **(Kaplan & Sadock, 2003)**.

According to the Diagnostic and Statistical Manual of Mental Disorders forth edition (DSM-IV), depression as a clinical term is a syndrome that describes a cluster of symptoms which are generally comprised of depressed mood, loss of interest, anxiety, sleep disturbance, loss of appetite, lack of energy and sometimes suicidal thoughts **(APA, 1994)**.

2.8 Theories of Depression

2.8.1 Biological Theory Neurotransmitter involvement:

Varcarolis (2002) indicates that there is much evidence to support the view that depression is a biologically heterogeneous disorder. This indicates that many neurotransmitters are implicated and the mechanisms of their interactions are not fully understood. Neurotransmitter dysregulation may result from environmental stressors, drug use, some medical conditions and/or an inherited vulnerability. **Keltner & Warren (2003)** describe three neurotransmitters that have attracted most medical research attention in relation to mood disorders, which are the catecholamines, serotonin, norepinephrine and dopamine. Also, acetylcholine and gamma-aminobutyric acid are likely to have modulating effects on those biogenic amines **(Elder et al., 2005)**.

According to **Varcarolis (2002**) it is known that stressful events overtax norepinephrine, serotonin and acetylcholine systems and lead to depletion of these neurotransmitters**.** Serotonin is an important regulator of sleep, appetite and libido, and decreased levels may account for lowered energy levels, concentration difficulties and the inability to feel pleasure**.**

Keltner & Warren (2003) conceptualize depression as a decreased level of serotonin and norepinephrine **(Elder et.al, 2005**).

Neuroendocrine influences:

Hormonal fluctuations are being studied in relation to depression. Mood disturbances have been documented in people with endocrine disorders such as those of the thyroid, adrenal, parathyroid, and pituitary. Elevated glucocorticoid activity is associated with the stress response, and evidence of increased cortisol secretion is apparent in about 40% of clients with depression with the highest rates found among older clients. Postpartum hormone alterations precipitate mood disorders, such as postpartum depression and psychosis. About 5% to 10% of people with depression have thyroid dysfunction, notably an elevated thyroid stimulating hormone. This problem must be corrected with thyroid treatment or treatment for the mood disorder will be affected adversely **(Videbeck, 2003)**.

2.8.2 Psychoanalytic theory of depression:

Depression may be intertwined with self-criticism. Sigmund Freud wrote that the "super-ego becomes over-severe, abuses the poor ego, humiliates it and ill-treats it, threatens it with the direst punishments". Freud argued that objective loss, as occurs through death or a romantic break-up, could result in subjective loss as well, when the depressed subject has identified with the object of its affection through an unconscious, narcissistic process called the libidinal cathexis of the ego. Such loss results in "a profoundly painful dejection, cessation of interest in the outside world, loss of the capacity to love, inhibition of all activity, and a lowering of self-regarding feelings" that is more severe than mourning. "In mourning it is the world that has become poor and empty; in [depression] it is the ego itself." **(Barlow, 1999)**.

2.8.3 Behavioral theory of depression:

Jacobson et al. (1960) considers that the predominant behavioral theory of depression postulates that major life stressors can result in a depressive episode because they disrupt normal behavior reinforcement patterns. Originating from an operant conditioning paradigm, this theory views depression as the consequence of a lack of or decrease in the efficiency of positively reinforced behavior and perhaps overt punishment for behavioral initiation. This may be a result of a decrease in the availability of reinforcing events, one’s personal skills to act on the environment, the impact of certain types of events, or a combination of these. In addition, the

mobilization of support from family and other social networks may result in a negative feedback loop of social reinforcement for depressive behaviors (e.g., social withdrawal, positive social reinforcement for withdrawal, further withdrawal). In other words, in times of major stress from unexpected events, people may experience a low rate of positive reinforcement for mood-enhancing behavior and a higher rate of positive reinforcement for depressive behavior **(Davidson et al., 2004)**.

2.8.4 Interpersonal theory of depression:

Miller (2001) stated that the interpersonal theory of depression is based on theories emanating from the interpersonal school of psychiatry and empirical data related to attachment theory and social roles. Interpersonal psychotherapy, developed by (**Klerman et al.**,**1984**) is a focused, short-term, time-limited therapy that emphasizes the current interpersonal relations of the depressed patient. A large body of research has documented the importance of interpersonal factors, including strained or critical personal relationships, in the onset of depressive symptoms and major depression in young and middle-aged adults. Vulnerability factors—such as early maternal loss, lack of a confiding relationship, responsibility for the care of several young children at home, and unemployment—can interact with life stressors to increase the risk of depression. For older adults, the factors are often health problems, changes in relationships with a spouse or adult children due to the transition to a care-giving or care-needing role, the death of a significant other, or a change in the availability or quality of

social relationships with older friends because of their own health-related life changes **(Miller et al., 2001)**.

2.8.5 Cognitive Theory:

Different cognitive behavioural theorists have developed their own unique twist on the cognitive way of thinking. According to Dr. Aaron Beck, negative thoughts, generated by dysfunctional beliefs are typically the primary cause of depressive symptoms. A direct relationship occurs between the amount and severity of someone's negative thoughts and the severity of their depressive symptoms. In other words, the more negative thoughts you experience, the more depressed you will become **(Beck et al., 2007).**

Beck also asserts that there are three main dysfunctional belief themes (or "schemas") that dominate depressed people's thinking: 1) I am defective or inadequate; 2) All of my experiences result in defeats or failures; and 3) The future is hopeless. Together, these three themes are described as the Negative Cognitive Triad. When these beliefs are present in someone's cognition, depression is very likely to occur (if it has not already occurred) (**Aaron beck et al., 2007).**

2.9 Epidemiology and prevalence of depressive disorder

Depression is one of the most common psychological conditions with a lifetime prevalence that has been estimated to be between 8% – 12% for men and as much as 20% – 25% for women in the adult population **(Kaplan et al., 1994).** General prevalence is between 9-20% **(Andrade et al., 2003).** WHO estimates that depression will become the second most important cause of disability worldwide (after ischemic heart disease), by 2020.

The prevalence of depression is higher among females than males with a ratio of approximately 2:1, and usually begins in a person's 20's or 30's (Morrison, 2002). Rates in men and women are highest in the 25 to 44 year old age group, whereas rates are lower for both men and women over the age of 65 **(Chengappa, 2003)**.

2.10 Types of depressive disorders

There are several different types of depression. Often they are distinguished by their prevalent features, duration and severity of symptoms. Most of these kinds of depression are defined by the Diagnostic and Statistical Manual of Mental Disorders **(DSM-IV 2000)**, an American Psychiatric Association publication which describes the standard criteria for different types of psychiatric disorders. The following three different kinds depression are distinct depressive disorders described in the DSM.

2.10.1 Reactive depression

Reactive depression is purely an understandable reaction to a significant loss and the symptoms are of anxiousness, sadness, tension, irritability, feeling worse in the evenings, and having trouble getting to sleep at night. Reactive depression is the usual initial response to loss and it is the same as grief. It is important to realize the symptoms and signs of endogenous depression **(McKeon, 2000).**

2.10.2 Major depression disorder

Also known as (Clinical Depression), the major depressive episode (MDE) is certainly the main feature of MDD in the DSM-IV (American Psychiatric Association, 2000). According to **APA (2000)** the depressive episode is characterized by depressed mood or loss of interest or pleasure in nearly all activities, for a period of two weeks or more, accompanied by four or more of the following:

- Insomnia or hypersomnia
- Sudden weight loss or weight gain associated with appetite increase or decrease
- Psychomotor agitation or psychomotor retardation
- Fatigue or loss of energy
- Feelings of worthlessness or excessive or inappropriate guilt
- Diminished ability to think or concentrate, or indecisiveness
- Suicidal ideation

It is a common disorder, with lifetime prevalence of 15% overall in men and women, but as high as 25% or higher in women **(Kaplan & Sadock, 1998)**.

2.10.3 Dysthymic disorder

Dysthmia is characterized by depressed mood most of the day over a long period of time, lasting for at least two years (one year in adolescents and children) **(American Psychiatric Association, 1994)**. At least two of the following symptoms must be present: poor appetite or over eating, insomnia or hypersomnia, low energy or fatigue, low self steam, poor concentration, difficulty of decision making and sense of hopelessness. During the two years the patient must never have been free of the symptoms for more than a one month period, and must not have had a major episode during the same time period **(Lemlin et al., 1997)**.

2.10.4 Manic depression

Now known as Bipolar Disorder, this kind of depression includes periods of mania and depression. Cycling between these two states can be rapid, or only mania can be present without any depressive episodes. A manic episode consists of a persistent elevated or irritable mood that is extreme, which lasts at least one week. At least three (four if only irritable mood) other features are also present:

- Inflated self-esteem or grandiosity
- Decreased need for sleep (e.g., feels rested after only 3 hours of sleep)
- More talkative than usual or pressures to keep talking
- Flight of ideas or subjective experience that thoughts are racing
- Distractibility (i.e., attention too easily drawn to unimportant or irrelevant external stimuli)
- Increase in goal-directed activity (at work, at school, or sexually) or psychomotor agitation
- Excessive involvement in pleasurable activities that have a high potential for painful consequences (e.g., engaging in unrestrained buying sprees, sexual indiscretions, or foolish business investments) **(DSM-IV, 1994)**.

2.11 Other types of depression disorders

2.11.1 Minor depressive disorder

Involves at least two but less than five symptoms that are identical with MD in duration, but involves less impairment. Depressed mood or loss of interest must be one of the symptoms. This disorder is relatively common in primary care and in outpatient mental health settings **(Banazak, 2000)**.

2.11.2 Recurrent brief depression

According to **ICD-10**, to make the diagnosis of RBD, depression should have occurred about once a month over the past year, and each episode should have lasted less than 2 weeks (typically 2–3 days with complete recovery), not having occurred only in relation to menstrual cycle and

otherwise fulfilling the symptom criteria for a mild, moderate or severe depressive episode. The risk for manic episode is low and thus it may not fall into the rapid-cycling form of bipolar disorder **(Angst, 1994)**.

2.11.3 Psychotic (Delusional) depression

This subtype of depression is listed as a severe episode with psychotic symptoms in ICD-10, and major depression with psychotic features (mood-congruent and mood-incongruent) in DSM-IV. It is also commonly cited in the literature as psychotic or delusional depression **(Johnson et al., 1991)**.

2.11.4 Melancholic depression

Melancholia is the oldest diagnostic term used in psychiatry and is characterized by vegetative disturbance and other clinical features that indicate a profound dysfunction of neurobiological mechanisms **(Kaplan & Sadock, 1998)**. The main features of its clinical identity include severe anhedonia (lack of reactivity to pleasurable stimuli), loss of appetite, insomnia, diurnal variation (with depression at its worst in the morning), psychomotor disturbances and decreased responsiveness to the environment **(Schotte et al., 1997)**.

2.11.5 Postpartum depression

Postpartum depression is diagnosed if a new mother develops a major depressive episode within one month after delivery. It is estimated that 10

to 15 percent of women experience postpartum depression after giving birth **(Altshuler et al., 1998)**.

2.11.6 Atypical depression

A sub-type of Major Depressive or Dysthymia, the specifying criteria for atypical depression, according to **DSM-IV**, are basically the reverse vegetative-somatic symptoms most commonly encountered in typical melancholia (i.e. hypersomnia instead of insomnia, hyperphagia and weight gain instead of anorexia and weight loss), while the mood is responsive to actual or potential positive events. Excessive sensitivity to rejection is also listed as a criterion. The symptoms have to predominate in the 2 weeks following an episode of major depression or during the past 2 years of dysthymia.

2.11.7 Seasonal affective disorder (SAD)

This is characterized by the onset of a depressive illness during the winter months, when there is less natural sunlight. The depression generally lifts during spring and summer. SAD may be effectively treated with light therapy, but nearly half of those with SAD do not respond to light therapy alone. Antidepressant medication and psychotherapy can reduce SAD symptoms, either alone or in combination with light therapy **(Rohan et al., 2004)**.

2.11.8 Catatonic depression

A sub-type of Major Depressive, catatonic depression is characterized by at least two of the following, according to **DSM-VI:**

- Loss of voluntary movement and inability to react to one's environment.
- Excessive movement (purposeless and not in response to one's environment)
- Extreme resistance to instructions/suggestions or unable/unwilling to speak
- Odd or inappropriate voluntary movements or postures.
- Involuntary repeating someone's words or movements in a meaningless way.

2.12 Symptoms of depression

According to **Maj and Srtorius (2002),** depression symptoms classify as the following:

2.12.1 Depressed mood

Depressed mood is the hallmark of all depressions, regardless of their additional specifying features and of their intensity, duration and variation. It is a sustained emotional state that is characterized by sadness, low morale, misery, discouragement, hopelessness, emptiness, unhappiness, distress, pessimism and other related affects that, if assessed in isolation,

cannot easily be delineated from the emotional states universally experienced by all human beings when faced with life's adversities.

The main differentiating features of the depressed mood from the non-morbid emotional reaction of sadness are as follows. The intensity and the depth of the pain become so unbearable that often the death wish provides comforting remedy. The sadness and the associated feelings pervade all domains of personal life and impact the individual’s social performance. The depressed mood lasts long enough to be felt as an unalterable affective state. It may occur spontaneously, but, even if it has been triggered by a life event, it evolves autonomously, dissociated from that event, and resists being changed through reasoning or encouragement. It is associated with cognitive and somatic symptoms (guilt, self-reproach, suicidal thoughts and a variety of unpleasant and painful bodily sensations) that are not commonly encountered in non-depressed mood states **(Maj and Srtorius, 2002)**.

2.12.2 Anhedonia - loss of interest

Anhedonia and loss of interest are symptoms closely associated with the depressed, varying in intensity along with the feeling of sadness. Patients are unable to express emotions, even their own psychic pain. They are unable to draw pleasure from previously enjoyable activities or to preserve their interests and affections. In severe cases they disregard and abandon most of the things they valued in the life **(Maj and Srtorius., 2002)**.

2.12.3 Cognitive disturbance

Difficulty in concentrating, negative thoughts, low self-esteem and self-confidence, hopelessness, self-depreciation and self-reproach, a sense of worthlessness and sinfulness, negative outlook on the world and suicidal thoughts are some of the most common cognitive features accompanying the depressed person's state of feeling. If these thoughts are many, persistent and not amenable to change by reason, they are regarded as delusions and qualify for the diagnosis of mood-congruent (delusional-psychotic) depression. When thoughts are discordant with the depressed mood, and delusions of persecution, thought insertion, thought broadcasting and other similar delusions predominate, then mood-incongruent (delusional- psychotic) depression is diagnosed. Whether these cognitive disturbances result in depressed mood, as the cognitive theorists view it, or they are the derivatives of the depressed mood state is still a debatable issue of limited interest to the practicing physician **(Maj and Srtorius., 2002)**.

2.12.4 Psychomotor disturbance

Psychomotor disturbances have the advantage of being readily observed and even objectively measured. They include, on the one hand, agitation (hyperactivity) and on the other, retardation (hypo activity). Although agitation, usually accompany by anxiety, irritability and restlessness, is a common symptom of depression, in contrast, retardation, manifested as slowing of bodily movement, mask-like facial expression, lengthening of

reaction time to stimuli, increased speech paucity and at its extreme as an inability to move or to be mentally and emotionally activated (stupor), is considered a core symptom of depression. Their presence is currently being used as a diagnostic symptom of melancholic type of depression in DSM IV and the severe depression with somatic symptoms in International Classification of Disease (ICD-10) **(Maj and Srtorius., 2002)**.

2.12.5 Vegetative symptoms

Vegetative symptoms constitute the most biologically rooted clinical feature of depressive disorders and are commonly used as reliable indicators of severity (severe depression with somatic symptoms in ICD-10 and melancholia in DSM-IV). It manifests as profound disturbances in eating (anorexia and weight loss, or the reverse, bulimia and weight gain), in sleep (insomnia or hypersomnia), in sexual function (decreased sexual desire or in minority of cases the reverse, loss of vitality, motivation, energy and capacity to respond positively to pleasant events). Additionally, concomitant bodily sensation usually diffuse pain, and complaints of fatigue and physical discomfort are reported **(Maj and Srtorius., 2002)**.

2.13 Definition of extended family

The term extended family defines a family that extends beyond the immediate family, consisting of grandparents, aunts, uncles, and cousins all living nearby or in the same household. **(International Encyclopedia of the Social Sciences, 2008)**.

2.14 Definition of nuclear family

The nuclear family, or elementary family is a term used to define a family group consisting of a pair of adults and their children **(Encyclopædia Britannica, 2011)**.

Chapter Three

Literature

Review

3.1 Literature review

Research has revealed that psychiatric morbidity (depression, anxiety, experiencing high levels of stress) are common among mothers of mentally disabled children. Studies from different countries on parents of children with disabilities suggested that up to 50% of mothers of children with disabilities have symptoms of depression **(Emerson, 2003)**.

Literature reports that mental disability cause psychological, physical, social, and financial distress to the whole family, particularly mothers, as they are virtually the only constant care-givers for their child **(Schwartz & Tsumi)**. Mothers of those children showed more psychological distress than other member in their families, because they are the primary caregivers for their children **(Weiss et al ; Pelchat et al.,2003)**.

maternal mental situations affect the quality of life in mothers. Quality of life is an overall sense of well-being with a strong relation to a person's health perceptions and ability to function. On a larger scale, quality of life can be viewed as including all aspects of community life that have a direct and quantifiable effect on the physical and mental health of its members **(Gerberding, 2002)**.

Depression and Stress in parents of disabled children are of the most important problems that they face, and numerous studies indicate that basically having a difficult child brings about depression in the parents, and this depression is more in mothers than fathers **(Tan et al., 2005)**.

A parent shows a series of reactions after knowing that their child is disabled. These include shock, denial, guilt, sorrow, rejection and acceptance. Questions like: 'Why me?' or 'How can it be?' keep arising without answers. Some of them undergo tremendous guilt feelings, experience deep sorrow, have strong under expectations of achievement, may have unrealistic goals, may want to escape form reactions and ultimately turn to accept the child **(Berdine & Blackhurst, 1985)**.

The mothers of mentally disabled children show significantly more psychiatric morbidity and stress than mothers of normal children, but fathers did not show the same deleterious effect on psychological health, which may be related to the differing responsibility assigned to child-rearing for each parent, as the literature shows that fathers are less involved in care giving activities **(Romaans-Clarkson et al., 1986); (Moes et al., 1992); (Cuskelly et al., 1998); (Hastings, 2003)**.

Kuhsali et al. (2007) compared social adaptation of mothers having mentally retarded children and mothers of normal children. She indicated that mothers of mentally retarded children had a limited social adaptation. Parents of mentally retarded children may have limited leisure time and social interaction **(Shariati et al., 2005)**.

The mothers of children with impairments of speech met criteria for depression better as compared to mothers of healthy children **(Rudolph et al., 2003)**. Parents of autistic children have described stressful conditions in

their families **(Bolton et al., 1998); (Holroyd et al., 1975); (Sanders & Morgan, 1997)**.

Studies show that the parents of an autistic child experience Over-anxiety due to social relatedness, delay or absence of speech development, stereotypic movements, hyperactivity, and lack of eye contact **(Bebko et al., 1987); (Ohta et al., 1987); (Dor-Shav & Horowitz, 1984)**.

The mothers of autistic children were reported to be more introverted and neurotic than the normal control group **(Hodapp et al., 1997)** and the parents of children with autism and Down's syndrome were reported to be overanxious, oversensitive, stern in manner, and sensitive to be frustrated with criticism **(Piven et al., 1991)**. Studies of parents with children with disabilities suggested that 35-53% of mothers of children with disabilities passed cut-off scores for depression **(Veisson, 1999)**.

The parents of autistic children were also found to have more limited friendships than those of children with Down's syndrome **(Piven et al., 1991)**. It was reported that the mothers of autistic children were more prone to be distressed than those of children with Down's syndrome **(Veisson, 1999); (Holroyd & McArthur, 1976)**.

Mothers having children with CP (cerebral palsy) had depressive symptoms and a lower quality of life. In addition to that, **Manuel et al. (2003)** reported 30% of mothers having CP children had the symptoms of depression above the cutoff of the Center for Epidemiologic Studies-

Depression (CES-D) Scale Short Form. In a study of the relationship between child's disability and mother's mental health, **Lambernus et al. (1996)** found that the prevalence of depression in three groups of mothers having: a) premature infants with the risk for developing CP, b) premature infants without risk of CP and, c) normal infants, was the same at the first year of the children's lives.

Anxiety and depression were significantly higher among the mothers of psychotic children **(Ryde- Brandt, 1990)**. It was demonstrated that the mothers of children with cerebral palsy experienced higher levels of stress than mothers of healthy children **(Manuelet al., 2003); (Ong et al., 1998)**. Numerous studies support the theory that the parents of children that suffer from general developmental disability show higher degrees of stress **(Sanders & Morgan, 1997)**.

Comparative studies done among parents with children with intellectual disabilities showed that mothers became more stressed than fathers **(Richard et al., 2005)**. Perhaps this is because mothers may get a lot more involved with their children than fathers, and this is why stress signs are seen more among mothers than fathers of disabled children **(Hastings., 2003)**.

Perhaps one of the most important reasons for these stresses and depression could be that these children are more at risk of being subjected to abuse than healthy children, and a study on children with schizophrenia, autism, affective disorder, anxiety disorder, and conduct disorder, revealed that

they were seven times more at risk of being abused or neglected than healthy children **(Council for Children with Behavioral Disorders, 2000)**.

There are high levels of damage on the mothers, such as stress, anxiety and depression, according to previous studies based on the beck depression scale. In one study, for mothers with an autistic child depression was at 11.8%, for mothers of mentally handicapped children depression was at 9.2%, and in mothers of the control group depression was at 5% **(Olsson & Hwang, 2001)**.

Children with different disabilities cause different levels of stress in their mothers. Mothers of children with epilepsy show increased levels of expressed emotion towards their children. Maternal over- involvement being significantly positively correlated with maternal stress suggests that concern and worry about children with epilepsy is an extra burden for mothers **(Hodes et al., 1999)**. Also, mental retardation in the epileptic child had the significant impact on the mothers' depression symptoms **(Mu PF et al., 2005)**. **Fishman et al. (1989),** in their study, examined the role of parenting stress and parental depression and marital intimacy among parents of disabled children and developmentally normal children. Results showed that mothers and fathers of autistic children significantly showed greater stress and depression as well as marital intimacy than mothers and fathers of children with Down Syndrome.**Heller et al. (1997)**

found that in comparison with fathers of intellectually disabled children, mothers spent more time providing care, offered more types of support and perceived more care giving burden. The behavior and health of the children had a greater impact on mothers than on fathers.

Peshawaria et al. (1998) stated that there were gender differences in facilitating and inhibiting factors that affect coping in parents of children with intellectual disability in India. Mothers are under more pressure to balance childcare needs and household chores. Physical support was a relief to them. **Seshadri et al. (2000)** reported a direct relationship between the degree of perceived burden, social emotional burden, disruption of family routine and disturbance in family interactions for women with intellectually disabled children rather than men.

Hedov et al. (2000) studied self-perceived health in Swedish parents of children with Down's Syndrome (DS). They found mothers of children with DS had significantly lower, less favorable scores on self-perceived health than did the fathers of DS children and the control group.

There are some that believe that the thing that causes depression in parents the most is not disability, but it is these children's behavioral problems that cause depression **(Kogel et al., 1992)**.

Chapter Four
Methodology

4.1Introduction

This chapter presents an overview of the research methodology used for this study. It includes: study design, study sample (study population, sample size, sampling process), setting, ethical consideration, study instruments, data collection and data analysis procedures.

4.2 Study design

The study is descriptive, analytic kind (cross-sectional).

4.3 Study population

The target population of this study is all mothers who have a child with disability and met the inclusion criteria, in addition to mothers of normally developed children as a control group.

4.4 Sample size and sampling

Participants were 200 mothers of children divided in two groups: 100 study group participants (mothers of children with different types of disabilities), and 100 mothers of normally developed children as a control group. This study draws on the population available to the researchers**.** The study sample was taken on a convenient sampling basis and the control sample was taken in simple random sampling. The sample size was determined based on similar studies.

4.5 Setting of the study

The study was carried out in two rehabilitation centers in the Nablus district. These two rehabilitation centers serve disabled children in the north of the West Bank, and the control group was selected from local schools in the Nablus district.

4.6 Period of the study

The study was carried out between the period between the 10th of April, 2012 and the 5th of May, 2013.

4.7 Inclusion criteria

All mothers who have a diagnosed child with disability and met the following criteria:

- Mothers having a child with disability and living with him or her.
- Absence of severe and chronic medical conditions
- Absence of a history of psychological disorder in the mothers.
- Age of mothers 18-50 years.
- Mothers whose children age 2-16 years had been diagnosed with disability for at least 6 months.
- All subjects should speak and write in Arabic language.

Inclusion criteria for the control group were as follows:

- Having a healthy child and living with him or her.
- Absence of severe and chronic medical conditions.
- Absence of patient or a disabled person living with him or her.
- Absence of a history of psychological disorder in the mothers.
- Age of mothers 18-50 years.
- Aged of healthy children 2-16 years.
- All subjects should speak and write in Arabic language.

4.8 Instruments of the study

4.8.1 Socio-demographic questionnaires

The demographic information included age (mother & child), kind of disability, gender, education level, employment, area of residence, income and marital status.

4.8.2 Beck Depression Inventory (BDI)

The Beck Depression Inventory (BDI, BDI-1A, BDI-II), created by Dr. Aaron T. Beck, is a 21-question multiple-choice self-report inventory, one of the most widely used instruments for measuring the severity of depression **(Beck, 1972)**. Its development marked a shift among health care professionals, who had until then viewed depression from a psychodynamic perspective.

In its current version the questionnaire is designed for individuals aged 13 and over, and is composed of items relating to symptoms of depression such as hopelessness and irritability, cognitions such as guilt or feelings of being punished, as well as physical symptoms such as fatigue, weight loss, and lack of interest in sex **(Beck, 1972)**.

There are three versions of the BDI—the original BDI, first published in 1961 and later revised in 1978 as the BDI-1A, and the BDI-II, published in 1996. The BDI is widely used as an assessment tool by health care professionals and researchers in a variety of settings.

The BDI was used as a model for the development of the Children's Depression Inventory (CDI), first published in 1979 by clinical psychologist Maria Kovacs **(Kovacs, 1992).**

The original form of (BDI-II) contains 21 items and aims to assess quantitatively the severity of depression, and was used in this study in the Arabic version. It also has a great benefit in clarification of the cognitive aspects of depression.

Each of its items describes a specific behavioral manifestation of depression. It is a universal scale, and its validity and reliability Arabic version scale are already tested by Dr. Abd Elaziz Thabt. This scale was translated in the Gaza strip by Dr. Abd Elaziz Thabt’s assistant professor in psychiatry in Al-Quds University in Gaza and this scale was used in many studies.

The severity of depression is classified on the basis of the total score as the following: In subjects without chronic illness, a BDI score <15 suggests no or minimal depression, 16 to 24 represents mild to moderate depressive affects, 25 to 33 is moderate to severe, and >33 indicates severe levels of depression **(Garib, 2000)**.

4.9 Validity & Reliability

Reliability means that scores from an instrument are stable and consistent. Scores should be nearly the same when researchers administer the instrument multiple times at different times. When an individual answers certain questions one way, the individual should consistently answer closely related questions in the same way **(Creswell, 2008)**. Reliability of an instrument is the degree of consistency with which it measures the attribute it is supposed to be measuring.

For most purposes, reliability coefficients above 0.7 are considered satisfactory. Cronbach's coefficient alpha is used to measure the reliability of the questionnaire between each field and the mean of the whole fields of the questionnaire. The normal range of Cronbach's coefficient alpha value is between 0.0 and + 1.0, and the higher values reflect a higher degree of internal consistency.

Reliability was established using a pilot test by collecting data from 15 subjects in each group not included in the sample. Data collected from the pilot test was analyzed using SPSS (Statistical Package for Social

Sciences). Cronbach's coefficient alpha was calculated and the general reliability for all items equaled 0.78, which is considered satisfactory.

BDI II-Arabic version was used in this study.

Content validity was examined by sending the questionnaire to 9 experts(3mental health nurse, 2 psychiatrist physician, 2 researchers, one clinical psychiatrist, one statistician) working in the same field to evaluate and identify whether the questions agreed with the scope of the items and the extent to which these items reflect the concept of the research problem and to evaluate that the instrument used is valid statistically and that the questionnaire was designed well enough to provide relations and tests between variables.

The experts report that the questionnaire was valid and suitable enough to measure the concept of interest, so the committee opinion was no changes were needs.

4.10 Ethical consideration

Ethical approval was obtained from the Institutional Review Board (IRB) of An-Najah National University. The procedures and purpose of the study was described in detail to the mothers and informed consent was obtained. The mothers were solicited for participation through special education and rehabilitation centres, participation was voluntary and data were handled confidentially and used only for research purposes. Participants' anonymity was assured by the use of unique identifiers allocated to each participant.

Participants were informed of their right to refuse participation and their right to withdraw or discontinue participation at any time without penalty.

Permission to perform the study was obtained from the special education and rehabilitation center where the study was conducted (Care for Children with Special Needs Society and Farah Center in Nablus – north of the West Bank –Palestine).

4.11 Data collection

The data was collected directly from the mothers when they came to the center with their children for rehabilitation sessions. The data was collected by the researcher with assistants of specialists in speech and hearing pathology and social workers by using standardized questionnaires. The data collected in two centers (Care for Children with Special Needs Society and Farah Center). Detailed information about the study was given to each participant using their own Arabic language and consent to participate was obtained; filling out the questionnaires by the mothers took about 10-15 minutes.

For the control group the questionnaire was distributed in two school nurseries (35 children were chosen), two primary schools (54 child were chosen) and one secondary school (11 child was taken), the school located in the Nablus district, the questionnaire was distributed in these schools by the researcher and sent to the mother by their children. The children were selected by using simple random sampling, from selected classes we chose

the children as they are ordered in the class, we take child number 1,4,7,10 etc…

4.12 Data entry

Overview of the questionnaire was the first step, prior to data entry; this followed by designing an entry model using the computer Statistical Package for Social Science "SPSS" version 20 **(IBM Corp, 2011).** The coded questionnaires were entered into the computer by the researcher. Data cleaning was done through checking out a random number of the questionnaires and through exploring descriptive statistics frequencies and percentage for all variables. All suspected or missed values were checked by revising the available sheets and the variable that missed in many questionnaires were excluded from analysis

4.13 Data analysis

The researcher used the Statistical Package for Social Science "SPSS" Version (20) to analyze the research questions by using Chi square, Mann Whitney U test and Kruskal-Wallis H analysis. Also, the researcher used descriptive statistics to explore frequencies of all variables. Statistically significant values were considered at P values of equal to or less than 0.05. The Mann-Whitney U test is used to compare differences between two independent groups when the dependent variable is either ordinal or continuous, but not normally distributed **(Corderet al, 2009).**

4.14 Procedure

Ethical approval was obtained from the Institutional Review Board (IRB)

of An-Najah National University, and the permission was obtained from the head of rehabilitation centers and school to Conduct the study in rehabilitation centers and school. Detailed information about the study was given to each participant using their own Arabic language and consent to participate was obtained, the mothers who agreed to participate in the study have read the participant`s letter, and give written informed consent.

The BDI II Arabic version and Socio-demographic questionnaires were distributed by the researcher and filled by the mothers who want to participate in the study. For the study group the questionnaires were distributed in the two rehabilitation center (Care for Children with Special Needs Society and Farah Center), the data was collected directly from the mothers when they came to the center with their children for rehabilitation sessions, filling out the questionnaires took about 10-15 minutes.

For the control group the questionnaires were distributed in two kinder garden (35 children were chosen), two primary schools (54 child were chosen) and one secondary school (11 child was taken), the school located in the Nablus district, the questionnaires were distributed in these schools by the researcher and sent to the mother by their children. The children were selected by using simple random sampling.

The coded questionnaires were entered into the computer by the researcher; the researcher used the Statistical Package for Social Science "SPSS" Version (20) to analyze the research questions by using Chi square, Mann Whitney U test and Kruskal-Wallis H analysis. Also, the researcher used descriptive statistics to explore frequencies of all variables, statistical analysis was conducted for two groups and the results were compared with each other, and the conclusion was made.

Chapter Five

Results

5.1 Study Findings

One- hundred subjects in the study group and one-hundred in the control group were studied. The mothers' average ages in the study group and control group were 32.6 (SD=6.3) and 31(SD= 5.7) years, respectively. About (99%) of study group and (98%) of the control group were married, 14% of the study group and 15% of the control group were employed, (79%) of the study group and (76%) of the control group had an enough level of income, respectively (table1).

Eighteen percent of mothers in the study group reached primary school, 50% attended secondary school, 8% obtained a high school diploma, and 24% attended university. In the control group, 15% reached primary school, 40% attended secondary school, 11% obtained a high school diploma, and 34% attended university. Forty five percent of mothers in the study group live in cities, 46% live in villages and 9% live in refugee camps. For the control group, 42% live in cities, 43% live in villages and 15% live in refugee camps (table1).

For the study group, 82% of mothers live with their nuclear family as do 79% of the control group mothers (table1).

The characteristics of the mothers are presented in Table 1.

Table1: Characteristics of the sample

	Study group		**control group**	
Mothers age	**No.**	**%**	**No.**	**%**
<30	44	44%	41	41%
30-40	48	48%	47	47%
>40	8	8%	12	12%
Marital status				
Married	98	98%	99	99%
Divorced	2	2%	1	1%
widowed	0	0	0	0
Education				
Elementary	15	15%	18	18%
Secondary	40	40%	50	50%
Diploma	11	11%	8	8%
University	34	34%	24	24%
Income				
Low	24	24%	21	21%
Middle	72	72%	76	76%
High	4	4%	3	3%
Employments				
Yes	15	15%	14	14%
No	85	85%	86	86%
Retire	0	0	0	0
Residence				
City	42	42%	45	45%
Village	43	43%	46	46%
Camp	15	15%	9	9%
Family style				
Nuclear	82	82%	79	79%
Extended	18	18%	21	21%
Total	100		100	

The average ages of children in the study group and control group were 5.7(SD ±5) and 6 (SD±3) years old, respectively. 62% of the study group was boys and 38% of them were girls, and 53% of the children of the control group were boys and 47% were girls (table2). The study group children had 8 different diagnoses group with 18% autism, 18% hearing disorder, 14% mental retardation, 12% cerebral palsy, 11% speech disorder, 10% down syndrome, 7% physical disability and 10% others disabilities (table13).

The characteristics of the children are presented in Table 2.

Table 2: Characteristics of the children

	Study group		**Control group**	
Child age	**No.**	**%**	**No.**	**%**
<5	40	40%	35	35%
5-10	50	50%	54	54%
>10	10	10%	11	11%
Total	100	100%	100	100%
Child sex				
Male	62	62%	53	53%
Female	38	38%	47	47%
Total	100	100%	100	100%

Forty six percent (46/100) of mothers in the study group and 85% (85/100) in the control group did not have depression or they have a minimal depression, There was a statistical significant difference in the two groups, the Chi-square statistic is 33.6542. The P value is 0.00. This result is significant at $p < 0.05$. Thirty six percent (36/100) of the mothers in the study group have a statistical significant difference of mild to moderate

level of depression compared to 13% (13/100) of mothers in the control group. The Chi-square statistic is 14.2992. The P value is 0.00. This result is significant at $p < 0.05$.

whereas 17% (17/100) of mothers in the study group have a statistical significant difference of moderate to severe level of depression compared to (2%) in the control group. The Chi-square statistic is 13.0852. The P value is 0.00. This result is significant at $p < 0.05$.(Table 3)

Table 3: Depression levels of mothers

	Study group		Control group	
Depression level	No.	%	No.	%
Normal or minimal depression	46	46*	85	85*
Mild to moderate	36	36*	13	13*
Moderate to severe	17	17*	2	2*
Sever level of depression	1	1	0	0
Total	100		100	

**P* < 0.05 when study group is compared to control group.

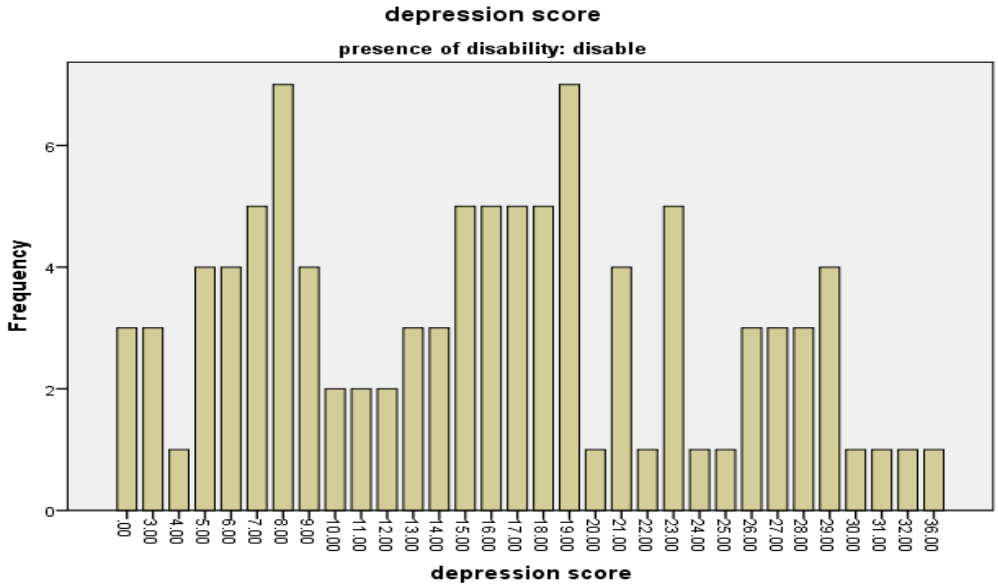

Figure 1. shows the relationship between total depression score in relation to the frequency of the participant in the study group

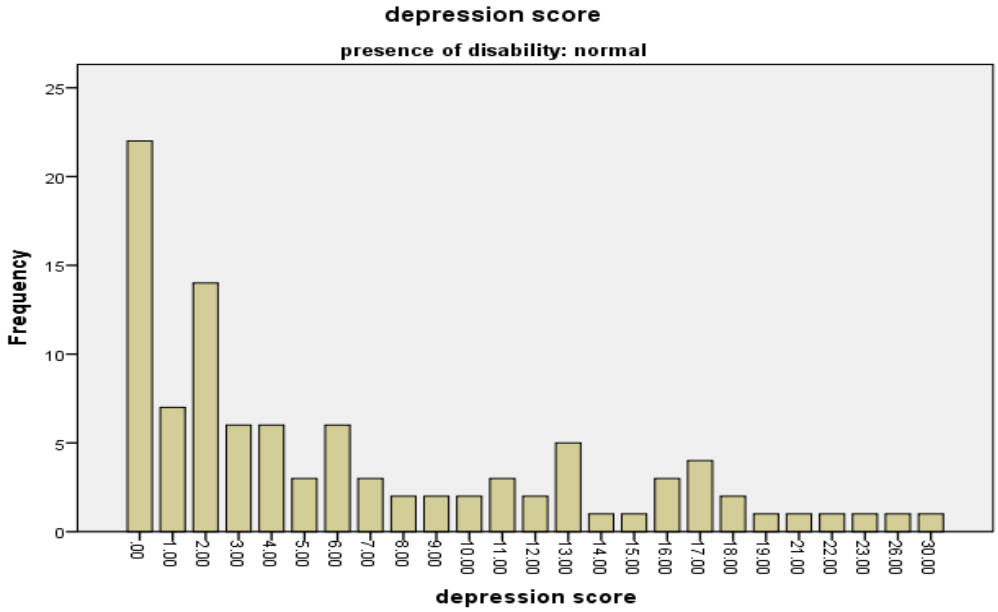

Figure 2.shows the relationship between total depression score in relation to the frequency of the participant in the control group

Table 4 shows that there is a significant difference between mothers' depression score with respect to having or not having disabled children; the mean rank for the study group was (120.82) and the mean rank for the control group was (80.18). The P-value was (0.00), $p<0.05$).

According to rank means and the p-value, the depression score of mothers of disabled children was significantly higher compared to mothers with normal children.

Table 4: Mann Whitney test result on the depression levels of mothers with disabled children compared to mothers with normal children.

Presence of disability	N	Mean Rank	Sum of Ranks	U	P value
normal	100	80.18	8018.00	2968.000	0.00
disabled	100	120.82	12082.00		
Total	200				

* The mean difference is significant at the 0.05 level.

Part 1 of the statistical analysis:

The following results are based on the statistical analysis differences in each group by itself (differences in the same group)

As shown in Table 5, in the control group, mothers did not have significant different means rank about the relation between mother depression level and their children's sex. The mean rank was 50.68 when the child's sex was male, and 50.30 when the child's sex was female, with (U=1236, P=0.916).Thus, there was no significant differences found.

In the study group, also mothers did not have significant different means rank about the relation between mother depression level and their children's sex. The mean rank was 53.24 when the child's sex was male, and 46.03 when the child's sex was female, with (U=1008, P=0.191). Thus, there was no significant differences found.

Table 5:Mann Whitney U test result on the depression level of mothers of both groups with respect to the child's sex.

Presence of disability	Child sex	N	Mean Rank	Sum of Ranks	U	P value
Control group	male female Total	53 47 100	50.68 50.30	2686.00 2364.00	1236.000	.916
Study group	male female Total	62 38 100	53.24 46.03	3301.00 1749.00	1008.000	0.191

* The mean difference is significant at the 0.05 level.

Table 6 shows the relation between the depression score and the children's age. In the control group, mothers did not have significant different means rank of depression scores when children's age was considered, so the children's age did not statistically influence their depression scores ($p>0.05$, $p= 0.458$).

In the study group, also mothers did not have significant different means rank of depression scores when children's age was considered, so the children's age did not statistically influence their depression scores ($p>0.05$, $p= 0.217$).

Table 6: Kruskal-Wallis H analysis results of the depression scores of mothers of both groups (study and control) with respect to the child's age.

Presence of disability	Child age	N	Mean Rank	P value
Control group	5<	35	48.60	0.458
	10-5	54	50.54	
	10>	11	56.36	
	Total	100		
Study group	5<	40	45.63	0.217
	10-5	50	55.17	
	>10	10	46.65	
	Total	100		

* The mean difference is significant at the 0.05 level.

As shown in Table 7, in the control group, the mean rank suggests that mother's age above 40 years is linked with a higher depression score compared to other ages, their mean rank was 68.44 while it was 47.63 when the mother's age was less than 30 years and 50.15 when the mother's age was between 30-40 years. The differences were statistically significant and the mothers' depression significantly increased with their age (p=0.010).

In the study group the highest level of depression was when the mother's age was above 40 years. When the mother's age was less than 30 years, the mean rank was 49.66, when the mother's age was between 30-40 years it was 47.46, and when the mother's age was above 40 years the mean rank

was 65.29. However, the differences were statistically not significant (p=0.116).

Table 7: Kruskal-Wallis H analysis results of the depression scores of mothers of both groups (study and control) with respect to the mother's age.

	Mothers age	N	Mean Rank	P value
Control group	30>	44	47.63	0.010
	40-30	48	50.15	
	40<	8	68.44	
	Total	100		
Study group	30>	41	49.66	0.116
	40-30	47	47.46	
	40<	12	65.29	
	Total	100		

* The mean difference is significant at the 0.05 level.

Table 8 shows that in the control group, mothers did not have significant different levels of depression scores when their educational level was considered, which means that the depression score of mothers from different groups did not statistically differ (P=0.158).

in the study group, also mothers did not have significant different levels of depression scores when their educational level was considered, which means that the depression score of mothers from different groups did not statistically differ (P=0.636).

Table 8: Kruskal-Wallis H analysis results of the depression scores of mothers of both groups (study and control) with respect to their educational level.

	Educational level	N	Mean Rank	P value
Control group	elementary	15	59.83	0.158
	secondary	40	47.90	
	diploma	11	47.45	
	university	34	50.43	
	Total	100		
Study group	elementary	18	49.08	0.636
	secondary	50	53.82	
	diploma	8	47.31	
	university	24	45.71	
	Total	100		

* The mean difference is significant at the 0.05 level.

As shown in Table 9, in the control group the mean rank suggests that mothers with low-income had higher depression scores compared to high or middle income; however, the differences were not statistically significant (p=0.071).The mean rank for low-income was 57.6, for middle and high income it was 48.55 and 43.00 respectively.

For the study group, economic status for mothers of disabled children also did not affect their depression scores; the mean rank for mothers with low-income was 56.88, for middle and high-income it was 48.72 and 50.83 respectively, and the p-value was not significant (p= 0.466).

Table9: Kruskal-Wallis H analysis results of the depression scores of mothers of both groups (study and control) with respect to their income level.

	Income	N	Mean Rank	P value
Control group	low-income	24	57.60	0.071
	middle-income	72	48.55	
	high-income	4	43.00	
	Total	100		
Study group	low-income	21	56.88	0.466
	middle-income	76	48.72	
	high-income	3	50.83	
	Total	100		

* The mean difference is significant at the 0.05 level.

As shown in Table 10, the mean rank for the control group was 53.8 for employed and 49.92 for unemployed, the mean suggests that employed mothers had a higher depression score than unemployed mothers.

In contrast, employed mothers of the study group had lower depression scores than unemployed mothers, the mean rank for employed was 45.37 and 51.41 for unemployed mothers.

For both groups it was not statistically significant (p=0.440, p=0.420) respectively.

Table10: Mann Whitney U test results of the depression scores of mothers of both groups with respect to their employments.

	Employments	N	Mean Rank	P value
Control group	employed	16	53.80	0.440
	unemployed	84	49.92	
Study group	employed	15	45.37	0.420
	unemployed	85	51.41	

* The mean difference is significant at the 0.05 level.

As shown in the Table 11, the mean rank suggests that mothers with disabled children who live in villages had a higher depression score than mothers with disabled children who live in cities or camps, the mean rank was 46.17 for mothers live in city, 54.99 for mothers live in village and 49.22 for mothers live in camps, but differences were not statistically significant (p=0.287). For mothers with normal children, there was no influence of residence on depression score (p=0.665), the mean rank was 51.52 for mothers live in city, 48.70 for mothers live in village and 52.80 for mothers live in camp.

Table11: Kruskal-Wallis H analysis results of the depression scores of mothers of both groups with respect to residence.

	Residence	N	Mean Rank	P value
Control group	city	42	51.52	0.665
	village	43	48.70	
	camp	15	52.80	
	total	100		
Study group	city	45	46.17	0.287
	village	46	54.99	
	camp	9	49.22	
	total	100		

* The mean difference is significant at the 0.05 level.

As shown in the Table 12, in the control group, there were not statistically significant differences (p=0.448) if mothers live within the nuclear or extended family. Also in the control group, there were not statistically significant differences (p=0.689) if mothers live within nuclear or extended family

Table 12: Chi square test for the relation between depression score and family style

Group	Family style	N	P value
Control group	Nuclear family	(82%)82	0.448
	Extended family	(18%)18	
	Total	100 (100%)	
Study group	Nuclear family	79(79%)	0.689
	Extended family	21%)21(	
	Total	100(100%)	

* The mean difference is significant at the 0.05 level.

As shown in Table 13, the mothers of children with physical disabilities (mean rank was 60.36) and cerebral palsy (mean rank was 58.67) have a higher depression score than mothers with children of other kinds of disabilities, and the lowest level of depression score was for mothers whose children have down syndrome, which had a mean rank of 38.45.

Table 13: Depression score for study group with respect to kind of disability

Kind of disability	N	Mean Rank
Down syndrome	10	38.45
Hearing disability	18	50.39
Physical disability	7	60.36
Speech disorder with other disability	11	54.41
Autism	18	44.67
Mental retardation	14	49.68
Cerebral palsy	12	58.67
Other disorder	10	53.40
Total	100	

Part 1I of the statistical analysis

The following results are based on the statistical analysis differences between the study group and control group (differences between the groups)

Table (14) shows that according to mothers whose children's age(<5), there is a significant difference between mothers' depression score with respect to having or not having disabled children; The difference was in favor of mothers who are having disabled children with mean rank (44.51) which is

higher than that for mothers who are not having disabled children with mean rank (30.56). The P-value was (0.001) <0.05).The conclusion according to means rank and the p-value is that the depression score of mothers of disabled children was significantly higher compared to mothers with normal children.

Table (14) shows that according to mothers whose children's age (5-10), there is a significant difference between mothers' depression score with respect to having or not having disabled children; The difference was in favor of mothers who are having disabled children with mean rank (65.16) which is higher than that for mothers who are not having disabled children with mean rank (40.78). The P-value was less than 0.05. The conclusion according to means rank and the p-value is that the depression score of mothers of disabled children was significantly higher compared to mothers with normal children.

Finally, table (14) shows that according to mothers whose children's age (>10), there is no significant difference between mothers' depression score with respect to having or not having disabled children; The mean rank for mothers who are having disabled children was (12.4) and for mothers who are not having disabled children was (9.73). The P-value was (0.349). The conclusion according to means rank and the p-value is that the depression scores are not statistically different for mothers of disabled children or for mothers with normal children.

Table (14): Mann Whitney test results on the depression levels of mothers with disabled children compared to mothers with normal children according to the child age categories.

Child age	Dependent	Presence of disability	N	Mean Rank	Sum of Ranks	p-value
<5	depression level	normal	35	30.56	1,069.50	0.001*
		disable	40	44.51	1,780.50	
		Total	75			
5-10	depression level	normal	54	40.78	2,202.00	0.000*
		disable	50	65.16	3,258.00	
		Total	104			
>10	depression level	normal	11	9.73	107.00	.349
		disable	10	12.40	124.00	
		Total	21			

*significant at 0.05 level

Table (15) shows that according to mothers whose children's sex (male), there is a significant difference between mothers' depression score with respect to having or not having disabled children. The difference was in favor of mothers who are having disabled children with mean rank (70.01) which is higher than that for mothers who are not having disabled children with mean rank (43.95). The P-value was less than 0.05. The conclusion according to rank means and the p-value is that the depression score of mothers of disabled children was significantly higher compared to mothers with normal children.

Also, table (15) shows that according to mothers whose children's sex (female), there is a significant difference between mothers' depression score with respect to having or not having disabled children. The difference

was in favor of mothers who are having disabled children with mean rank (50.57) which is higher than that for mothers who are not having disabled children with mean rank (36.88). The P-value (0.001) was less than 0.05. The conclusion according to means rank and the p-value is that the depression score of mothers of disabled children was significantly higher compared to mothers with normal children.

Table (15): Mann Whitney test results on the depression levels of mothers with disabled children compared to mothers with normal children according to the child sex categories.

Child sex	Dependent	Presence of disability	N	Mean Rank	Sum of Ranks	p-value
Male	depression level	normal	53	43.95	2,329.50	0.000*
		disable	62	70.01	4,340.50	
		Total	115			
Female	depression level	normal	47	36.88	1,733.50	0.001*
		disable	38	50.57	1,921.50	
		Total	85			

*significant at 0.05 level

Table (16) shows that according to mothers whose ages (<30), there is a significant difference between mothers' depression score with respect to having or not having disabled children; The difference was in favor of mothers who are having disabled children with mean rank (53.74) which is higher than that for mothers who are not having disabled children with

mean rank (32.99). The P-value was less than 0.05. The conclusion according to means rank and the p-value is that the depression score of mothers of disabled children was significantly higher compared to mothers with normal children.

Table (16) shows that according to mothers whose ages (30-40), there is a significant difference between mothers' depression score with respect to having or not having disabled children. The difference was in favor of mothers who are having disabled children with mean rank (55.97) which is higher than that for mothers who are not having disabled children with mean rank (40.20). The P-value was less than 0.05. The conclusion according to rank means and the p-value is that the depression score of mothers of disabled children was significantly higher compared to mothers with normal children.

Finally, table (16) shows that according to mothers whose ages (>40), there is no significant difference between mothers' depression score with respect to having or not having disabled children; The mean rank for mothers who are having disabled children was (11.96) and for mothers who are not having disabled children was (8.31). The P-value was (0.181) (>0.05). The conclusion according to rank means and the p-value is that the depression scores are not statistically different for mothers of disabled children or for mothers with normal children.

able (16): Mann Whitney test results on the depression levels of mothers with disabled children compared to mothers with normal children according to mother's age categories.

Mother's age	Dependent	Presence of disability	N	Mean Rank	Sum of Ranks	p-value
<30	depression level	normal	44	32.99	1,451.50	0.000*
		disable	41	53.74	2,203.50	
		Total	85			
30-40	depression level	normal	48	40.20	1,929.50	0.000*
		disable	47	55.97	2,630.50	
		Total	95			
>40	depression level	normal	8	8.31	66.50	.181
		disable	12	11.96	143.50	
		Total	20			

*significant at 0.05 level

Table (17) shows that according to mother's educational level (elementary), there is no significant difference between mothers' depression score with respect to having or not having disabled children; The mean rank for mothers who are having disabled children was (18.31) and for mothers who are not having disabled children was (15.43). The P-value was (0.401) (>0.05). The conclusion according to means rank and the p-value is that the depression scores are not statistically different for mothers of disabled children or for mothers with normal children.

Table (17) shows that according to mother's educational level (secondary), there is a significant difference between mothers' depression score with respect to having or not having disabled children; The difference was in favor of mothers who are having disabled children with mean rank (55.58)

which is higher than that for mothers who are not having disabled children with mean rank (32.9). The P-value was less than 0.05. The conclusion according to means rank and the p-value is that the depression score of mothers of disabled children was significantly higher compared to mothers with normal children.

Table (17) shows that according to mother's educational level (diploma), there is no significant difference between mothers' depression score with respect to having or not having disabled children. The mean rank for mothers who are having disabled children was (12.31) and for mothers who are not having disabled children was (8.32). The P-value was (0.129) >0.05). The conclusion according to means rank and the p-value is that the depression scores are not statistically different for mothers of disabled children or for mothers with normal children.

Finally, table (17) shows that according to mother's educational level (university), there is a significant difference between mothers' depression score with respect to having or not having disabled children; The difference was in favor of mothers who are having disabled children with mean rank (35.94) which is higher than that for mothers who are not having disabled children with mean rank (24.96). The P-value(0.002) was less than (0.05). The conclusion according to rank means and the p-value is that the depression score of mothers of disabled children was significantly higher compared to mothers with normal children.

Table (17): Mann Whitney test results on the depression levels of mothers with disabled children compared to mothers with normal children according to the educational level categories.

Educational level	Dependent	Presence of disability	N	Mean Rank	Sum of Ranks	p-value
Elementary	depression level	normal	15	15.43	231.50	.401
		disable	18	18.31	329.50	
		Total	33			
Secondary	depression level	normal	40	32.90	1,316.00	0.000*
		disable	50	55.58	2,779.00	
		Total	90			
Diploma	depression level	normal	11	8.32	91.50	.129
		disable	8	12.31	98.50	
		Total	19			
University	depression level	normal	34	24.96	848.50	0.002*
		disable	24	35.94	862.50	
		Total	58			

*significant at 0.05 level

Table (18) shows that according to mothers whose income (low), there is a significant difference between mothers' depression score with respect to having or not having disabled children. The difference was in favor of mothers who are having disabled children with mean rank (27.64) which is higher than that for mothers who are not having disabled children with mean rank (18.94). The P-value(0.013) was less than (0.05). The conclusion according to means rank and the p-value is that the depression score of mothers of disabled children was significantly higher compared to mothers with normal children.

Table (18) shows that according to mothers whose income (middle), there is a significant difference between mothers' depression score with respect to having or not having disabled children. The difference was in favor of mothers who are having disabled children with mean rank (89.35) which is higher than that for mothers who are not having disabled children with mean rank (58.83). The P-value was less than (0.05). The conclusion according to means rank and the p-value is that the depression score of mothers of disabled children was significantly higher compared to mothers with normal children.

Finally, table (18) shows that according to mothers whose income (high), there is no significant difference between mothers' depression score with respect to having or not having disabled children; The mean rank for mothers who are having disabled children was (5.33) and for mothers who are not having disabled children was (3.00). The P-value was (0.229). The conclusion according to means rank and the p-value is that the depression scores are not statistically different for mothers of disabled children or for mothers with normal children.

Table (18): Mann Whitney test results on the depression levels of mothers with disabled children compared to mothers with normal children according to income categories.

Income	Dependent	Presence of disability	N	Mean Rank	Sum of Ranks	p-value
Low-income	depression level	normal	24	18.94	454.50	0.013*
		disable	21	27.64	580.50	
		Total	45			
Middle-income	depression level	normal	72	58.83	4,235.50	0.000*
		disable	76	89.35	6,790.50	
		Total	148			
High-income	depression level	normal	4	3.00	12.00	.229
		disable	3	5.33	16.00	
		Total	7			

*significant at 0.05 level

Table (19) shows that according to the employed mothers, there is no significant difference between mothers' depression score with respect to having or not having disabled children; The mean rank for mothers who are having disabled children was (17.47) and for mothers who aren't having disabled children was (13.53). The P-value was (0.223) >0.05). The conclusion according to rank means and the p-value is that the depression scores are not statistically different for mothers of disabled children or for mothers with normal children.

And table (19) shows that according to the unemployed mothers, there is a significant difference between mothers' depression score with respect to having or not having disabled children. The difference was in favor of mothers who are having disabled children with mean rank (103.77) which

is higher than that for mothers who are not having disabled children with mean rank (67.23). The P-value was less than 0.05. The conclusion according to rank means and the p-value is that the depression score of mothers of disabled children was significantly higher compared to mothers with normal children.

Table (19): Mann Whitney test results on the depression levels of mothers with disabled children compared to mothers with normal children according to the employment categories.

Employments	Dependent	Presence of disability	N	Mean Rank	Sum of Ranks	p-value
Employed	depression level	normal	15	13.53	203.00	.233
		disable	15	17.47	262.00	
		Total	30			
Unemployed	depression level	normal	85	67.23	5,714.50	0.000*
		disable	85	103.77	8,820.50	
		Total	170			

*significant at 0.05 level

Table (20) shows that according to mothers whose residence (city), there is a significant difference between mothers' depression score with respect to having or not having disabled children. The difference was in favor of mothers who are having disabled children with mean rank (50.30) which is higher than that for mothers who are not having disabled children with mean rank (37.25). The P-value(0.003) was less than (0.05). The conclusion according to means rank and the p-value is that the depression score of mothers of disabled children was significantly higher compared to mothers with normal children.

Table (20) shows that according to mothers whose residence(village), there is a significant difference between mothers' depression score with respect to having or not having disabled children. The difference was in favor of mothers who are having disabled children with mean rank (56.18) which is higher than that for mothers who are not having disabled children with mean rank (33.03). The P-value was less than (0.05). The conclusion according to means rank and the p-value is that the depression score of mothers of disabled children was significantly higher compared to mothers with normal children.

Finally, table (20) shows that according to mothers whose residence (camp), there is no significant difference between mothers' depression score with respect to having or not having disabled children. The mean rank for mothers who are having disabled children was (15.33) and for mothers who are not having disabled children was (10.80). The P-value was (0.138). The conclusion according to means rank and the p-value is that the depression scores are not statistically different for mothers of disabled children or for mothers with normal children.

Table (20): Mann Whitney test results on the depression levels of mothers with disabled children compared to mothers with normal children according to residence categories.

Residence	Dependent	Presence of disability	N	Mean Rank	Sum of Ranks	p-value
City	depression level	normal	42	37.25	1,564.50	0.003*
		disable	45	50.30	2,263.50	
		Total	87			
Village	depression level	normal	43	33.03	1,420.50	0.000*
		disable	46	56.18	2,584.50	
		Total	89			
Camp	depression level	normal	15	10.80	162.00	.138
		disable	9	15.33	138.00	
		Total	24			

*significant at 0.05 level

Table (21) shows that according to nuclear families, there is a significant difference between mothers' depression score with respect to having or not having disabled children.; The difference was in favor of mothers who are having disabled children with mean rank (96.10) which is higher than that for mothers who are not having disabled children with mean rank (66.45). The P-value was less than (0.05). The conclusion according to means rank and the p-value is that the depression score of mothers of disabled children was significantly higher compared to mothers with normal children.

Also, table (21) shows that according to extended families, there is a significant difference between mothers' depression score with respect to having or not having disabled children. The difference was in favor of mothers who are having disabled children with mean rank (25.14) which is

higher than that for mothers who are not having disabled children with mean rank (14.00). The P-value(0.002) was less than (0.05). The conclusion according to means rank and the p-value is that the depression score of mothers of disabled children was significantly higher compared to mothers with normal children.

Table (21): Mann Whitney test results on the depression levels of mothers with disabled children compared to mothers with normal children according to the family style categories.

Family style	Dependent	Presence of disability	N	Mean Rank	Sum of Ranks	p-value
Nuclear family	depression level	normal	82	66.45	5,449.00	0.000*
		disable	79	96.10	7,592.00	
		Total	161			
Extended family	depression level	normal	18	14.00	252.00	.002*
		disable	21	25.14	528.00	
		Total	39			

*significant at 0.05 level

Chapter Six

Discussion and Recommendations

6.1 Discussion

This descriptive, analytical (cross-sectional) study was designed to determine the prevalence and severity of depression among mothers of disabled and non-disabled children in Palestinian society, as well as the depression level with other factors such as socio-economic status, education, family style, and other factors.

The results of this study indicate that 54% of the mothers of disabled children had various degrees of depression, with 18 % suffering from severe depression. For the mothers with non-disabled children, 18% had various degrees of depression, which is within the normal statistics (12-25%) **(WHO, 1990)**.

The result of this study are in agreements with studies that conclude that the mothers of children with disabilities, in comparison to mothers of children with no disabilities suffer from more depression and have a low social function **(Salehi, 2004).** In addition to that, **Adib Sereshki (1999)** showed that the most severe reaction that appears around the time of the birth of a disabled child is depression.

There was also a study done by Baker (2000) and others that found dense anxiety and higher levels of depression in mothers of children with severe behavioral problems **(Baker et al., 2000),** which supports our result that mothers who have disabled children have a higher depression score than mothers of normally developed children.

Having disabled children does not cause depression for mothers only. **Alaghband Raad (2003)** indicated in his research that most of the close relatives of a child with some sort of disorder suffer from various degrees of depression.

In the current study we found the highest level of depression score was among mothers of physically disable and CP children compared to other kinds of disabilities, this could be related to increase in care-giving burden in terms of appointment and life style modification, in addition to the fact that physical disability may be acquired by an accident or other life event, which increases the feeling of guilt, this result was supported by a study done in turkey by Altindag et al (2007) that indicated high level of depression and anxiety symptoms in the mothers of children with CP and There was a significant relation between BDI scores and the level of disability in children.

There is no statistically significant relationship between the child's age and mother's depression score was found in study group, whereas a study done in Qatar shows an increase in depression level in mother of disabled children of 10-14 years **(Al-Kuwari, 2007*)***. Also, a Korean study found that the highest level of psychiatric morbidity was founded among mothers of pre-school mentally disabled children **(Yim et al., 1996)**.

In this study we found that there is no relationship between mothers depression score and their child sex in both study group alone and control group alone

There was no significant relationship found between the mothers' depression score and their age in the study group, which is corroborated with the finding of **Karimi Zarechi (2003).** However, the study reveals that there is a significant relationship between mothers' depression and their age in the control group (mothers of normally developed children); the depression score was highest among mothers with their age above 40 years.

The study reveals that the depression score among mothers did not influenced if mothers live within extended or nuclear family, this finding was not consistent with **(Motamedi et al.2005)** who discussed stigmatization that patients and their families are subjected to.

No significant relationship was found between the depression and educational levels of mothers in both control and study group, which corroborates with a study of **Modabernia (2001),** and another study in Iran (2007) done by **Seyed** and co-worker found no significant relationship between the depression and education of the mothers, however this result in disagreement with a study that states that depression is high among illiterate people **(Sepehrmanesh, 2003; Ramazani, 2001)**.

No significant relationship was found between mothers' employment and depression score in both groups (study and control), which is in agreement with a study done in Iran **(Motamedi et al., 2007),** and is in disagreement with several previous studies **(Bolhari, 2001);(Ramazani, 2001)** that indicate that there is a relationship between mothers' depression and employment.

Economic status was not consistently related to mothers depression in both groups. This is supported by a study done by **Blacher et al. (1997)**. No relationship between the mothers' depression and residence (city, village or camp) were found.

The following hypotheses were tested:

- Mothers of children with disabilities have higher depression scores than control mothers.

  The study reveals that there is a significant relationship between two groups with respect to have or not have disable child, mother who have disable child has higher depression score.
- Elevated depression scores are more common in mothers who live in rural areas compared to urban areas in both groups.

  The study reveals that there is no relationship was found in related to place of residence.
- Mothers have a high depression score if the disable child is female compare to male.

  The study reveals that there is no relationship was found in favor to child sex
- Elevated depression scores are more common in mothers who live with extended family in the study group.

  Study reveals that there is no relationship was found between mothers depression score and family style.

The following discussion is based on results of statistical analysis when we compare between the study group and the control group

Childs sex

Despite sex, according to mothers whose child gender (male or female), there is a significant difference between maternal depression scores in terms of having or not having children with disabilities; The difference was for mothers who have children with disabilities compared with the control. The present study is in line with the studies of Khamseh (2002) and Motamedi et al (2007) who declared that there is significant correlation between maternal depression and child gender.

Mothers 'age

According to mothers whose age (<40), there is a significant difference between maternal depression scores in terms of having or not having disabled children on the other hand, mothers whose ages (> 40), there is no significant difference, the absence of a significant correlation between age of the mothers and their depression is confirmed in other studies (Shariati, 1996, Motamedi et al 2007).

Mothers 'education

According to the mother's level of education (elementary and diploma), there is no significant difference between maternal depression scores in terms of having or not having children with disabilities compared with the

control group, and maternal education (secondary and university), there is a significant difference between maternal depression scores in terms of to have or not have children with disabilities compared with the control group; the current study is partly confirmed by a study of Modabbernia (2003), which showed that no significant relationship was found between depression and education of the mothers, and does not confirm with a study that says depression is high among illiterate **(Sepehrmanesh, 2003, Ramazani, 2001)**.

Family income

According to mothers whose income (low & middle), there is a significant difference between maternal depression scores in terms of having or not having children with disabilities, the results of the current study are in agreement with the study of **Matihide (2006)** who observed that the family income decreases social participation of these individuals, and family stress is as a result of failure to adapt to the environment Contrary to **Matihide (2006)** of the mothers whose income (high) in the current study, there is no significant difference between mothers' depression scores in terms of having or not having disabled children

Employment/unemployment of the mothers

According to the unemployed mothers in the current study, there is a significant difference between maternal depression scores in terms of having or not having children with disabilities which is in compliance with

the study of Ghoreshizadeh (2005) who showed that depression was the fourth reason for loss of employment. The current study is in consistent with the study of who showed that there was a statistically significant relationship between unemployment of mothers of disabled children and the risk of depression. Unemployed mothers have little or no income. Furthermore, the burden associated with financial expenses increased by insufficient public resources in place at the community level **(Mbugua et al 2011)**. Mothers of disabled children might be deprived of the privileges, rights and respect that goes with other careers **(Raina et al 2004).** Furthermore, there is a lack of career development **(Raina et al 2004).** The current study also agreed with the other studies which addressed that there is significant relationship between the mothers' employment situation with depression **(Bolhari, 2001, Ramazani, 2001).**

Nuclear family

According to nuclear families, there is a significant difference in the current study between maternal depression scores in terms of having or not having disabled children compared with the control group; considering most families nowadays are nuclear, and also pay attention to the fact that the disability of one of the children can cause adverse effects on the whole family and cause higher levels of depression among parents of disabled children **(Little, 2003)**, so supporting parents of children with disabilities, reduces their psychological problems such as depression **(Capuzzi, 1989).**

Extended family

In the same context, according to extended families, there is a significant difference even in the present study between maternal depression scores in terms of having or not having children with disabilities; when compared with the control group and the difference was for mothers who have children with disabilities. the extended family would be available to provide care to a disabled child ease the burden of care. Stigma care for disabled children may further predispose their mothers for risk of depression **(Mbugua et al 2011).**

Alaghband Row (2003), explained that most of the close relatives of a child with any kind of disturbance suffering with various levels of depression, so it may be that the mother becomes more depressed when she is surrounded by people with different levels of depression because of her disabled child. Such people normally do not plan to be caregivers but finds the need inevitable **(Eicher and Batshaw 1993).**

6.2 Conclusion:

The results of this study indicate that 54% of the mothers of disabled children had various degrees of depression, with 18 % suffering from severe depression. For the mothers with non-disabled children, 18% had various degrees of depression, which is within the normal statistics (12-25%). **(WHO, 1990)**,

In study group the study reveals that the disability itself tend to be consider as a strong factor in the same group to increase the prevalence of depression, in contrary in control group the study reveals that there are many factors to increase the prevalence of depression among mothers which include: mothers age>40, child age >10, low family income and low education level,

When we compare between the study and control groups , the study reveals that there are many factors to increase the prevalence of depression among mothers in the study group compared to control group which include: child's age <10 years, mother's age <40 years, middle and low income and un-employment.

6.3 Recommendations

- Early recognition of depression symptoms in mothers of disabled children should be of great concern for health care providers and they should be referred to specialists to give them more comprehensive and individualized care.
- Assign the media the responsibility of removing attitudinal barriers and changing behavior and attitudes of the society towards disabled children and their family members.
- Hold seminars that aim at helping the Palestinian care provider to identify the problem of depression symptom, suggest ways of solving it, and be aware of the benefits to the society of solving this problem.
- Work on raising community awareness about the issue of disability to increase acceptance of disabled children and their family in the community.
- Health care providers should instruct mothers with depression to use more adaptive strategies, such as social support, and spiritual help to deal with depression symptoms.
- The use of psychotherapeutic techniques such as group therapy, problem solving therapy and interpersonal therapy is beneficial and effective in treatment and decreases depression symptoms.
- Coordination with officials in the Ministry of Social Affairs and work offices will improve the social and economical status of the family of disabled children.

6.4 psych-Education for mothers

Providing information and training courses in caring and how to deal with a mentally disabled child reduces the risk of developing psychiatric morbidity, like depression in mothers of mentally disabled children. This means that intervention has a preventative effect for psychiatric morbidity in those mothers. Also, as it is known that mothers take the major role for caring for their disabled child, and take responsibilities to meet needs and requirements, other family members, especially the father, should be engaged to help meet the children's needs.

Many studies showed that providing adequate information on child disability and the availability of services along with caring skills training of dealing with a disabled child has a great impact on reducing the psychological distress among mothers of disabled children **(Law et al., 2003; Redmond & Richardson, 2003; Kelly & Monteith, 2003; Taanila et al., 2002**.**Taanila et al. (1998)** found that Finish parents who received information and advice in caring for their disabled children reported positive feelings

toward caring for their children. Such an intervention may clarify the ambiguity of the situation and the future through the given information about the disability. In addition to that, it helps mothers to cope faster through the caring skills taught to them.

6.5 Recommendation for future research

- This study was conducted on mothers, but fathers were not included in the study. As fathers have a significant role in the family, examining the fathers' status may also improve the quality of interventions.
- The impact of depression on quality of life among mothers of disabled children.
- Descriptive, experimental, quasi-experimental, qualitative studies in this field are highly recommended to profoundly investigate the factors which help in improving the lives of mothers of disabled children.

6.6 Limitation of the study

- The study included only mothers who brought their children to rehabilitation centers, and did not include mothers at home.
- Limited statistical recourses of disabled children in the Palestinian territories.
- There was a difficulty in determining the kind of disabilities among children and some cases were not diagnosed well.
- The study did not including if the father participates in caring of their disabled child or not.

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Annexes

جامعة النجاح الوطنية

كلية الدراسات العليا

نموذج موافقة على المشاركة في بحث

- الباحث: نمر احمد حمامرة الطالب في كلية الدراسات العليا / ماجستير تمريض الصحة النفسية والمجتمعية- جامعة النجاح الوطنية
- المشرف على البحث : الدكتوره عائدة ابو السعود القيسي رئيسة دائرة التمريض والقباله في كلية الطب والعلوم الصحية في جامعة النجاح الوطنية و الدكتورة سابرينا روسو محاضره في برنامج ماجستير تمريض الصحة النفسية المجتمعية جامعة النجاح الوطنية.
- الجهة المشرفة: جامعة النجاح الوطنية - كلية الدراسات العليا - قسم التمريض - الصحة النفسية المجتمعية.
- عنوان البحث:

انتشار وشدة الاكتئاب بين امهات الاطفال ذوي الاحتياجات الخاصة في فلسطين

Prevalence and severity of depression among mothers of disabled child in Palestine

ملاحظة : عدد الصفحات 7

معلومات وتفاصيل البحث

مقدمة

أختي المشاركة:انا الباحث نمر حمامرة طالب ماجستير تمريض الصحة النفسية والمجتمعية في جامعة النجاح الوطنية يسرني ان ادعوك الى المشاركة في بحثي المتعلق بمدى انتشار وشدة الاكتئاب بين امهات الاطفال ذوي الاحتياجات الخاصة في فلسطين .

لك كامل الحرية والارادة في المشاركة في هذا البحث ولك الحق في اخذ الوقت الكافي للتفكير في المشاركة من عدمها وسؤال الباحث عما ترينه مناسبا والتحدث لاي شخص او جهة عن هذا البحث.

كما يمكنك الاستفسار عن اي جزء يتعلق في البحث الان او فيما بعد واذا كانت هناك كلمات او اجزاء غير مفهومة بامكانك سؤال الباحث وستجدين الوقت والاجابة الكافيين.

يضمن البحث سرية المعلومات المتعلقة بالمشاركة.

الهدف من البحث

- يهدف هذا البحث لتقدير نسبة انتشاروشدة الاكتئاب بين امهات الاطفال ذوي الاحتياجات الخاصة في فلسطين ومقارنتها بالدول العالمية والمحيطة.

- مقارنة نسبة الاكتئاب وشدتة بامهات الاطفال الاصحاء وتسليط الضوء على هذه الفئة المهمشة والمساعدة في ايجاد الحلول الممكنة.

- لايجاد العلاقة بين الاكتئاب وشدته عند الام (ان وجد) بنوع الاعاقة عند الطفل،المستوى التعليمي ،المستوى المادي والاجتماعي للام.

<u>خاصة بامهات الاطفال الاصحاء</u>

- أختي المشاركة ان مشاركتك في هذا البحث المتعلق بمدى انتشار وشدة الاكتئاب بين امهات الاطفال ذوي الاحتياجات الخاصة في فلسطين لا يعني ان يكون عندك طفل من ذوي الاحتياجات الخاصة وانما من اجل مقارنة نسبة الاكتئاب وشدتة عند الامهات ذوي الاحتاجات الخاصة بامهات الاطفال الاصحاء وتسليط الضوء على هذه الفئة المهمشة والمساعدة في ايجاد الحلول الممكنة.

- ان مشاركتك في هذا البحث هي مشاركة قيمة وتساهم بشكل كبير في انجاز هذا البحث.

الرجاء ضعي اشارة او املئي الفراغ بالاجابة المناسبة.

عمر الطفل: .....

الجنس (الطفل): ذكر / انثي

نوع الاعاقة عند الطفل ان وجد (التشخيص): .....

الفترة الزمنية للاعاقة بالسنوات :.....

عدد الاطفال المعاقين:.....

ترتيب الطفل المعاق في العائلة:.....

عدد الاطفال الاصحاء : .....

عمر الام: .....

الحالة الاجتماعية للام : متزوجة / مطلقة / ارملة

المستوى التعليمي للام.. ابتدائي / توجيهي / دبلوم / جامعي

دخل الاسرة: دخل متدني (قليل) / دخل متوسط / دخل مرتفع

عمل الام: تعمل / لاتعمل / متقاعد

مكان السكن : مدينة / قرية / مخيم

الاسرة تعيش ضمن عائلة : ممتدة / نواة (الاب و الام و الاطفال فقط)

اختبار بك المطول

يتضمن هذا الاختيار 21 مجموعة من العبارات الرجاء ان تقرأ ي كل مجموعة من العبارات بعناية، ثم تختاري عبارة واحدة والتى تصف بطريقة افضل الطريقة التى تشعرين بها خلال الأسبوعين الأخيرين بما في ذلك اليوم.

ضعي دائرة حول الرقم بجوار العبارة التى اخترتها . ولو بدا لك أكثر من عبارة في مجموعة العبارات تنطبق عليك بطريقة متساوية ، ضعي دائرة حول أعلي رقم في هذه المجموعة وتأكدي أنك لا تختارين أكثر من عبارة في اى مجموعة بما في ذلك المجموعة 16.

(تغيرات في نمط النوم) أو المجموعة 18 (تغيرات في الشهية)

البند		
1- الحزن	0	لاأشعر بالحزن
	1	أشعر بالحزن أغلب الوقت
	2	أنا حزينة طول الوقت
	3	أنا حزينة أو غير سعيدة لدرجة لا أستطيع تحملها.
2- التشاؤم	0	لم تفتر همتى فيما يتعلق بمستقبلي.
	1	أشعر بفتور الهمة فيما يتعلق بمستقبلي بطريقة أكبر مما اعتدت.
	2	لاأتوقع أن تسير الأمور بشكل جيد بالنسبة لي.
	3	أشعر بأن لا امل لي في المستقبل وانه سوف يزداد سوءا.
3- الفشل السابق	0	لا أشعر بأننى شخص فاشل
	1	لقد فشلت أكثر مما ينبغى.
	2	كلما نظرت الي الوراء ارى الكثير من الفشل
	3	أشعر بأنى شخص فاشل تماما
4- فقدان الاستمتاع	0	أستمتع بالأشياء قدر استمتاعى بها من قبل..
	1	لا أستمتع بأشياء بنفس القدر الذى اعتدت عليه
	2	أحصل علي قدر قليل جدا من الاستمتاع من الأشياء التى اعتدت أن أستمتع بها.
	3	لا أستطيع الحصول علي أى استمتاع من الأشياء التى اعتدت الاستمتاع بها.
5- مشاعر الإثم (تأبين الضمير)	0	لا أشعر بالإثم (تأنيب الضمير)
	1	أشعر بالأثم (تأنيب الضمير) عن العديد من الأشياء التى قمت بها أو أشياء كان يجب أن أقوم بها.
	2	أشعر بالأثم (تأنيب الضمير) أغلب الوقت.
	3	أشعر بالأثم (تأنيب الضمير) طول الوقت .
6- مشاعر العقاب	0	لا أشعر بأنه يقع علي عقاب.
	1	أشعر بانه يقع علي عقاب.
	2	أتوقع بأنه يقع علي عقاب .
	3	أشعر فعلا بأنه يقع علي عقاب.
7- عدم حب الذات	0	شعوري نحو نفسي كما هو .
	1	فقدت الثقة في نفسي.
	2	خاب رجائي في نفسي.
	3	لا أحب نفسي.

8- نقد الذات	0	لا أنقد أو ألوم نفسي أكثر من المعتاد.
	1	أنقد نفسي أكثر مما اعتدت.
	2	أنقد نفسي علي كل أخطائي.
	3	ألوم نفسي علي كل ما يحدث من أشياء سيئة.
9- الأفكار أو الرغبات الانتحارية	0	ليس لدى أى أفكار انتحارية.
	1	لدى أفكار للانتحار ولكن لا يمكنني تنفيذها.
	2	أريد ان انتحر.
	3	قد انتحر لو سمحت لي الفرصة.
10- البكاء	0	لا أبكي أكثر مما اعتدت.
	1	أبكى أكثر مما اعتدت
	2	أبكى بكثرة من أى شئ بسيط.
	3	أشعر بالرغبة في البكاء ولكني لا أستطيع.
11- التهيج أو الاستثارة	0	لست أكثر تهيجاً أو استثارة عن المعتاد.
	1	أشعر بالتهيج أو الاستثارة أكثر من المعتاد.
	2	أهتاج أو استثار لدرجة أنه من الصعب علي البقاء بدون حركة.
	3	اهتاج أو استثار لدرجة تدفعنى للحركة أو فعل شيئ ما.
12- فقدان الاهتمام	0	لم أفقد الاهتمام بالآخرين أو بالأنشطة .
	1	أهتم بالآخرين أو بالأمور أقل من قبل.
	2	فقدت أغلب اهتمامي بالآخرين والأمور الأخرى.
	3	من الصعب ان أهتم بأى شيئ.
13- التردد	0	اتخذ القرارات بنفس كفاءتي المعتادة.
	1	أجد صعوبة أكثر من المعتاد في اتخاذ القرارات.
	2	لدى صعوبة أكثر بكثير مما اعتدت في اتخاذ القرارات.
	3	لدى مشكلة اتخاذ أى قرارات.
14- انعدام القيمة	0	لا أشعر بأننى عديم القيمة.
	1	لا أعتبر نفسي ذو قيمة وذو نفع كما اعتدت أن أكون.
	2	أشعر بأننى عديمة القيمة بالمقارنة بالآخرين.
	3	أشعر بأننى عديمة القيمة تماماً.
15- فقدان الطاقة	0	لدى نفس القدر من الطاقة كالمعتاد .
	1	لدى قدر من الطاقة أقل مما اعتدت.
	2	ليس لدى طاقة كافية لعمل الكثير من الأشياء.
	3	ليس لدى طاقة كافية لعمل أى شيئ.
16- تغيرات في نمط	0	لم يحدث لي اى تغير في نمط (نظام) نومي.

النوم	1	أ – أنام أكثر من المعتاد الي حد ما. ب – أنام أقل من المعتاد الي حد ما.
	2	أ – أنام أكثر من المعتاد بشكل كبير. ب – أنام أقل من المعتاد بشكل كبير.
	3	أ – أنام أغلب اليوم. ب – أستيقظ من نومى مبكراً ساعة او ساعتان ولا أستطيع أن أعود للنوم مرة أخرى.
17– القابلية للغضب أو الانزعاج	0	قابليتى للغضب أو الانزعاج لم تتغير عن المعتاد.
	1	قابليتى للغضب او الانزعاج أكبر من المعتاد.
	2	قابليتى للغضب او الانزعاج أكبر بكثير من المعتاد.
	3	قابليتى للغضب أو الانزعاج طول الوقت
18– تغيرات في الشهية	0	لم يحدث أي تغير في شهيتى
	1	أ – شهيتي أقل من المعتاد الي حد ما. ب – شهيتي أكبر من المعتاد اليحد ما.
	2	أ – شهيتي أقل كثيرا من المعتاد. ب – شهيتي أكبر كثيرا من المعتاد.
	3	أ – ليست لي شهية علي الاطلاق. ب – لدى رغبة قوية للطعام طول الوقت.
19– صعوبة التركيز	0	أستطيع التركيز بكفاءتى المعتادة.
	1	لا أستطيع التركيز بنفس الكفاءة المعتادة.
	2	من الصعب علي ان أركز عقلي علي أى شيئ لمدة طويلة.
	3	أجد نفسي غير قادر علي التركيز علي أي شئ.
20– الإرهاق أو الإجهاد	0	لست أكثر إرهاقا أو إجهادا من المعتاد.
	1	أصاب بالإرهاق او الإجهاد بسهولة أكثر من المعتاد
	2	يعوقني الإرهاق أو مجهد جداً لعمل أغلب الأشياء التي اعتدت عليها.
	3	أنا مرهقة أو مجهدة جداً لعمل أغلب الأشياء التى اعتدت عليها.
21– فقدان الاهتمام بالجنس	0	لم ألاحظ أى تغير في اهتمامي بالجنس حديثاً.
	1	أنا أقل اهتماما بالجنس مما اعتدت.
	2	أنا أقل اهتماما بالجنس الآن بدرجة كبيرة.
	3	فقدت الاهتمام بالجنس تماما.

جامعة النجاح الوطنية
كلية الدراسات العليا

انتشار وشدة الاكتئاب وسط أمهات الأطفال ذوي الاحتياجات الخاصة

إعداد

نمر احمد نمر حمامرة

إشراف

د.عائدة أبو السعود القيسي

د. سابرينا روسو

قدمت هذه الأطروحة استكمالاً لمتطلبات الحصول على درجة الماجستير في تخصص تمريض الصحة النفسية المجتمعية، بكلية الدراسات العليا في جامعة النجاح الوطنية، نابلس – فلسطين.

2015

انتشار وشدة الاكتئاب وسط أمهات الأطفال ذوي الاحتياجات الخاصة

إعداد

نمر احمد نمر حمامرة

إشراف

د.عائدة أبو السعود القيسي

د. سابرينا روسو

الملخص

مقدمة : امهات الاطفال ذوي الاحتياجات الخاصة غالبا ماتكن معرضات لتوتر كبير واعباء نفسية مقارنة بامهات الأطفال الأصحاء. أمهات الأطفال ذوي الاحتاجات الخاصة تظهرن أيضا اختلالات نفسية أكثر من بقية افراد العائلة وذلك بكونهن الراعي الأول للأطفال. ان اعاقة الأطفال تؤدي الى أعباء اجتماعية ونفسية لهم ولعائلاتهم.

أهداف الدراسة : تقييم مدى انتشار وشدة الاكتئاب بين أمهات الأطفال ذوي الاحتياجات الخاصة مع مجموعة من أمهات الأطفال الأصحاء في شمال الضفة الغربية وذلك من اجل إيجاد قاعدة بيانات واقتراح توصيات إلى صانعي القرار والعاملين في هذا المجال.

تصميم الدراسة وطريقتها والمشاركون فيها : دراسة تحليلية وصفية، حيث أجريت هذه الدراسة في مركزين من مراكز إعادة تأهيل الأطفال ذوي الاحتياجات الخاصة

- جمعية رعاية الأطفال ذوي الاحتياجات الخاصة– نابلس
- مركز فرح – نابلس

أما المجموعة الضابطة فقد تم اختيارها من بعض المدارس ورياض الأطفال الموجودة في نفس المنطقة، ضمت هذه الدراسة مائتين من أمهات الأطفال مصنفين إلى مجموعتين، المجموعة الأولى مائة من أمهات الأطفال ذوي الاحتياجات الخاصة تتراوح أعمارهم من (2–16 سنة) كمجموعة الدراسة، وضمت المجموعة الثانية مائة من أمهات الأطفال الأصحاء كمجموعة

ضابطة أعمارهم من (2–16 سنة)، وقد كانت الاناث تشكل نسبة 47% والذكور نسبة 53% بالنسبة للمجوعة الضابطة، اما مجموعة الدراسة فشكلت الاناث نسبة 38% والذكور نسبة 62%.

شكلت اعاقة متلازمة داون نسبة 10%، الاعاقات السمعية نسبة 18%، اعاقات جسدية نسبة 7%، اعاقات كلامية نسبة 11%، التوحد 18%، التخلف العقلي 14%، الشلل الدماغي 12% واعاقات اخرى 10%. تم تعبئة الاستبيانات من قبل الأمهات والتي تضمنت معلومات شخصية وديمغرافية واستخدم مقياس بيك المترجم لتقيم الاكتئاب عند الأمهات

النتائج : أظهرت الدراسة أن معدل انتشار الاكتئاب بين أمهات الأطفال ذوي الاحتياجات الخاصة هو 54 % ، وان 18% من هذه الأمهات كانت تعاني من الاكتئاب الشديد، أما المجموعة الضابطة (أمهات الأطفال الأصحاء) فقد بينت الدراسة أن 15% يعانين من الاكتئاب بدرجات مختلفة وان 2% يعانين من الاكتئاب الشديد .

عند المقارنة بين مجموعة الدراسة والمجموعة الضابطة ،كشفت الدراسة ان هناك عوامل تزيد من معدل انتشار الاكتئاب بين امهات الاطفال ذوي الاحتياجات الخاصة مقارنة بامهات الاطفال الاصحاء وتضمنت كلا من : عمر الطفل اقل من 10 سنوات، عمر الام اقل من 40 سنة، دخل قليل او متوسط و عدم العمل ، من ناحية اخرى بينت الدراسة عدم وجود علاقة بين الاكتئاب وكلا من : عمر الام ، عمر الطفل ، المستوى التعليمي للام ، دخل الاسرة ونوع العائلة (نواة او ممتدة). اعلى نسبة اكتئاب كانت عند امهات اطفال الاعاقة الجسدية والشلل الدماغي واقل نسبة اكتئاب كانت عند امهات متلازمة داون.

اما بالنسبة الى المجموعة الضابطة فقد بينت الدراسة وجود علاقة ذات دلالة احصائية بين الاكتئاب وعمر الام وكان هناك علاقة بين الاكتئاب ودخل الاسرة ولكنه ليس ذات دلالة احصائية.

الخلاصة:

نتيجة هذه الدراسة تشير الى ان 54% من امهات الاطفال ذوي الاحتياجات الخاصة تعاني من الاكتئاب بدرجات مختلفة حيث ان 18% تعاني من الاكتئاب الشديد اما امهات الاطفال الاصحاء فقد وجدت الدراسةان 15% تعاني من الاكتئاب بدرجات مختلفه،وكانت هذه النسبه متوافقه مع النسبه العالميه (12_25%) (منظمة الصحة العالميه).

اما بالنسبه لمجموعة الدراسه فقد بينت الدراسه ان الاعاقة بحد ذاتها العامل الذي يزيد من نسبة الاكتئاب ، بالمقابل في المجموعة الضابطة بينت الدراسه ان عوامل عدة تزيد من نسبة الاكتئاب بين الامهات مثل : عمر الام اكثر من 40 سنه ،عمر الطفل اكثر من 10 سنوات دخل متدني للاسرة،ومستوى تعليمي متدني للام.

التوصيات:

الكشف المبكر عن علامات الاكتئاب عند أمهات الأطفال ذو الاحتياجات الخاصة يجب ان يكون من ضمن أولويات مقدمي الخدمات الصحيه، برامج اعادة التاهيل الفعالة يجب ان تقدم الفرصة الكافية لمقابلات ومتابعة دورية للام وليس فقط تقديم معلومات حول الاعاقة بل ايضا تقديم دعم نفسي، برامج اعادة التأهيل يجب أن تكون موجهة الى الطفل والأم والعائلة بدلا من الطفل وحده.