

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



**Prevalence of Depression and Anxiety Disorders Among  
Women of Childbearing Age Attending Primary Care  
Centers in the Gaza Governorates**

**Sooma M. Baroud**

**M.Sc Thesis**

**Jerusalem – Palestine**

**1429/ 2008**

**Prevalence of Depression and Anxiety Disorders Among  
Women of Childbearing Age attending Primary Care  
Centers in the Gaza Governorates**

**Prepared by**

**Sooma M. Baroud**

**B.Sc. MD, Aleppo University, Syria**

**Supervisor**

**Dr. Fadel Kh. Abu Hein**

**Assistant Professor of Mental Health  
Al A-qa university-Gaza**

A thesis Submitted in Partial fulfillment of requirements for the  
degree of Master of Community Mental Health

School of Public Health - Gaza

Al-Quds University- Palestine

**1429/ 2008**



## Thesis Approval

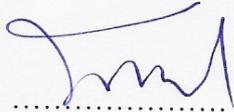
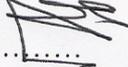
### Prevalence of Depression and Anxiety Disorders Among Women of Childbearing Age attending Primary Care Centers in the Gaza Governorates

Prepared By: Sooma M. Baroud  
Registration No.: 20512074

Supervisor: Dr. Fadel Abu Hein

Master thesis submitted and accepted, Date: 24/ 5/ 2008

The names and signatures of the examining committee members are as follow:

- |                      |                         |   |
|----------------------|-------------------------|---|
| 1. Head of Committee | Dr. Fadel Abu Hein      |  |
| 2. Internal Examiner | Dr. Abdel Aziz Thabet   |  |
| 3. External Examiner | Dr. Ahmed Abu Tawaheena |  |

Al-Quds University

1429/2008

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

﴿يَرْفَعُ اللَّهُ الَّذِينَ آمَنُوا مِنْكُمْ وَالَّذِينَ أُوتُوا الْعِلْمَ  
دَرَجَاتٍ وَاللَّهُ بِمَا تَعْمَلُونَ خَبِيرٌ﴾

صدق الله العظيم

سورة المجادلة

آية " 11 "

## **Dedication**

**This work is dedicated to:**

**My parents; may Allah rest their souls in peace.**

**Sooma M. Baroud**

## **Declaration**

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

**Signed:** .....

**Sooma M. Baroud**

**24/ 5/ 2008**

## **Acknowledgment**

I would like to Acknowledge my advisor Dr. Fadel Abu Hein, for his supervision, guidance, patience, support, and encouragement. He generously offered me the opportunity to continue in my study. I am deeply grateful to him for realizing my life time wish.

I would like to thank all my teachers in the school of public health;

Dr. Yehia Abed, Dr.Ahmed Abu Tawaheena, and Dr. Abdel Aziz Thabet.

My great acknowledgment to my brother Thaer Baroud; senior epidemiologist in the U.S.A.

Many thanks to my colleagues for encouraging and supporting me.

Thanks to every one who participated in this study and to every one whom not mentioned by the name.

Sooma M. Baroud

## **Abstract**

This study aimed to estimate the prevalence of depression and anxiety, and correlation between depression and anxiety., and to investigate the impact of demographic and socio-economic factors on depression and anxiety among (461) women of childbearing age (15-44 years old) attending 10 governmental and UNRWA's primary care centers in the Gaza governorates. Women with chronic diseases, and previous mental health diseases were excluded.

The researcher used socio-economical status questionnaire, Beck Depression Inventory (BDI), and Taylor Manifestation Anxiety Scale (TMAS).

The results found that there were (30.2%) of the study sample had moderate depression, and (3.7%) had sever depression. (41.6%) had moderate anxiety, and (7.2%) of the study sample had sever anxiety. there was a positive significant correlation between depression and anxiety among the study sample of the childbearing age women. There were significant differences in depression and anxiety according to the marital status of the study sample. In favor to divorced childbearing age women. There were significant differences in depression and anxiety according to the educational level of the study sample. the results revealed that there were nearly a negative correlation between depression and anxiety and the educational level of the study sample.

The results found that there were a significant differences in depression and anxiety according to the family income of the study sample. The results revealed that there was a negative correlation in depression and anxiety and the family income of the study sample. The results found that there were no significant differences in depression and anxiety according to the types of clinics, age, last delivery, type of residence, size of family or according to the job of the study sample of the childbearing age women.

(461)

(44-15)

( 10)

( )

(%3.7)

(%30.2)

(%7.2)

(%41.6)

## Table of contents

Subjects	Page
Declaration	i
Acknowledgement	ii
Abstract	iii
Table of contents	v
List of tables	ix
List of appendices	x

Chapter 1	Introduction	Page
1.1	Background	2
1.2	Study justification	4
1.3	Objectives of the study	4
1.3.1	Specific objectives	5
1.4	Study questions	5
1.5	Definitions	6
1.6	General overview	8

Chapter 2	Literature review	Page
2.1	Theories of depression	10
2.1.1	Psychoanalytic theory of depression	10
2.1.2	Behavioral theory	11
2.1.3	Humanistic theory	12
2.1.4	Cognitive theory	13
2.1.5	Biological and physiological theories	15
2.2	Theories of anxiety	16
2.2.1	Psychoanalytic theory	16
2.2.2	Behavioral theory	18
2.2.3	Cognitive theories of anxiety	21
2.2.4	Physiological theories	22
2.3	Mental health problems among childbearing age women	24
2.3.1	Studies of depression among childbearing age women	24

2.3.2	Studies of anxiety among childbearing age women	33
2.3.3	Studies of depression and anxiety among childbearing age women	36
2.3.4	Discussion of the previous studies	43
<b>Chapter 3</b>	<b>Theoretical framework</b>	<b>Page</b>
3.1	Depression	49
3.1.1	Background and definitions	49
3.1.2	Prevalence of depression among women	52
3.1.3	Diagnosis of depression	54
3.1.4	Major depression	55
3.1.5	Factors associated with depression among women	56
3.2	Anxiety disorders	59
3.2.1	Background and definitions	59
3.2.2	Diagnosis of anxiety	60
3.2.3	generalized anxiety disorder	62
3.2.4	Prevalence of anxiety disorder among women	64
3.2.5	Factors associated with anxiety among women	66
3.2.6	The co-morbidity of depression and anxiety among women	66
3.3	Childbearing age women	68
3.3.1	Menstruation	69
3.3.2	Contraception	69
3.3.3	Abortion	70
3.3.4	Pregnancy	71
3.3.5	Childbirth	73
3.3.6	Menopause	75
3.4	Primary health care centers	76
3.5	Conclusion	77

<b>Chapter 4</b>	<b>Methodology</b>	<b>Page</b>
4.2	Study design	81
4.3	Population and sample	82
4.3.1	Study population	82
4.3.2	Study sample	82
4.4	Place of the research	83
4.5	Ethical considerations	83
4.6	Instruments of the study	84
4.6.1	Socio-economic status (developed by the researcher)	84
4.6.2	Beck depression Inventory (BDI-2)	84
4.6.3	Taylor manifestation anxiety scale (TMAS)	85
4.7	Validity and reliability of the instruments	85
4.7.1	Validity and reliability of Beck depression inventory	85
4.7.2	Validity and reliability of Taylor manifestation anxiety scale	86
4.8	Data collection, entry and analysis	86
4.9	Eligibility criteria	87
4.9.1	Inclusion criteria	87
4.9.2	Exclusion criteria	87
4.10	Limitations	87
<b>Chapter 5</b>	<b>Results</b>	<b>Page</b>
5.1	Socio-demographic results of the study sample	89
5.2	Prevalence of depression and anxiety among the study sample	94

5.2.1	Prevalence of depression among the study sample	94
5.2.2	Prevalence of anxiety among the study sample	94
5.2.3	The relation between depression and anxiety among the study sample	95
5.3	Depression and anxiety according to socio-demographic variables among the study sample	95
5.3.1	Depression and anxiety according to type of the clinics	95
5.3.2	Depression and anxiety according to age of the study sample	96
5.3.3	Depression and anxiety according to marital status of the study sample	97
5.3.4	Depression and anxiety according to time of last delivery of the study sample	98
5.3.5	Depression and anxiety and type of residence	99
5.3.6	Depression and anxiety according to the size of family	99
5.3.7	Depression and anxiety according to educational levels	100
5.3.8	Depression and anxiety according to the job of the study sample	102
5.3.9	Depression and anxiety according to the family income of the sample	102
<b>Chapter 6</b>	<b>Conclusion and Recommendations</b>	<b>Page</b>
6.1	Main results	105
6.2	Discussion	107
6.3	Conclusion	116
6.4	Recommendations	119
References		121
Appendices		130

## List of Tables

No.	Title	Page
1.	Distribution of the sample according to governorates	82
2.	Distribution of the sample according to the name of the clinics	83
3.	Correlations of test re-test reliability of BDI-2	85
4.	Distribution of the sample according to the governorates	89
5.	Distribution of the sample according to the type of the clinic	90
6.	Distribution of the sample according to the age of the sample	90
7.	Distribution of the sample according to the marital status	90
8.	Distribution of the sample according to last delivery	91
9.	Distribution of the sample according to size of family	91
10.	Distribution of the sample according to type of residence of the sample	92
11.	Description of the sample according to level of education	92
12.	Description of the sample according to job	93
13.	Description of the sample according to family income “NIS”	93
14.	Prevalence of depression among the study sample	94
15.	Prevalence of anxiety among the study sample	94
16.	Correlation between depression and anxiety among the study sample	95
17.	Independent t-test comparing means of depression and anxiety according to the type of the clinics	96
18.	One-way ANOVA comparing depression and anxiety according to age	96
19.	One-way ANOVA comparing depression and anxiety according to marital status	97

<b>No.</b>	<b>Title</b>	<b>Page</b>
20.	Means of depression and anxiety according to marital status	98
21.	One-way ANOVA comparing depression and anxiety according to time of last delivery	98
22.	One-way ANOVA comparing depression and anxiety according to type of residence	99
23.	One-way ANOVA comparing depression and anxiety according to size of family	100
24.	One-way ANOVA comparing depression and anxiety according to educational level	100
25.	Means of depression and anxiety according to educational level	101
26.	One-way ANOVA comparing depression and anxiety according to job	102
27.	One-way ANOVA comparing depression and anxiety according to family income	103
28.	Means of depression and anxiety according to family income	103

### **List of Appendices**

<b>No.</b>	<b>Appendices contents</b>	<b>Page</b>
1.	Helsinki approval letter	131
2.	Governmental PCCs approval letter	132
3.	UNRWA PCCs approval letter	133
4.	Arabic introduction of the questionnaire	134
5.	Socio-demographic questionnaire	135
6.	Beck's depression inventory "BDI-2"	136
7.	Taylor's manifestation anxiety scale "TMAS"	139
8.	DSM-IV diagnostic criteria for major depression	141
9.	DSM-IV-TR Diagnostic criteria for generalized anxiety disorder	143

# **Chapter One**

## **Introduction**

## Chapter one

### Introduction

#### 1.1 Background

Many depressed and anxious people do not seek help; the ones who do seek help encounter pastors, doctors, or even mental health professionals who do not always recognize depression and anxiety. Even when depression and anxiety are recognized by a professional, the intervention is too often ineffective (Becker, 1991). A large part of the motivation for this work is to make pastors and pastoral counselors aware of both the features of depression and anxiety and effective interventions. It is a deep hope that this work can contribute to the growing awareness of depression and anxiety among women of childbearing age in the Gaza governorates.

There are many changes in the period of the childbearing age women; menstruation, contraception, pregnancy, abortion, childbirth and motherhood, were ended in the menopause, these changes associated to physical and psychological pains, which leads to psychological problems as negative emotions, psychological distress, depression and anxiety.

Awareness of depression can facilitate diagnosis. Women may present at certain times, such as premenstrual and premenopausal periods . Women tend to have a more chronic pattern of depressive illness than men and to express more symptoms of appetite/weight changes, sleep disturbances, psychomotor retardation, guilt, panic, anxiety, and somatization (especially pain syndromes) (Rosenfeld , 2004).

Recent studies show that in many underserved population, women have considerable mental health problems and essential needs. However until recent years the conceptions of women's mental health have been limited as have attempts to protect and promote it . When women's health issues have been addressed in population ,activities have tended to focus on issues associated with reproduction such as family planning and childbearing ,while women's mental health has been relatively neglected (WHO, 1995). Women are integral to all aspects of society, however, the multiple roles that they fulfill in society ;render them at greater risk of experiencing mental health problems than others in the community ,women bear the burden of responsibility associated to being wives, mothers and caregivers of others. increasingly ,women are becoming an essential part of labor force and in one-quarter to one-third of households they the prime source of income (WHO, 1995). In addition to the many pressures placed on women, they must contend with significant gender discrimination

and the associated factors of poverty, hunger, malnutrition and overwork .An extreme but common expression of gender inequality is sexual violence perpetrated against women. These forms of socio-cultural violence contribute to the high prevalence of mental problems experienced by women .

As the researcher works as a physician with women in the last decade she have come to know many women who have suffered from periods of depression and anxiety. She has seen the effects depression and anxiety has not only on the ability to experience the joys of life, the bliss of love, the depths of beauty, and passion for the true and the just, but also on the ability to make good decisions, or to make decisions at all. The researcher has seen lives curtailed by depression and anxiety because of options not taken, talents not developed, in the choice of life's partner or life's work. Often these sufferers from depression and anxiety conclude that they are flawed, that life offers little but crumbs. It is heartbreaking not only to see the pain and emptiness of the inner experience of depression and anxiety, but also to see its effects on the course of a life.

## 1.2 Study Justification

As a medical practitioner working in the field of family planning and women's health in the Gaza area for the last 10 years, the researcher have noticed that women of childbearing age with psychological problems are more likely to have physiological one's during both prenatal and postnatal periods, which may result in unfavorable birth outcomes (i.e. preterm birth ,low birth weight , and infants death). The researcher wanted to research her anecdotal observation by estimating the prevalence of depression and anxiety and possibly its association with women's health outcomes.

This study comes at a time when the Palestinian population is in a paramount need for it, particularly women. Palestinian women of childbearing age (15 – 44 years) have been living in a conflict area for generations, which has rendered their lives miserable. In this most populous area in the world, many women have been exposed to traumatic life experiences, left alone and being a female in a traditional society. With the everlasting deterioration in the Palestinian difficulties and its ramifications on the economy and living conditions, findings from this study would provide the population-based prevalence estimates of these disorders. Such information will aid in planning and setting up scientific-based strategies and policies. For example, because of the scarcity of resources, findings will help determine areas with the most need for sustainable community programs and services for treating and diagnosing depression and anxiety among women of childbearing age.

## 1.3 Objectives of the study

To understand psychological profile of depression and anxiety among women of childbearing age attending primary care centers in the Gaza governorates.

### **1.3.1 Specific objectives:**

1. To estimate the prevalence of depression and anxiety of childbearing age women attending primary care centers in the Gaza governorates.
2. To identify the demographic and socio-economic factors affecting the prevalence of depression and anxiety among women of childbearing age attending primary care centers in the Gaza governorates.
3. To investigate the correlation between depression and anxiety among women of childbearing age attending primary health care centers in the Gaza governorates.

### **1.4 Study questions**

This study aimed to answer the following questions about the prevalence of depression and anxiety among childbearing age women insight of demographical variables, as the following:

1. What is the prevalence of depression and anxiety among the study sample?
2. What is the socio-demographic characteristics of the study sample of childbearing age women?
3. Is there a significant correlation between depression and anxiety among the study sample?
4. Are there significant differences in depression and anxiety according to socio-demographic variables among the study sample?

## **1.5 Definitions**

### **1.5.1 Depression**

Depression is defined as emotional state or mood characterized by one or more of these symptoms: sad mood, low energy, poor concentration, sleep or appetite changes, feelings of worthlessness or hopelessness, and thoughts of suicide (Strickland, 2001).

Depression defined in terms of the following attributes (Beck, 1970). The researcher will adopt Beck's definition.

1. A specific alteration in mood: sadness, loneliness, apathy.
2. A negative self-concept associated with self-reproaches and self-blame.
3. Regressive and self-punitive wishes: desires to escape, hide, or die.
4. Vegetative changes: anorexia, insomnia, loss of libido.
5. Change in activity level: retardation or agitation.

### **1.5.2 Anxiety**

Anxiety disorders can be defined as conditions characterized by pathological anxiety that has not been caused by physical illness, is not associated with substance use, and is not part of a psychotic illness. It is often assumed that normal anxiety has an adaptive role, because it serves as a signal that there is danger and that measures need to be taken (e.g., a fight or flight response) to protect oneself against that danger; both the danger perceived and the measures taken are considered appropriate (i.e., not exaggerated) in normal anxiety (Starcevic, 2005).

The researcher will adopt Taylor manifestation anxiety scale(TMAS) for the current study.

### **1.5.3 Childbearing age women**

The number of females in Palestine at the age group of 15- 49 is estimated to 838,555 (45.1%) of the total number of the females in 2005, out of which 543,075 in West Bank (46.4%) and 295,480 (43%) in Gaza Strip (MOH, 2006). Childbearing age women means that; women of reproductive age (from the first **menstrual period** "menarche" through menopause) (Varney et al, 2004). While the typical childbearing years envelop the ages of 15 through 44 years (Klossner, 2005). And the researcher adopts the definition of (Klossner, 2005), then operationally considered the childbearing age women were aged (15 – 44 old years).

### **1.5.4 Primary care centers**

Primary health care system (PHC) is a major component of Palestinian health care system; this system has provided health care to all Palestinian people. Classification of PHC according to providers in the Gaza Strip and West Bank shows that, the MOH is considered the main provider with 63.6% from the total PHC centers, followed by the NGOs with 28.3%, then UNRWA with 8.1% (MOH, 2006). In the Gaza Strip there are 58 Primary health care centers sponsored by Ministry of Health and 15 centers sponsored by UNRWA (MOH, 2006).

### **1.5.5 Gaza Governorates – geography and demography:**

Palestinian region stretches from Ras Al-Nakoura in the north to Rafah in the south. The entire area of Palestine is about 27,000 Square Kilometer, including Tabariya, El-Hoola lakes and half of the area of Dead Sea. Now, Palestine National Authority territories comprises two areas separated geographically: the West Bank and the Gaza Strip. The total area is 6,020 sq. Km. with total population living in is 3,762,005 individuals in 2005 with capita per sq Km 625 (MOH, 2006). The Gaza Strip is a narrow piece of land lying on the coast of the Mediterranean sea. Its position on the crossroads from Africa to Asia made it a target for occupiers and conquerors over the centuries. The last of these was Israel who occupied the Gaza strip from Egyptians in 1967. Gaza Strip is very crowded place with area 365 sq. Km and constitute 6.1% of total area of Palestinian territory land. In mid year of 2005 the population number is to be 1,389,789 (703,532 of them are males and 686,257 are females), mainly concentrated in the cities, small village, and eight refugee camps that contain two thirds of the population of the Gaza Strip. In the Gaza Strip, the population density is 3,808 inhabitants/km<sup>2</sup> that comprises the following main five governorates: North Gaza, Gaza, Mid Zone, Khan Younis, and Rafah (MOH, 2006).

The number of females in Palestine at the age group of 15- 49 years is estimated to 838,555 (45.1%) of the total number of the females in 2005(the age range considered in this study is 15-44), out of which 543,075 in West Bank (46.4%) and 295,480 (43%) in the Gaza Strip. The percentage of women of childbearing age of total population is 22.3% (MOH, 2006)

### **1.6 General overview**

In the first chapter the researcher point out the research problem, justification of the study, objectives and the research questions. In chapter two the researcher will put on the hand the theories and the previous studies that related to this study. Chapter three take out the theoretical framework of the study. But in chapter four the researcher denoted the used instrument and its clarifying and the sample distribution. However in chapter five the researcher will present the results of the study that achieved from the data collection and analysis indicating its significance. Furthermore, in chapter six the researcher will introduce the main results, and make inferences about the research problem including the recommendation.

# **Chapter Two**

# Literature Review

# **Chapter Two**

## **Literature Review**

In this chapter the researcher will show the literature reviews in two main categories, the first one is divided into two themes; theories of depression and theories of anxiety. The second category is about the previous studies which related to the current study. This category is divided into three parts; the first is about depression, the second is about anxiety, and the third part is about the previous studies of depression and anxiety among the childbearing age women.

### **2.1 Theories of depression**

Various theories have been proposed to explain depression such as; psychoanalytic theory, behavioral theory, humanistic theory, cognitive theory and biological and physiological. Theories will be showed in the following review:

#### **2.1.1 Psychoanalytic theory of depression**

Sigmund Freud (1856-1939) Austrian neurologist and the founder of psychoanalysis (Strickland, 2001). Freud developed a theory of personality and psychopathology (disorders of psychological functioning that include major as well as minor mental disorders and behavior disorders), a method for probing the realm of the unconscious mind, and a therapy for dealing with personality disorders. He posited that an individual is motivated by unconscious forces that are instinctual in nature. The two major instinctual forces are the life instincts, and the death instinct. Their source is biological tension whose aim is tension reduction through a variety of objects. Freud viewed personality as a closed system composed of three structures: the id, ego, and superego (Piotrowski, 2005).

Freud (1917) compared melancholia to normal grief. While both may occur as a reaction to loss of a loved object, melancholia may occur in specially predisposed people in reaction to an imaginary or vaguely perceived loss that deprives the ego. The melancholic's self-accusations were seen as manifestations of his hostility toward the lost loved object. Freud explained this phenomenon as the narcissistic identification of the ego with the object through introjection, a regression to the oral stage of erotic development. (In his further consideration of psychic introjection, Freud referred to the "self-criticizing faculty" of the ego, the foundation for his later concept of superego. He hesitated to generalize too widely in this regard, because of his uncertainty as to the somatic aspects of melancholia) (Beck, 1970).

Psychoanalytic theory, which argues that depression results from the loss of an ambivalently loved person or loss of a "love object," which leads to a self-directed hostility and constitutes the depressive experience (Marsella, 1994); this approach suggests that the self-punishment that accompanies depression may actually be an unconscious effort to regain maternal love and support, or that in cases of traumatic experiences in childhood there is resultant faulty ego and libido development with fixation at an earlier state of insecurity and helplessness, (Roeckelein, 1998), (Thabet, 2005).

### **2.1.2 Behavioral theory**

John Watson (1878 - 1958) is best known as the founder of behaviorism, which he defined as an experimental branch of natural science aimed at the prediction and control of behavior. Watson considered the ultimate aim of psychology to be the adjustment of individual needs to the needs of society (Strickland, 2001).

Watson's position was formed as a reaction to the contemporary focus of psychology on consciousness and the method of research known as introspection, which he considered to be highly subjective. Using the research of the Russian physiologist Ivan Pavlov (1849-1936), Watson's behaviorism was an extension of Pavlov's discovery of the conditioning of stimulus-response reflexive relationships. The term "reflex" refers to the connection between some environmental event, or stimulus, and the response that it elicits. The response is involuntary—inborn or unlearned—and relatively simple. In addition, no prior learning is necessary for the response to occur when the stimulus is presented (Piotrowski, 2005).

The behavioral theories explain that; "response contingent positive reinforcement" and which argues that depression develops when individuals receive inadequate amounts of positive reinforcement in their lives (Marsella, 1994); the learned helplessness theory of behaviorism, which proposes that when humans or animals are trapped in situations in which they cannot avoid threat or harm, and where uncontrollable aversive events produce an expectancy that one cannot control stressors, they develop a sense of helplessness, resignation, or hopelessness and act "depressed" (Roeckelein, 1998).

Skinner (1953) described depression as loneliness due to the interruption of established sequences of behavior which have been positively reinforced in the past. The conceptualization of depression as an extinction phenomenon has been central to all behavioral position. Depression for him is defined as: (1) retardation of psychomotor and thought processes, and (2) reduction or absence of previously reinforced behaviors. He suggested that the depressive's failure to produce adaptive behaviors may be due to a number of factors, including (a) sudden environmental changes that require the establishment of new sources of reinforcement; (b) engaging in a punishable behavior that preempts the opportunity for positive reinforcement; (c) inaccurate observation of the environment, resulting in socially inappropriate behavior; and (d) a low frequency of positive reinforcement (Thabet, 2005).

### **2.1.3 Humanistic theory**

Abraham Maslow (1908-1970) American psychologist. A central figure in humanistic psychology and in the human potential movement, Maslow is known especially for his theory of motivation or needs. Maslow placed the need of self actualization at the peak of his hierarchy of human motivations, the concept for which he is best known today. This hierarchy is generally portrayed as a pyramid with five levels, ranging from the most basic needs at the bottom to the most complex and sophisticated at the top. From bottom to top, the levels are biological needs (food, water, shelter); safety; belongingness and love; the need to be esteemed by others; and self-actualization, the need to realize one's full potential (Strickland, 2001).

Also; Carl Rogers (1902-1987) American psychologist who developed a nondirective, patient-centered method of psychotherapy Rogers believed that the mental condition of virtually all patients, whom he

referred to as clients, can be improved, given an appropriate psychotherapeutic environment (Strickland, 2001).

In this theory depression results when a person feels responsible for his hopelessness in regard to the attainment of goals. The author distinguishes three forms of depression, which vary with the kind of goal—a specific situation, a behavior style, or a generalized goal—to which the person directs his expectancy (Beck, 1970).

#### **2.1.4 Cognitive theory**

Aaron T. Beck was born in Island, on 1921, Beck establish the Beck Institute for cognitive therapy and research. The cognitive method involves a person using rational thoughts to overcome fears rather than delving into the unconscious causes of those fears. (Strickland, 2001).

According to Beck, in cognitive therapy and the emotional disorders (1976), cognitive distortions cause many, if not most, of a person's depressed states. Three of the most important cognitive distortions are arbitrary inference, overgeneralization, and magnification and minimization. Arbitrary inference refers to the process of drawing a conclusion from a situation, event, or experience when there is no evidence to support the conclusion or when the conclusion is contrary to the evidence. For example, an individual concludes that his boss hates him because she seldom says positive things to him. Overgeneralization refers to an individual's pattern of drawing conclusions about his or her ability, performance, or worth based on a single incident. An example of overgeneralization is an individual concluding that he is worthless because he is unable to find his way to a particular address (even though he has numerous other exemplary skills). Magnification and minimization refer to errors in evaluation that are so gross as to constitute distortions. Magnification refers to the exaggeration of negative events; minimization refers to the under emphasis of positive events (Piotrowski, 2005).

The cognitive theory, which emphasizes the role of one's faulty thought processes, including factors such as logic errors, selective abstraction, arbitrary inferences, overgeneralizations, excessive magnification, and dichotomous/distorted thinking (Marsella, 1994), (Roedelein, 1998).

Beck (1967) exemplifies cognitive theories of depression with the starting point that thoughts and beliefs cause emotional states. He argues that people become depressed through making a logical error; they distort events into self-blame. An event that is normally seen as just irritating (say, spilling a drink) is seen as another example of the utter hopelessness of life. So depressed persons draw illogical conclusions about themselves (Strongman, 2003).

According to Beck, there are three important aspects of these distortions or depressive cognitions. First, they are automatic—that is, they occur without reflection or forethought. Second, they appear to be involuntary. Some patients indicate that these thoughts occur even though they have resolved not to have them. Third, the depressed person accepts these thoughts as plausible, even though others would not view them in the same manner (Piotrowski, 2005).

Beck (1967) refers to such illogicalities as 'schemata'. The depressed person interprets all events from the schema of self-depreciation and self-blame. Four types of logical error are possible here (Strongman, 2003):

1. arbitrary inference, when there is no evidence for a conclusion drawn (I am useless because the shop was closed when I went to buy something);

2. selective abstraction, in which a conclusion is drawn from only one element of the many possible (it is my fault that the firm that I work for is full of unintelligent people);
3. overgeneralization, or the making of a massive conclusion from a trivial starting point (I am completely thick because I did not understand that one point);
4. magnification and minimization, which simply involve errors in judging performance (I told one white lie and completely lost all integrity).

While there is ample empirical support for the association of depression and negative cognitive factors such as cognitive distortions, irrational beliefs, and negative statements about oneself, research that demonstrates the ability of cognitive variables to predict subsequent depression is just beginning. It appears that a cognitive vulnerability plays a role in symptom formation for at least some individuals and in the maintenance of ongoing episodes of depression for many, if not all, depressed persons (Piotrowski, 2005). According to cognitive theories of depression, dysfunctional cognitions are stable (i.e., trait-like) characteristics of depressed individuals that place them at elevated risk for further depressive episodes. That is, these characteristics should be observed whether or not an individual is currently in a depressive state. Such a conceptualization, therefore, would suggest that the cognitions of remitted depressives will be similar to those of currently depressed individuals. Yet, several types of evidence appear to suggest that such cognitions are state-dependent, rather than trait-dependent, appearing to wax and wane with depressive symptoms (Davidson, 2000).

Depression during pregnancy, anxiety during pregnancy, experiencing stressful life events during pregnancy or the early puerperium, low levels of social support were the strongest predictors of postpartum depression (Robertson et al. 2004).

### **2.1.5 Biological and physiological theories**

The biological theories include the genetic theories, in which it is assumed that genetic factors interact with environmental factors and where heredity influences emotional lability, cellular functioning, basic arousal levels, stimulus threshold levels, and other physiological substrates of behavior (Marsella, 1994). Kraines (1965) says that there is frequently a history of "hereditary susceptibility," especially in identical twins. He infers that the occurrence of postpartum depressions, premenstrual depressions, and the greater frequency of manic attacks in youth and depressive attacks later in life are due to hormonal changes. (For a critique of the hereditary and endocrine studies (Beck, 1970).

The course of the illness suggests a physiological basis because of its onset in personalities that are presumably well adjusted; its onset in the absence of significant precipitating stress; and the "basically identical onset, symptoms, and course in the majority of patients despite their otherwise radical differences in culture, status, etc." The therapeutic results which suggests a physiological basis include the "spontaneous remission of the illness in the absence of any therapy; failure of psychotherapy to shorten the illness or to prevent recurrences; beneficial results of such physical therapies as drugs and electric shock." (Beck, 1970) The electrolyte metabolism, which focus on sodium and potassium in the brain (e.g., Shaw & Coppen, 1966),

and the pituitary-adrenal axis theories, which argue that the primary problem in depression disorders rests in the hypothalamic-pituitary-adrenal axis (Roeckelein, 1998). Kraines (1965) presented an elaborate theory in which the hypothalamus plays a significant role. The schematic outline is as follows: A stimulus from the cerebral cortex excites the hypothalamus, this in turn produces a stimulation of the somato-visceral system, the feedback from this system stimulates the reticular system and is further integrated and elaborated in the thalamus and limbic system, the impulses finally terminate in the cerebral cortex. According to Kraines, the complex circuit thus traversed is an "emotional circuit." Kraines believes that the sensory experience thus derived from the emotional circuit is mood. He asserts that pathology of the hypothalamus is responsible for the manic-depressive illness. He regards psychopathological symptoms as secondary; they are psychodynamic defenses against the state of alarm induced by the physiopathology of the diencephalons (Beck, 1970). Genetic inheritance makes some people more likely than others to suffer from depression. More than 60% of people who are treated for depression have family members who have been depressed at some time, and there is a 15% chance that immediate biological relatives of a depressed person will develop depression (Strickland, 2001). One explanation for increased vulnerability to depression in close relatives of depressed individuals is an inherited deficiency in two key components of brain chemistry: nor-epinephrine and serotonin, both of which are neurotransmitters. If depressions could be reliably sub-typed according to the primary neurotransmitter deficiency, the choice of antidepressant medication would logically follow (Piotrowski, 2005). The most current theories and perspectives of depression focus on the interaction of biological, psychological, and sociological levels of functioning. Such new approaches integrate the older theories and offer the promise of new insights into depression, its manifestations, diagnosis, and treatment (Marsella, 1994), (Roeckelein, 1998).

## **2.2 Theories of anxiety**

In anxiety literatures there are various theories such as; psychoanalytic, behavioral, cognitive and physiological theories. The researcher will expose these theories in the following review:

### **2.2.1 Psychoanalytic theory:**

Sigmund Freud, who said that understanding anxiety "would be bound to throw a flood of light on our whole mental existence," had two theories of anxiety, an early one, in 1917, and a later one, in 1926. In the early theory, libido (mental energy, often equated with sexual drive) builds up until it is discharged by some pleasurable activity. In Freud's first theory, repression causes anxiety. In psychoanalytic theory, repression is a defense mechanism that keeps unacceptable thoughts and impulses from becoming conscious. In the later theory, the relationship between them has changed: Anxiety causes repression. In this theory, anxiety acts as a signal to the ego (in Freud's theory, the rational, conscious part of the mind). This object can arouse all the emotions associated with the forbidden impulse, including the signal anxiety (Piotrowski, 2005). At the core of Freud's psychological structure is the repression of unfulfilled instinctual demands. An unconscious process, repression is accomplished through a series of defense mechanisms. Those most commonly named by Freud include denial (failure to perceive the source of anxiety) (Strickland, 2001).

Sigmund Freud hypothesized that the major function of anxiety is to signal the ego that a forbidden unconscious drive is pushing for conscious expression and to alert the ego to strengthen and marshal its defenses against the threatening instinctual force (Sadock & Sadock, 2007).

Although Freud at first proposed a physiological basis for anxiety, he later concluded that anxiety serves as a signal to the ego of the emergence of an unconscious conflict or impulse. His theory led to the development of psychoanalysis, used to study and treat emotional disorders. According to psychoanalytic theory, anxiety is seen as an emotion of the ego (the part of our mental apparatus that balances the impulses and demands of our childlike id, the stern and punitive controls of our parentlike superego, and external reality). Anxiety is also seen as the key indication of hidden psychological conflict (Goldman, 2000). Sometimes the energy cannot be discharged, for example, when the sexual object is not attainable or is morally unacceptable. This undischarged energy is anxiety and remains even when its original, unacceptable object is repressed or eliminated from conscious awareness. This anxiety may attach itself to an otherwise harmless object, resulting in a phobia (Piotrowski, 2005).

Furthermore, the situation or the object is usually one that the person can avoid; with the additional defense mechanism of avoidance, the person can escape suffering serious anxiety. The end result is that the three combined defenses (repression, displacement, and symbolization) may eliminate the anxiety. The anxiety is controlled at the cost of creating a phobic neurosis, however. Freud first discussed the theoretical formulation of phobia formation in his famous case history of "Little Hans", a 5-year-old boy who feared horses (Sadock & Sadock, 2007).

Sigmund Freud described neurotic anxiety as a danger signal. In his id-ego-superego scheme of human behavior, anxiety occurs when unconscious sexual or aggressive tendencies conflict with physical or moral limitations (Strickland, 2001).

Although psychiatrists followed Freud's thought that phobias resulted from castration anxiety, recent psychoanalytic theorists have suggested that other types of anxiety may be involved. In agoraphobia, for example, separation anxiety clearly plays a leading role, and in erythrophobia (a fear of red that can be manifested as a fear of blushing), the element of shame implies the involvement of superego anxiety. Clinical observations have led to the view that anxiety associated with phobias has a variety of sources and colorings (Sadock & Sadock, 2007)

The psychodynamic models of anxiety disorders invoke several concepts that are now often considered controversial, if not untenable. These models are nonetheless reasonably well placed within the general psychodynamic theory. The main general aspect of psychodynamic models is the proposition that neurotic anxiety occurs as a result of intrapsychic conflicts between sexual or aggressive urges and defenses erected against these urges and, more broadly, that such anxiety signals the existence of certain unconscious processes or phenomena. Therefore, the goal of psychodynamic treatment is that patients gain insight into these unconscious conflicts and resolve them, thus releasing the person from anxiety. The efficacy of psychodynamic psychotherapy for anxiety disorders has barely been studied, but it is certainly not the type of treatment that should be or could be routinely offered to patients with these conditions (Starcevic, 2005).

### **2.2.2 Behavioral theory:**

In 1920, John B. Watson wrote an article called *Conditioned Emotional Reactions*, in which he recounted his experiences with Little Albert, an infant with a fear of rats and rabbits. Unlike Sigmund Freud's case of Little Hans, who had phobic symptoms (of horses) in the natural course of his maturation, Little Albert's difficulties were the direct result of the scientific experiments of two psychologists who used techniques that had successfully induced conditioned responses in laboratory animals (Sadock & Sadock, 2007). Watson's hypothesis invoked the traditional pavlovian stimulus-response model of the conditioned reflex to account for the creation of the phobia: Anxiety is aroused by a naturally frightening stimulus that occurs in contiguity with a second inherently neutral stimulus (Sadock & Sadock, 2007).

In the classic stimulus-response theory, the conditioned stimulus gradually loses its potency to arouse a response if it is not reinforced by periodic repetition of the unconditioned stimulus. In phobias, attenuation of the response to the stimulus does not occur; the symptom may last for years without any apparent external reinforcement. Operant conditioning theory provides a model to explain this phenomenon: Anxiety is a drive that motivates the organism to do whatever it can to obviate a painful affect. In the course of its random behavior, the organism learns that certain actions enable it to avoid the anxiety-provoking stimulus. These avoidance patterns remain stable for long periods as a result of the reinforcement they receive from their capacity to diminish anxiety. This model is readily applicable to phobias in that avoidance of the anxiety-provoking object or situation plays a central part. Such avoidance behavior becomes fixed as a stable symptom because of its effectiveness in protecting the person from the phobic anxiety (Sadock & Sadock, 2007). Behavioral models are based on the learning theory and emphasize the crucial role of behaviors such as avoidance in maintaining the disorders. The latter explains the focus on behavior modification in behavior (Starcevic, 2005). Learning theory, which is particularly relevant to phobias, provides simple and intelligible explanations for many aspects of phobic symptoms. Critics contend, however, that learning theory deals mostly with surface mechanisms of symptom formation and is less useful than psychoanalytic theories in clarifying some of the complex underlying psychic processes involved (Sadock & Sadock, 2007).

The behavioral models are often criticized as simplistic, and indeed, they often do not provide a convincing account of the acquisition of fear and origin of anxiety disorders. Behavior therapy has nonetheless been the most successful psychological treatment across all the anxiety disorders, and it should be a part of any pragmatic treatment approach (Starcevic, 2005). Behavior therapy is designed to help modify and gain control over unwanted behaviors by learning to cope with difficult situations, often through controlled exposures to those situations (Strickland, 2001).

Behavioral therapists hold that anxiety is a learned response to some noxious situation or stimulus. When a situation or stimulus provokes anxiety in a person, the person learns to reduce the anxiety by avoiding the situations that provoke it. Generalized anxiety disorder may result from the unpredictability of positive and negative reinforcement the person is uncertain when and if avoidance behaviors will be effective in reducing anxiety. It is also possible to develop anxiety in response to generally positive or neutral stimuli if these are associated with a noxious or aversive stimulus. This conditioning process is held to be responsible for the avoidance of neutral or benign situations in which distressing anxiety (such as panic) has occurred. Pairing of a recurrent anxiety-inducing thought (such as "contamination") with a compulsive behavior (such as hand washing) that reduces anxiety is thought to explain the development of obsessive-compulsive disorder (Goldman, 2000).

Other influential behavioral approach to anxiety is O. Hobart Mowrer's two factor theory. It uses the principles of Pavlovian learning, in which two stimuli are presented, one after the other, and the response to the first changes because of the response automatically elicited by the second stimulus, and operant conditioning learning in which a behavior increases or decreases depending on whether the behavior is followed by reward or punishment to explain fear and phobic avoidance, respectively. Fear is acquired through Pavlovian conditioning when a neutral object or situation is paired with something painful or punishing (Piotrowski, 2005).

Many problems were found with two-factor theory, and many modifications have been made to it. Two problems will be discussed here to illustrate these changes. First, the theory predicts that people will be likely to fear things that are most often associated with pain. There are very few people in modern society, however, who are phobic of electrical sockets and end tables, even though almost everyone has received a shock from the former and stubbed a toe on the latter. On the other hand, many people are afraid of snakes and spiders, even if they have never been bitten by one. This has been explained through the concept of preparedness: Human evolutionary history has prepared people to learn that some things such as reptiles, insects, heights, darkness, and closed spaces are dangerous. These things are "easy" to learn to fear, and they account for a large proportion of phobias. On the other hand, human evolutionary ancestors had no experience with electric sockets or guns, so people today are not prepared to become phobic of these objects, even though they cause much more pain in modern society than do snakes or spiders (Piotrowski, 2005).

Two-factor theory states that in order for something to cause fear, it must be paired with a painful or punishing experience. People, however, sometimes become phobic of objects or situations with which they have never had a bad experience. Indeed, many people who have never seen a live snake are afraid of snakes.

Thus, there must be other ways in which fear is acquired (Piotrowski, 2005).

One of these is vicarious transmission: Seeing someone act afraid of something can lead to acquiring that fear. For example, whether an infant becomes afraid of being in a high place depends on whether its mother is smiling or has an expression of fear on her face. In an ingenious set of experiments, Susan Mineka and her colleagues showed that vicarious transmission of fear is influenced by preparedness. She showed that rhesus monkeys that watched a videotape of other monkeys acting afraid of a snake became afraid of snakes themselves. Monkeys that watched other monkeys act afraid of rabbits, however, did not become afraid of rabbits because they were not evolutionarily prepared to fear rabbits. Human beings also can acquire fear by being told that something is dangerous. A child can learn to avoid running in front of oncoming cars by being told not to do this by his or her parents; he or she does not have to be hit by a car or watch someone get hit in order to acquire this information (Piotrowski, 2005).

Behavioral theories posit that anxiety is a response learned either from parental behavior or through the process of classic conditioning. In a classic conditioning approach to panic disorder and agoraphobia, a noxious stimulus (e.g., a panic attack) that occurs with a neutral stimulus (e.g., a bus ride) can result in the avoidance of the neutral stimulus. Other behavioral theories posit a linkage between the sensation of minor somatic symptoms (e.g., palpitations) and generation of a panic attack. Although cognitive-behavioral theories can help explain the development of agoraphobia or an increase in the number or severity of panic

attacks, they do not explain the occurrence of the first unprovoked and unexpected panic attack that an affected patient experiences (Sadock & Sadock, 2007).

### **2.2.3 Cognitive theories of anxiety:**

Cognitive theories of anxiety illustrate how theory is applied to develop a treatment. There are many different cognitive models of anxiety, but all are similar in that they assume that there is a cognitive cause of the fear state. This cognitive step is sometimes called an irrational belief (Piotrowski, 2005). Cognitive therapy is designed to change unproductive thought patterns by learning to examine feelings and distinguish between rational and irrational thoughts.

Cognitive Therapy include a number of components, such as psychoeducation (e.g., information about the cognitive model of anxiety), cognitive restructuring, interoceptive exposure and situational exposure. Cognitive restructuring focuses on challenging patient's beliefs about the dangerousness of bodily sensations (e.g., challenging the belief that palpitations lead to heart attacks) (Kay & Tasman, 2006).

Cognitive models of anxiety disorders emphasize the role of specific beliefs and appraisals of threat and of one's ability to cope. These models are becoming increasingly popular, perhaps because they attempt to give a fairly comprehensive account of anxiety disorders and seem credible in doing so. However, cognitive models have generally not been sufficiently tested, and the treatment based on them has yet to demonstrate whether it is as efficacious as behavior therapy. The attractiveness of cognitive models and cognitive therapy also lies in their radical dismantling of the psychological mechanisms in anxiety disorders and in their proposition that therapeutic change should occur as a result of changes in the more fundamental patterns of thinking. At the same time, this ambitious proposition may be the reason why cognitive therapy seems less pragmatic and perhaps less applicable to all patients with anxiety disorders (Starcevic, 2005).

### **2.2.4 Physiological theories:**

There are many physiological theories about anxiety, which they differ with respect to the brain areas, pathways, or chemicals implicated in anxiety. Anxiety is a complex state, involving multiple interacting parts of the nervous system, and it will take much additional research to develop a complete model of the brain's role in anxiety (Piotrowski, 2005)

When compared with normal controls, patients with anxiety disorders have significantly different physiological functioning (e.g., higher heart rate, higher blood lactate levels, and greater oxygen debt during moderate exercise) (Goldman, 2000).

One physiological variable that has been integrated into many theories of anxiety is the panic attack. This is a sudden and usually short-lived attack that includes trouble with breathing, heart palpitations, dizziness, sweating, and fear of dying or going crazy. These attacks appear purely physiological in that they seem to come "out of the blue" at first; however, psychological factors determine whether they progress into a full-blown disorder. People can become anxious about having panic attacks, and this added anxiety leads to more attacks, producing panic disorder. Some people become afraid of having an attack in a place where they will be unable to cope or receive help. These people may progressively avoid more and more places. This is

known as agoraphobia, which at its worst can result in people who are afraid to leave their homes (Piotrowski, 2005).

However the other opinion there were no biological model has proved to be unique for any particular type of anxiety disorder, although some models may be relatively more specific for some anxiety disorders. In addition, various biological mechanisms may operate in the same anxiety disorder (Starcevic, 2005). The development of physiological theories also illustrates an important point in the relationship between theory and therapy. Thus far, it has been stressed that theories of anxiety help determine treatment. This relationship also works in reverse: Success or failure of treatments adds information used in theory development. This is most clear in physiological theories. For example, the physiological mechanisms of different types of anxiety-reducing tranquilizers have been investigated to provide clues as to how the brain is involved in anxiety (Piotrowski, 2005).

In addition; there were several studies which examined the role of genetic factors in the etiology of anxiety disorders. They include family studies (studies of the first-degree relatives of probands with a particular anxiety disorder), twin studies, and, more recently, genetic linkage studies. No adoption studies of anxiety disorders have been reported. Family studies have been most commonly conducted, with findings of increased rates of specific anxiety disorders in first-degree relatives of probands with the same anxiety disorders being interpreted as a sign of possible genetic transmission. Such findings may also reflect influence of the shared environment on family members. Genetic studies generally suggest that there may be a genetic predisposition for some anxiety disorders in certain patients. It is not yet known, however, what this predisposition entails and what is inherited (Starcevic, 2005).

Studies of twins indicate some genetic control of normal human fear from infancy onwards, of anxiety as a symptom and as a syndrome, and of phobic and obsessive-compulsive phenomena. Anxiety disorders are more common among the relatives of affected probands than of controls, especially among female and first-degree relatives; alcoholism and secondary depression may also be overrepresented. Familial influences have been found for panic disorder, agoraphobia, and obsessive-compulsive problems. Panic disorder in depressed probands increases the risk to their relatives of phobia as well as of panic disorder, major depression, and alcoholism. The strongest family history of all anxiety disorders is seen in blood-injury phobia; even though it can be successfully treated by exposure, its roots may lie in a genetically determined specific autonomic susceptibility. Some genetic effects can be modified by environmental means (Goldman, 2000).

## **2.3 Mental health problems among childbearing age women**

In this category the researcher will offer many studies about mental health problems among childbearing age women, specially depression and anxiety, which are viewed in three parts; the first, is about depression, the second is about anxiety, where the third part is about depression and anxiety among childbearing age women.

Finally there is an presentation of discussion and comments about these studies.

### **2.3.1 Studies of depression among childbearing age women**

Study by Barnett et al. (1996) aim to assess prospectively the incidence and course of depressive symptoms among pregnant and postpartum adolescents and explore the roles of stress and social support as influencing factors. Pregnant teenagers attending a comprehensive adolescent pregnancy and parenting program were enrolled during their third trimester of pregnancy and followed up through 4 months post partum. Depressive symptoms and social support were measured with validated, self-administered instruments during the third trimester and at 2 and 4 months post partum. Stress was measured during the prenatal and postpartum periods. Study participants (N=125) were predominantly black (93%), and aged 12 to 18 years. Completed assessments were obtained from 114 subjects at 2 months post partum and 108 at 4 months. 42% had significant depressive symptoms in the third trimester, with 36% and 32% having scores that indicated depression at 2 and 4 months post partum. Stress levels increased significantly from the third trimester to the postpartum period and were positively associated with depressive symptoms.

Where the study of Bergant et al. (1998) aimed at detect the prevalence and influencing factors of early postpartal depressive disorders in a large hospital sample. By means of an interview the study acquired information on sociodemographic data, physical and psychiatric anamnesis, obstetric and psychological variables. The German version of the Edinburgh Postnatal Depression Scale (EPDS) served to determine the depressive disorder in the sample participants. The interview was carried out on 1250 women at the maternity ward 5 days after delivery. According to the results of the German validation of the EPDS, 254 (20.3%) women at the maternity ward had at least mild depressive disorder. A comparison between nondepressed women (N = 996, 79.7%) and depressed women (N = 254, 20.3%) revealed the following risk factors for the development of an early postpartum depressive disorder: higher subjective burden of childbirth, higher trait anxiety, poorer couple compatibility, lower job satisfaction and lower social status.

In addition, the study of Bergant et al. (1999) aimed to detect incidence and influencing factors on early postnatal depressive mood in a large hospital sample. By means of an interview the study acquired information on sociodemographic data, physical and psychiatric anamnesis, and obstetric and psychologic variables. The Edinburgh Postnatal Depression Scale (EPDS) served to determine the depressive mood of the sample subjects. The interview was carried out on 1250 women at two postnatal wards 5 days after delivery. According to the results of the German validation of the EPDS, where a cutoff of 9/10 indicates at least mild depressive disorder, the whole sample was divided into group A (EPDS score  $\leq$  9; N = 996, 79.7%) and group B (EPDS score  $\geq$  10; N = 254, 20.3%). Early postnatal depressive mood, as assessed by the EPDS, appeared with 20% of all women taking part in the study investigation on the fifth postnatal day. Subjective measurements such as high childbirth burden, elevated trait anxiety, low life satisfaction and lower social class, and low birth weight of the infant seem to be of predominant relevance for early postnatal depressive mood.

In the same field the study by Evans et al. (2001) aimed to follow mothers' mood through pregnancy and after childbirth and compare reported symptoms of depression at each stage. The study used longitudinal cohort study. Pregnant women resident within Avon with an expected date of delivery between 1991 and 1992. Main outcome measures: Symptom scores from the Edinburgh postnatal depression scale at 18 and

32 weeks of pregnancy and 8 weeks and 8 months postpartum. Proportion of women above a threshold indicating probable depressive disorder. Results: Depression scores were higher at 32 weeks of pregnancy than 8 weeks postpartum. There was no difference in the distribution of total scores or scores for individual items at the four time points. 1222 (13.5%) women scored above threshold for probable depression at 32 weeks of pregnancy, 821 (9.1%) at 8 weeks postpartum, and 147 (1.6%) throughout. More mothers moved above the threshold for depression between 18 weeks and 32 weeks of pregnancy than between 32 weeks of pregnancy and 8 weeks postpartum.

Sammour (2002) Aimed to evaluate the prevalence of postpartum depression and to illustrate the psychosocial risk factors of postpartum depression in the Gaza Strip- Palestine. Among 364 mother got birth at the Gaza Strip in Palestine at 2001-2002 was assessed in the Gaza strip in maternal care centers and obstetric hospitals in Palestine. All subjects were assessed during first month in postpartum period using self-report questionnaire for parental stressors, physical, psychosocial, and political violence factors and Edinburgh Postnatal Depression scale (EPDS), in which scores of 13 or more are considered to signal depression. Results showed that prevalence rate of postpartum depression was 69% .

The study of Small et al. (2003) about cross-cultural experiences of maternal depression: associations and contributing factors for Vietnamese, Turkish and Filipino immigrant women in Victoria, Australia. The study found that there were no consistent associations found with family income or maternal education, method of delivery and a range of other birth events, or women's views about maternity care. The issues most commonly identified by women in this study as contributing to depression are similar to those found previously for Australian-born women: isolation (in this study, including being homesick) 29%; lack of support and marital issues 25%; physical ill-health and exhaustion 23%; family problems 19%, and baby-related issues 17%. There were some differences in the importance of these among the three country of birth groups, but all except family issues were in the top four contributing factors mentioned by women in all groups.

However, Rahman et al. (2003) study life events, social support and depression in childbirth: perspectives from a rural community in the developing world. All women living in southern Kahuta, Pakistan, in their third trimester of pregnancy were interviewed at 6 weeks before delivery (N = 632) and again at 10-12 weeks after delivery (N = 541), using WHO Schedule for Clinical Assessment in Neuropsychiatry (SCAN), Personal Information Questionnaire (PIQ) and Brief Disability Questionnaire (BDQ). The point prevalence of ICD-10 depressive disorder was 25% in the antenatal period and 28% in the post-natal period. Depressed mothers were significantly more disabled, had more threatening life events, and poorer social and family support than non-depressed mothers. Vulnerable mothers were more likely to be depressed during pregnancy, rather than have an onset in the post-natal period.

Where Templeton et al. (2003) aimed to describe the experiences of women suffering from postnatal depression in black and minority ethnic communities in Wiltshire, UK. Semi-structured interviews and focus groups with women across Wiltshire with current and past experience of postnatal depression. EPDS data are

also reported. Qualitative data (via telephone and face-to-face interviews) were also collected from health visitors who worked with these women. Qualitative analysis identified four main themes that were part of the experience of postnatal depression for the women and the primary health care professionals in contact with them issues specific to pregnancy and birth (including postnatal depression), issues specific to primary health care, issues relating to culture, and 'other' issues. This latter theme describes the multitude of problems that many of the women endured, e.g. family/marital problems, violence, drinking alcohol, bereavement, financial difficulties, unemployment, accommodation and (racial) harassment.

Study of Heh et al. (2004) about the association between depressive symptoms and social support in Taiwanese women during the month. The purpose of the study was to explore the association between depressive symptoms and social support in Taiwanese women doing the month. A correlational survey design using the Postpartum Social Support Questionnaire (PSSQ) and the Edinburgh Postnatal Depression Scale (EPDS) to measure social support and postnatal depressive symptomatology was employed. 168 Taiwanese postpartum women concluded that the ritual of doing the month provides valuable social support and may help to prevent postnatal depression in Taiwanese women.

The study of Denni (2004) try to answer the following question "Can we identify mothers at risk for postpartum depression in the immediate postpartum period using the Edinburgh Postnatal Depression Scale?". A population-based sample of 594 mothers completed the Edinburgh Postnatal Depression Scale (EPDS) at 1, 4 and 8 weeks postpartum. The sensitivity, specificity and predictive power of the 1-week EPDS in relation to identifying mothers with elevated EPDS scores at 4 and 8 weeks was determined. The predictive power of the 1-week EPDS was further assessed using odds ratios and receiver operator characteristic curves. At 1 week postpartum, 29.5% of mothers scored >9 on the EPDS, decreasing to 23% at 4 weeks and 20.5% at 8 weeks. Using the cut-off score of 9/10, the 1-week EPDS accurately classified 85.4% mothers at 4 weeks and 82.5% mothers at 8 weeks with or without postpartum depression symptomatology. The 1-week depression was significantly correlated to the 4-week ( $r=0.72$ ,  $P<0.001$ ) and 8-week ( $r=0.65$ ,  $P<0.001$ ).

The study of Felice et al. (2004) about prevalence rates and psychosocial characteristics associated with depression in pregnancy and postpartum in Maltese women. A random sample of 239 pregnant women were interviewed at booking using a detailed socio-demographic history, the revised version of the clinical interview schedule (CIS-R) and Maltese translation of the Edinburgh postnatal depression scale (EPDS). The clinical interview schedule was again administered over the phone at 36 weeks and the EPDS sent by post. At 8 weeks postpartum, the CIS-R, modified version of the social maladjustment schedule and the EPDS were again administered to 95.8% of women. The point prevalence of depression meeting ICD-10 research criteria was 15.5% at booking, 11.1% in the third trimester and 8.7% postpartum of which only 3.9% had an onset since delivery.

The study of Dennis and Creedy (2004) about psychosocial and psychological interventions for preventing postpartum depression. The aim of the study to assess the effect of diverse psychosocial and psychological

interventions compared with usual antepartum, intrapartum, or postpartum care to reduce the risk of developing postpartum depression. Both reviewers participated in the evaluation of methodological quality and data extraction. Additional information was sought from several trial researchers. Results are presented using relative risk for categorical data and weighted mean difference for continuous data. Fifteen trials, involving over 7600 women. Interventions with only a postnatal component appeared to be more beneficial (relative risk 0.76) than interventions that also incorporated an antenatal component. While individually-based interventions may be more effective (relative risk 0.76) than those that are group-based, women who received multiple-contact intervention were just as likely to experience postpartum depression as those who received a single-contact intervention.

Where Teissedre and Chabrol (2004) aims to evaluate the postpartum depression predictive value at 3 days postpartum and to determine a cut-off score for major depression. The EPDS was presented to 859 mothers (mean age=30.3; SD=4.5) met at one of the clinics at 3 days postpartum (period 1). Factor analyses found that, the first factor F1 "anxiety" accounts 28% of the variance and the second factor F2 "depression" accounts 20% of the variance. Between 4 and 6 weeks postpartum, factor analysis suggests an unidimensional model in the evaluation of postpartum depression which is better than a two factor model. This factor accounts 40% of the variance. This result shows that the depressive mothers mood intensity predicts a future depressive risk. In conclusion, this scale demonstrates good validity and is fast and easy use in obstetrical services, allowing early detection of women who risk to develop postpartum depression and, in the first week of postpartum, of mothers who suffer from a major postpartum depression. The use of the EPDS for an early screening of the risk of postnatal depression which is essential considering the consequences that postnatal depression can have on the development of the infant, on the quality of the relationship within the couple and on other social relationships. Mothers at risk for postnatal depression should be controlled and surveyed by the health professionals in obstetrical clinics.

In addition, the study by Rubertsson et al. (2005) was about depressive symptoms in early pregnancy, 2 months and one year postpartum-prevalence and psychosocial risk factors in a national Swedish sample. All Swedish speaking women attending their first antenatal care visit during 3 predestined weeks were invited to participate. Depressive symptoms were evaluated using the Edinburgh Postnatal Depression Scale (EPDS) in early pregnancy, two months and one year postpartum. In all, 2430 women completed three questionnaires. A dose-effect relation was found between the numbers of stressful life events experienced in the year prior to pregnancy and mean EPDS score in pregnancy. The prevalence of recurrent or sustained depressive symptoms (EPDS > or =12 on all three evaluations) was 3% (79/2430). Three factors were associated with

depressive symptoms, two or more stressful life events in the year prior to pregnancy, native language other than Swedish and unemployment.

Agoub et al. (2005) The aimed to determine the prevalence and factors associated with post-partum depression among Moroccan mothers. 144 mothers were interviewed at 2 and 6 weeks, and at 6 and 9 months after delivery. Depressive disorder was significantly associated with pregnancy complications, stressful life events during pregnancy, baby's health problems, and poor marital relationship. The subsequent point prevalence were 6.9%, 11.8% and 5.6% respectively at 6 weeks, 6 and 9 months. Postnatal visits were effective in the identification of Moroccan depressed mothers.

However, the study of Lovisi et al. (2005) about Poverty, violence and depression during pregnancy: a survey of mothers attending a public hospital in Brazil. A cross-sectional survey of women in the third trimester of pregnancy attending a public hospital maternity clinic from August 2003 to July 2004 in Rio de Janeiro. Participants were interviewed about their sociodemographic status, obstetric and medical conditions, substance use, stressful life events, and social support. Depression was diagnosed through the Composite International Diagnostic Interview (CIDI). A total of 230 of 240 eligible women consented to participate. The 12-month prevalence of depression was 19.1%. On multivariate analyses, having been educated beyond primary school was protective (OR= 0.5). Risk factors were: being divorced or widowed (OR= 4.9); a history of depression before pregnancy (OR= 7.9); loss of an intimate relationship (OR= 8.4), experienced financial difficulties (OR= 6.6) and having been exposed to violence in the previous year (OR= 4.2).

In the same side, Rich-Edwards et al. (2006) investigate whether race/ethnicity, age, finances, and partnership status were associated with antenatal and postpartum depressive symptoms. 1662 participants in Project Viva, a US cohort study. Mothers indicated mid-pregnancy and six month postpartum depressive symptoms on the Edinburgh postpartum depression scale (EPDS). The prevalence of depressive symptoms was 9% at mid-pregnancy and 8% postpartum. These associations were explained by lower income, financial hardship, and higher incidence of poor pregnancy outcome among minority women. Young maternal age was associated with greater risk of antenatal and postpartum depressive symptoms, largely attributable to the prevalence of financial hardship, unwanted pregnancy, and lack of a partner.

While, the study by Adewuya et al. (2006) about the prevalence and correlates of depression in late pregnancy among Nigerian women. The objectives of this study were to estimate the prevalence of depressive disorder in late pregnancy in a group of Nigerian women and to examine the associated factors. 180 women in late pregnancy completed a questionnaire on sociodemographic and obstetrical details. They also completed the Edinburgh Postnatal Depression Scale (EPDS). The factors independently associated with depression included being single, divorced and perceived lack of social support. Depression is common in late pregnancy among Nigerian women, with the significant correlates including mainly social and family factors. Such factors should be considered when planning health care services or formulating a predictive model. Interventions aimed at reducing the occurrence of antenatal depression need further research.

In addition, Limlomwongse et al. (2006) aimed to identify depressive moods as measured by the Edinburgh Postnatal Depression Scale in late pregnancy and postpartum, explore associated factors and assess changes in depressive moods. A cohort study of 610 pregnant Thai women was conducted. The self-reporting EPDS was completed at 36-40 weeks and at 6-8 weeks postpartum. The prevalence of depressive moods (scores of 10 or more on the EPDS) was 20.5% during pregnancy and 16.8% at postpartum. Factors related to depressive moods in late pregnancy included marital status, evidence of irritable moods before menstruation, and attitudes towards this pregnancy. Women who perceived of having complications during pregnancy, those who had irritable moods before menstruation or had negative attitudes towards this pregnancy had also double risk. The depressive moods were significantly reduced postnatal.

The study of Husain et al. (2006) about prevalence and social correlates of postnatal depression in a low income country. Population-based survey of 149 women at 12 weeks postnatal using the Edinburgh Postnatal Depression Scale (EPDS), Multidimensional Scale of Perceived Social Support (MSPSS) and Personal Information Questionnaire (PIQ). 36% women scored  $\geq 12$  on EPDS. High depression score was associated with lower social support, increased stressful life events in the preceding year and higher levels of psychological distress in the antenatal period.

Also, the study of Muhammad Gadit and Mugford (2007) aims to exploring the prevalence of depression among households in three capital cities of Pakistan. A sample of  $N=820$  was randomly selected, and a cross sectional telephone-based study was conducted for a duration of six months by using depression self rating questionnaire. It was found that there was a regional variation in prevalence rates for depression among the three cities. Lahore city had the highest number of depressives (53.4%), as compared to Quetta (43.9%) and Karachi (35.7%). Middle age, female gender and secondary school level of education were significantly associated with depression among the study group.

The study of Josefsson et al. (2007) aimed to investigate the prevalence of depressive symptoms and self reported health of women who have shown previous postpartum depressive symptoms, and to examine the behavior of four-year-old children born to mothers affected by postpartum depression. in this Longitudinal study. The index group ( $n = 251$ ) constituted of all women with postpartum depressive symptoms on the Edinburgh Postnatal Depression Scale (EPDS), in a population-based study made in the late 1990s. The control group ( $n = 502$ ) consisted of women without postpartum depressive symptoms on the EPDS at the same occasion. Results: Women with a history of postpartum depressive symptoms were approximately 6 times more likely to have recurrent depressive symptoms, compared to those without postpartum depressive symptoms, and they were also more likely to experience physical and mental illness. Although postpartum depressive symptoms in the mothers were involved in explaining the likelihood of behavioral problems in their four-year-old children, mothers with current depressive symptoms were the most likely to have a child with behavioral problems.

Scocco et al. (2008) found that the lifetime prevalence of suicide ideation, plans, and attempts was 3.0%, 0.7%, and 0.5%, respectively among adults. Risk factors for lifetime suicide-related phenomena were female sex, younger cohort, fewer years of education, and earlier onset age of suicide ideation.

### **2.3.2 Studies of anxiety among childbearing age women**

The study of Altshuler et al. (1998) about course of mood and anxiety disorders during pregnancy and the postpartum period. Because the onset of mood and anxiety disorders often occurs during the childbearing years, many women may be taking psychotropic medications for these disorders when they conceive. These medications easily diffuse across the placenta, and their impact on the fetus is of concern. But discontinuation may lead to relapse, in which case psychiatric symptoms may affect the fetus. Thoughtful treatment planning presents a dilemma to the clinician. Limited data suggest heightened vulnerability to relapse of mood and anxiety disorders in women during the postpartum period. Pregnancy appears to exacerbate symptoms of obsessive-compulsive disorder, while panic disorder patients may remain well after discontinuing medication. Future studies should address the prevalence and relapse rates of mood and anxiety disorders, particularly after medication discontinuation, among pregnant women.

Affonso et al. (1999) study worry: conceptual dimensions and prevalence to childbearing women. Worry is a cognitive activity that can be a behavioral expression to better understand how a person is coping and will adapt to his or her situation. The content and expression of worries are influenced by characteristics, such as personality, coping styles, cultural orientation, and social environment. Women experience multiple worries during the childbearing period, such as how pregnancy affects one's body image, whether the baby will be normal and healthy, how being pregnant affects the relationship with spouse/mate, whether to continue employment during or after pregnancy, and uncertainties about adequate finances to support the new or growing family. In this article we present the conceptual dimensions of worries with application to women's childbearing adaptation. Implications for development of research studies and the design of clinical practice strategies are identified.

The study of Wenzel et al. (2003) about prevalence of generalized anxiety at eight weeks postpartum. This study investigated the prevalence and nature of generalized anxiety symptoms in women who were eight weeks postpartum. A community-based sample of 68 postpartum women completed an interview assessing generalized anxiety disorder and depression and a self-report measure of worry associated with concerns relevant to postpartum women. The main results: Three women (4.4%) met DSM-IV criteria for generalized anxiety disorder, and an additional 19 women (27.9%) endorsed subsyndromal difficulties with generalized anxiety. Approximately one third of these women endorsed symptoms of depression. In contrast, only two women met criteria for major depressive disorder.

In the study of McLachlan and Waldenstrom (2005) 100 Vietnamese-born and 100 Turkish-born women were compared with 100 Australian-born women who gave birth in the same metropolitan hospital during the same time period. Only women who had a normal vaginal birth and gave birth to a healthy baby were

included. They were interviewed between 24 hours after the birth and hospital discharge. Vietnamese women used less pain relief, reported more pain, and described childbirth overall more negatively than Australian women, while also reporting less anxiety, more confidence, and less panic during labor. Turkish women's responses were more similar to those of Australian women, but they were slightly more satisfied with childbirth overall despite recollecting more pain, and were also more likely to perceive time normally. Turkish women used a similar amount of pharmacological pain relief as Australian women, but used more relaxation and breathing techniques.

In addition, Miller et al. (2006) about anxiety and stress in the postpartum. As part of a larger cross-sectional study, the EPDS and DASS-21 questionnaires were administered to a convenience sample of 325 primiparous mothers, who ranged in age from 18 to 44 years ( $M = 32$  years). Recruited through mother's groups and health centers in Melbourne Australia, inclusion was limited to mothers whose babies were aged between 6 weeks and 6 months. Analyses included comparisons between the classifications of women according to the EPDS and the DASS-21, and an exploration of the extent to which the EPDS identified anxious-depressed women. The EPDS identified 80 women (25%) as possibly depressed (using a cut-off of over 9), of which the DASS-21 corroborated 58%. In the total sample, 61 women (19%) were classified by the DASS-21 to be depressed. Using broader criteria for distress, it was revealed by the DASS-21 that a further 33 women (10%) showed symptoms of anxiety and stress without depression. A total of 41 women (13%) had symptoms of anxiety either in isolation or in combination with depression. The DASS-21 identified 7% of the sample as being both anxious and depressed. This at-risk sub-group had higher mean EPDS and DASS-depression scores than their depressed-only counterparts.

Ross & McLean (2006) study about Anxiety disorders during pregnancy and the postpartum period: A systematic review. The postpartum period is recognized as a time of vulnerability to affective disorders, particularly postpartum depression. In contrast, the prevalence and clinical presentation of anxiety disorders during pregnancy and the postpartum period have received little research attention. Anxiety disorders are common during the perinatal period, with reported rates of obsessive-compulsive disorder and generalized anxiety disorder being higher in postpartum women than in the general population. The perinatal context of anxiety disorders presents unique issues for detection and management.

While, Barrett and Robbins (2007) aimed to examine associations of three sources of women's aging anxiety-declining attractiveness, health, and fertility-with social contexts of their lives, including locations in systems of inequality, connections to institutions, relationships, and health. They also explore links between aging anxieties and distress. Employing data from the National Survey of Midlife Development in the United States conducted in 1995-1996, the authors use logistic and OLS regression. The study found that Anxiety about health is greater among women who are younger, less financially independent, and have worse relationships and health. Anxiety about fertility is higher among younger, more educated, more financially independent, and childless women.

In the end of the axis of anxiety studies, Austin et al. (2007) sought to determine whether ethnic differences exist in the relationship between the predisposing and enabling domains of the Gelberg-Andersen Behavioral Model for Vulnerable Populations and mental distress. 821 homeless women were selected in the Los Angeles area using a representative probability sampling design and invited them to participate in face-to-face interviews. The sample was 67% African American, 17% Hispanic, and 16% White. The study found that married was associated with greater distress among African American and White women, and experiencing competing needs was predictive of distress for African Americans and Hispanics.

### **2.3.3 Studies of Depression and Anxiety among childbearing age women:**

In the third section; the researcher will exposed the studies about depression and anxiety among childbearing age women, as the following:

The study of Abas and Broadhead (1997) On 172 women randomly selected from a Zimbabwean township were interviewed with a Shona screen for mental disorders and a semi-structured interview to assess symptoms suggestive of emotional distress, followed by the Present State Examination. 30.8% of women had a depressive or anxiety disorder during the previous year. Nearly all disorders met Bedford College criteria for depression; 65% of these also had anxiety features. Only 0.6% of women had a 'pure' anxiety disorder not preceded by or associated with depression in the study year. Compared with London, the higher annual prevalence of disorders in Harare could mostly be accounted for by an excess of onset cases in the study year, 70% of which made a full or partial recovery within 12 months. The women's own words for these episodes included 'thinking too much', 'deep sadness' and a variety of terms describing heart discomfort, interpretation showing many of the latter to be expressions for grief, fear, or the possession of an insoluble problem.

The study of Erickson et al. (1998) about depression and anxiety among Cambodian refugee women in France and the United state, This study reports on Cambodian refugee data related to signs symptomatic of depression and anxiety, the tendency to worry or ruminate over past events (a culture-bound syndrome called "Khouchrang"), and differences that might be influenced by social system and cultural practice. A sample consisting of 155 women of Cambodian national origin were interviewed in their homes in the USA and France. Answers to the research questions were collected by a focused interview to elicit demographic information, and the Hopkins Symptom Checklist (HSCL) in the Cambodian language to elicit depression and anxiety scores. Women residing in France (87%) were significantly more likely to show signs symptomatic of depression than women residing in the USA (65%). Women in the study reported about three times as much depression as the average American woman. Large numbers of women residing in both countries were symptomatic of anxiety (82% on average). Both groups experienced extreme symptoms of the culture-bound syndrome, "Khouchrang," and appeared to be strongly influenced by the different social systems of the two countries.

In addition Stuart et al. (1998) study postpartum anxiety and depression: onset and co-morbidity in a community sample. A community-based sample of 107 women completed the Beck Anxiety Inventory, Beck Depression Inventory, State-Trait Anxiety Inventory, and Edinburgh Postnatal Depression Scale at 14 weeks postpartum and at 30 weeks postpartum. The point prevalence of anxiety was 8.7% at 14 weeks and 16.8% at 30 weeks postpartum. The point prevalence of depression was 23.3% at 14 weeks and 18.7% at 30 weeks postpartum. The Edinburgh Postnatal Depression Scale was found to have a strong correlation with the State Anxiety Scale of the State-Trait Anxiety Inventory ( $r = 0.73$  at 14 weeks,  $r = 0.82$  at 30 weeks).

While the study Olfson et al. (2000) aimed to determine the prevalence of major mental disorders in a primary care practice that serves a predominantly low-income immigrant patient population. Cross-sectional survey, Systematic sample of consecutive adult patients with scheduled appointments. Of 1266 approached eligible patients, 1007 (80%) participated. PRIME-MD Patient Health Questionnaire major depression, generalized anxiety disorder, panic disorder, alcohol use disorder, and suicidal ideation; drug use disorder; functional status; work loss; family distress; and mental health treatment. Results showed that major depression (18.9%), generalized anxiety (14.8%), panic (8.3%), and substance use (7.9%) disorders and suicidal ideation (7.1%) were highly prevalent. Many patients had more than 1 disorder range, 36.3% (substance use disorder) to 76.9% (panic disorder). In multivariate analyses, each disorder was significantly associated with an increase in impairment after controlling for demographic characteristics, perceived health, and the other disorders. A minority of patients with each disorder range, 22.5% (substance use disorder) to 46.4% (panic disorder) reported receiving mental health treatment in the last month.

Where Greco and Zajecka (2000) studying evaluating and treating co-morbid depression and anxiety in women. The study said patients with co-morbid depression and anxiety are more debilitated than are patients with either condition alone. Diagnosis can be established by gathering a thorough symptomatic history, obtaining a full reproductive history, performing a comprehensive mental-status examination, and including a full differential diagnosis. It is important to determine the type of anxiety disorder (e.g., generalized anxiety disorder, panic disorder, obsessive compulsive disorder) because it will determine treatment. Patients may benefit from pharmacotherapy and cognitive behavioral therapy.

The study of Dayan et al. (2002) aimed to investigate the effects of antenatal anxiety and depression on spontaneous preterm labor. A consecutive series of 634 pregnant women with singleton pregnancies was included. Anxiety and depression were assessed using self-administered questionnaires: Spielberger's State-Trait Anxiety Inventory and the Edinburgh depression scale. Depression scores were dichotomized with a cutoff value suggestive of major depression. The 75th percentile was used for anxiety scores. A logistic regression analysis, controlling for sociodemographic and biomedical factors and including interaction terms, revealed that depression was positively associated with the outcome among underweight women, defined as women with a pre-pregnancy body mass index below 19 (adjusted odds ratio = 6.9). A similar result was observed for trait anxiety in women with a history of preterm labor (adjusted odds ratio = 4.8). The association was close to significance for state anxiety in women with vaginal bleeding (adjusted odds ratio = 3.6). These findings show that anxiety and depression, when combined with specific biomedical factors, are

associated with spontaneous preterm labor. A synergic action of psychological and biomedical factors on the secretion of placental corticotropin-releasing factor is hypothesized.

Journal of Pakistan Medical Association (2002) aimed to study the prevalence of, and factors associated with anxiety and depression among women. A cross sectional survey from a lower middle class semi-urban community of Karachi, Pakistan. A total of 1218 women between the ages of 18-50 years. Systematically every third household was identified from which a woman was randomly selected. The Aga Khan University Anxiety and Depression Scale and a socio-demographic questionnaire were administered verbally by trained interviewers for assessing the prevalence of, and associated factors for anxiety and depression. Results: A prevalence of 30% was found. Increasing age, lack of education and verbal abuse were the associated factors found to have an independent relationship.

The study of Afana et al. (2003) The Assessment of mental disorders in primary health care clinics in the Gaza Strip. Objective of the present study was to investigate the prevalence of mental health problems among patients attending primary health care clinics in the Gaza Strip. Method: 661 randomly selected primary health care patients from the five regions were surveyed using the HSCL-25. Results showed that 73% of patients visiting primary care clinics in the Gaza Strip had psychiatric symptoms consistent with psychiatric disorders. The prevalence of mental health problems among females was higher (76.8%) than males (67%). Previously married and single patients reported more distressing symptoms than married people. The results also revealed that the prevalence of mental health problems was higher among patients living in refugee camps. Civic status was not associated with mental health problems.

In addition, Heron et al. (2004) about the course of anxiety and depression through pregnancy and the postpartum in a community sample. Self-reported anxiety and depression were assessed at 18 and 32 weeks gestation and 8 weeks and 8 months postnatally in a prospective longitudinal study of a community sample of women in England (N=8323). The majority of cases of postnatal depression were preceded by antenatal depression; similarly, postnatal anxiety was preceded by antenatal anxiety. Despite the stability of anxiety and depression across this period, there was a mean decrease in both anxiety and depression. Finally, antenatal anxiety predicted postnatal depression at 8 weeks and 8 months, even after controlling for antenatal depression. Limitations: Data were based on self-report only and there was evidence of selective attrition.

The study of Chen et al. (2004) about prevalence of depressive and anxiety disorders in an assisted reproductive technique clinic. In this study all consecutive women visiting the assisted reproduction clinic of a university-affiliated medical centre, with the intention of starting a new assisted reproduction treatment course, were recruited. A psychiatrist made a diagnosis of psychiatric disorders using a structured interview, the Mini-International Neuropsychiatric Interview (MINI). Of a total of 112 participants, 40.2% had a psychiatric disorder. The most common diagnosis was generalized anxiety disorder (23.2%), followed by major depressive disorder (17.0%), and dysthymic disorder (9.8%). Participants with a psychiatric morbidity did not differ from those without in terms of age, education, income, or years of infertility. Women with a history of previous assisted reproduction treatment did not differ from those without in depression or anxiety.

Borjesson et al. (2005) Aimed to examine the prevalence of personality disorders (PDs) and elucidate the importance of personality disorders, socio-demographics and health-related factors for the development of psychiatric symptoms in primiparous women. 625 primiparous women were assessed during pregnancy, three and 18 months following delivery. The Symptom Checklist-90 (SCL-90), the modified SCID-screen questionnaire and the Global Assessment of Functioning Scale (GAF) were used. Results: The prevalence of personality disorders was 6.4%. personality disorder was strongly associated with psychiatric symptoms during and after pregnancy. The most important factor predicting long-lasting mental problems was having a personality disorder. A higher level of psychiatric symptoms was found in pregnancy than postpartum. Psychiatric caseness during pregnancy was strongly associated with caseness postpartum. In addition, socio-economic status, younger age and previous treatment for mental problems were identified as risk factors.

The study of Daradkeh et al. (2006) about The rate of psychiatric morbidity and its socio-demographic correlates was estimated in 2000 women at childbearing age attending 3 primary care centres in Irbid, Jordan. Women completed standardized diagnostic tools that yielded psychiatric diagnoses, a stress scale and socio-demographic details. The rate of psychiatric morbidity was 26.3% and psychological distress 39.0%. A significant association was found between the amount and severity of stress and psychiatric morbidity. Post-marital status (separated, divorced, widowed), woman's illiteracy, family violence, violent marital relationship, living independently, being in a non-cousin marriage, being a second wife, poor housing and absence of a social support system were significantly associated with psychiatric morbidity in this group of women.

The study of Liselott et al. (2006) about depression and anxiety during pregnancy and 6 months postpartum: a follow-up study. The study Aimed to investigate the relationship between antenatal and postpartum depression and anxiety and to explore associated maternal characteristics. From a population-based sample of 1,555 women attending two obstetric clinics in Sweden, all women with an antenatal psychiatric diagnosis (N= 220) and a random selection of healthy women (N =500) were contacted for a second assessment three to six months postpartum. The Primary Care Evaluation of Mental Disorders was used for evaluation on both occasions. Results. Fewer cases of depressive and/or anxiety disorders were prevalent postpartum compared with the second trimester screening. Depression and/or anxiety were prevalent in 16.5% of postpartum women versus 29.2% of pregnant women. There was a significant shift from a majority of sub-threshold diagnoses during pregnancy to full Diagnostic and Statistical Manual of Mental Disorders (Fourth Edition) diagnoses during the postpartum period. A history of previous psychiatric disorder, living single, and obesity were significantly associated with a new-onset postpartum psychiatric disorder. The absence of a previous psychiatric disorder was significantly associated with a postpartum recovery of depression or anxiety.

Conclusions. Depression and anxiety appear to be less common postpartum than during pregnancy.

The study of Cury and Menezes (2007) estimate the prevalence and risk factors for antenatal anxiety and antenatal depression. A cross sectional study of 432 women attending a private clinic in the city of Osasco, São Paulo, from 1998 to 2002. The following instruments were used: spielberger state-trait anxiety inventory

(STAI), Beck depression inventory (BDI), and a questionnaire for socio-demographic and obstetric data. The prevalence of antenatal anxiety, state and trait were 59.5% and 45.3%, respectively. The prevalence of antenatal depression was 19.6%. Antenatal anxiety -trait, antenatal anxiety-state and antenatal depression were associated with lower women's educational level, and with not being married. Antenatal anxiety-trait was associated with lower women's income, while antenatal depression was associated with lower couple's income.

Toney (2007) aimed to provide an overview of a case study of a 24-month, managed care, depression care management program that incorporated a bilayered approach to optimize patient outcomes. Patients being treated for depression by a primary care physician (PCP) were assigned a care coach who provided educational and goal-setting training by telephone. Psychiatric medical directors were involved in overseeing the treatment plan and consulted with a primary care physician (PCP) to optimize treatment plans. Initial outcomes of this program indicate that it was successful in improving patient care and also in reducing overall costs associated with a depressed population. Results included a reduction in the average Hamilton Depression Rating Scale from 10.4 to 5.6, a 56% reduction in hospital admissions for depression, and an 18% total reduction in health care costs per member per month.

In addition; Cleland et al. (2007) aimed to reveal associations of depression and anxiety with demographic, health-related quality of life and clinical characteristics of COPD patients seen in UK primary care. Cross-sectional population-based postal survey of COPD patients comprising the EQ-5D visual analogue scale (EQ-5D (VAS)), the COPD symptom control questionnaire, the Hospital Anxiety and Depression Scale, the Medical Research Council dyspnea index. Demographic and spirometric data were collected from general practice records. The study found that; (20.8%) reported 'caseness' for depression, and (32.7%) reported anxiety. Age and high levels of symptoms were independent predictors of anxiety and depression.

Where, Kroenke et al. (2007) aimed to determine the current prevalence, impairment, and comorbidity of anxiety disorders in primary care and to evaluate a brief measure for detecting these disorders. Criterion-standard study performed between November 2004 and June 2005. 15 U.S. primary care clinics. 965 randomly sampled patients from consecutive clinic patients who completed a self-report questionnaire and agreed to a follow-up telephone interview. And 7-item anxiety measure (Generalized Anxiety Disorder scale) in the clinic, followed by a telephone-administered, structured psychiatric interview by a mental health professional who was blinded to the GAD-7 results. Functional status (Medical Outcomes Study Short Form-20), depressive and somatic symptoms, and self-reported disability days and physician visits were also assessed. The results found that (19.5%) had at least 1 anxiety disorder, (8.6%) had posttraumatic stress disorder, (7.6%) had a generalized anxiety disorder, (6.8%) had a panic disorder, and (6.2%) had a social anxiety disorder.

Boden et al. (2007) examined the extent to which these linkages could be explained by the influence of social, family, and background factors that were associated with early motherhood. Data were gathered as part of the Christchurch Health and Development Study, a 25-year longitudinal study of a birth cohort of

New Zealand children. Information was obtained on: (a) the history of pregnancy and parenthood for female participants over the period 15-21 years; (b) measures of DSM-IV mental disorders and suicidal behavior over the interval 21-25 years; (c) measures of educational achievement over the interval 21-25 years; (d) measures of welfare dependence, workforce participation, and income over the interval 21-25 years; and (e) childhood, family and related confounding factors. Results showed that early motherhood was associated with higher levels of mental health disorders, lower levels of educational achievement, higher levels of welfare dependence, lower levels of workforce participation, and lower income.

### **2.3.4 Discussion of the previous studies**

The researcher will discuss previous studies in three parts; the first one is about tools which were used in these studies, the second is about samples of the studies, and the third is about the results of the previous studies, as the following:

#### **2.3.4.1 Tools of the previous studies**

Most of the studies used Edinburgh Postnatal Depression Scale (EPDS) as; Bergant et al. (1998, 1999), Huang and Mathers (2001), Templeton et al. (2003), Quinlivan et al. (2004), Heh et al. (2004), Denni (2004), Felice et al. (2004), Teissedre and Chabrol (2004), Rubertsson et al. (2005), Rich-Edwards et al. (2006), Adewuya et al. (2005, 2006), Limlomwongse et al. (2006), Husain et al. (2006), Josefsson et al. (2007), Miller et al. (2006), Stuart et al. (1998) and Dayan et al. (2002), Where most of the previous studies applied on post partum women.

Where Mini-International Neuropsychiatric Interview (MINI) was used by studies of Chen et al. (2004), Teissedre and Chabrol (2004), Chenet al. (2004) and Agoub et al. (2005) to elicit depression score among women.

However some of the studies; Stuart et al. (1998), Teissedre and Chabrol (2004), Cury and Menezes (2007), used Beck Depression Inventory to elicit depression scores among women during antepartum and postpartum periods.

Studies of Dayan et al. (2002) and Cury and Menezes (2007) were used Spielberger state-trait anxiety inventory (STAI). While study of Stuart et al. (1998) used Beck Anxiety Inventory to elicit anxiety scores among women.

While Hopkins Symptom Checklist (HSCL) were used by Erickson et al. (1998) and Afana et al. (2003) to elicit depression and anxiety scores among women.

#### **2.3.4.2 Samples of the previous studies**

In the field of samples of the previous studies, the study samples were ranged between small samples as the study of Casey (2000) among 52 women, Wenzel et al. (2003) among 68 postpartum women, Stuart et al. (1998) among 107 postpartum women.

However the medium samples in the studies of Miller et al. (2006) among 325 postpartum in age from 18 to 44 years, Cury and Menezes (2007) among 432 women attending a private clinic in the city, Lee et al. (2005) among 588 female patients of three North Carolina health department family planning clinics, Denni (2004) among 594 postpartum mothers.

While; some studies have large samples as studies of Bergant et al. (1998, 1999) respectively among 1250 women at the maternity ward 5 days after delivery and Rich- Edwards et al. (2006) among 1662 mothers at mid-pregnancy and six month postpartum. In addition there were some studies had too large samples as Dennis and Creedy (2004) among 7600 antepartum, intrapartum, or postpartum women and Heron et al. (2004) among 8323 at 18 and 32 weeks gestation and 8 weeks and 8 months postnatally.

### 2.3.4.3 Results of the previous studies

Most of the previous studies were about anxiety or/ and depression among women, specially in the period of antepartum and postpartum women, where these stages were important in the childbearing age women. In the previous studies of Barnet et al. (1996), Denni (2004), Felice et al. (2004), Evans et al. (2001), Rahman et al. (2003), Rich-Edwards et al. (2006), and Limlomwongse et al. (2006) found that women had significant more depressive symptoms in the third trimester than the early post partum than the late post partum period.

Which revealed that depression among the pregnant women will decreased in the childbirth stages. Heron et al. (2004), Josefsson et al. (2007) found that majority of cases of postnatal depression were preceded by antenatal depression; similarly, postnatal anxiety was preceded by antenatal anxiety. In addition; Altshuler et al. (1998), and Ross & McLean (2006) found that the risk of first onset or exacerbation of panic disorder or obsessive-compulsive disorder appears to increase during pregnancy and the puerperium.

Affonso et al. (1999) revealed that; women experience multiple worries during the childbearing period, such as how pregnancy affects one's body image, whether the baby will be normal and healthy, how being pregnant affects the relationship with spouse, whether to continue employment during or after pregnancy... etc. Where Greco and Zajecka (2000) find that; patients with comorbid depression and anxiety are more debilitated than are patients with either condition alone.

Chen et al. (2004) depressive and anxiety disorders were highly prevalent among women who visited an assisted reproduction clinic for a new course of the treatment.

Study of Rahman et al. (2003), Heh et al. (2004), Robertson et al. (2004), Daradkeh et al. (2006), Husain et al. (2006) and Adewuya et al. (2006) found reversible relation between social support and postnatal depressive symptoms. Rahman et al. (2003), Robertson et al. (2004), Rubertsson et al. (2005) and Husain et al. (2006) found that some factors were the strongest predictors of postpartum depression: depression during pregnancy, anxiety during pregnancy, experiencing stressful life events during pregnancy or the early puerperium, and a previous history of depression.

Dennis and Creedy (2004) find that women who received a psychosocial intervention were equally likely to develop postpartum depression as those receiving standard care.

In other words; Barnet et al. (1996) found that 42% of women had significant depressive symptoms in the third trimester, with 36% and 32% having scores that indicated depression at 2 and 4 months postpartum respectively in adolescents women. While; Denni (2004) found that 29.5% of mothers depressed at 1 week postpartum, decreasing to 23% at 4 weeks and 20.5% at 8 weeks. In addition this ratio were similar to results of Rahman et al. (2003) depressive disorder was 25% in the antenatal period and 28 % in the post-natal period. In contrast; Liselott et al. (2006) find that depression were prevalent in 16.5% of postpartal women versus 29.2% of pregnant women.

While Cury and Menezes (2007) find the prevalence of antenatal depression was 19.6%. Decreased in Limlomwongse et al. (2006) were found that the prevalence of depressive moods was 20.5% during pregnancy and 16.8% at postpartum. Decreased in Felice et al. (2004) were the prevalence of depression was 15.5% at booking, 11.1% in the third trimester and 8.7% postpartum in Maltese women. And Rich-Edwards et al. (2006) found 9% depressive symptoms in mid-pregnancy and 8% in postpartum women. Evans et al.

(2001) 13.5% women scored above threshold for probable depression at 32 weeks of pregnancy, 9.1% at 8 weeks postpartum, and 1.6% throughout.

In addition; Bergant et al. (1998, 1999), Agoub et al. (2005), Adewuya et al. (2005) respectively was diagnosed depression in 20.0%, 18.7% and 14.6 % after childbirth. Stuart et al. (1998) find depression in 23.3% of women at 14 weeks and 18.7% at 30 weeks postpartum. Where Olfson et al. (2000) find that major depression (18.9%) primary care center patients.

While the prevalence of anxiety in the study of Cury and Menezes (2007) was antenatal anxiety, state and trait were 59.5% and 45.3%, respectively.

Stuart et al. (1998) find that the prevalence of anxiety in women was 8.7% at 14 weeks and 16.8% at 30 weeks postpartum. In addition; Olfson et al. (2000) generalized anxiety (14.8%), panic (8.3%) disorders and suicidal ideation (7.1%) were highly prevalent primary care center patients. Liselott et al. (2006) revealed that anxiety were prevalent in 16.5% of postpartal women versus 29.2% of pregnant women.

However the prevalence of mental health problems among females patients who visiting primary care clinics in Afana et al. (2003) was high (76.8%) in the Gaza Strip.

Huang and Mathers (2001) study the effect of residence area on prevalence of depression, which found depression in 18% and 19% respectively in the British and Taiwanese postnatal women. However Muhammad Gadit and Mugford (2007) among households in three capital cities of Pakistan, were Lahore city had the highest number of depressives (53.4%), as compared to Quetta (43.9%) and Karachi (35.7%).

While Erickson et al. (1998) found that women who residing in France (87%) were significantly more likely to show signs symptomatic of depression than women residing in the USA (65%).

Templeton et al. (2003) Rubertsson et al. (2005) and Agoub et al. (2005) find that postnatal depression for the women, linked with many factors; family marital problems, violence, bereavement, financial difficulties, unemployment.

In addition; Journal of Pakistan Medical Association (2002), Lee et al. (2005), Lovisi et al. (2005) and Daradkeh et al. (2006) revealed that women with low levels of education were more likely to evidence depression.

In the same field; Lovisi et al. (2005), Adewuya et al. (2006), Limlomwongse et al. (2006) and Daradkeh et al. (2006) revealed that the factors associated with depression included; marital status being single, second wife, divorced, separated or widowed women. Scocco et al. (2008) found that the lifetime prevalence of suicide ideation, plans, and attempts was 3.0%, 0.7%, and 0.5%, respectively among adults. Risk factors for lifetime suicide-related phenomena were female sex, younger cohort, fewer years of education, and earlier onset age of suicide ideation.

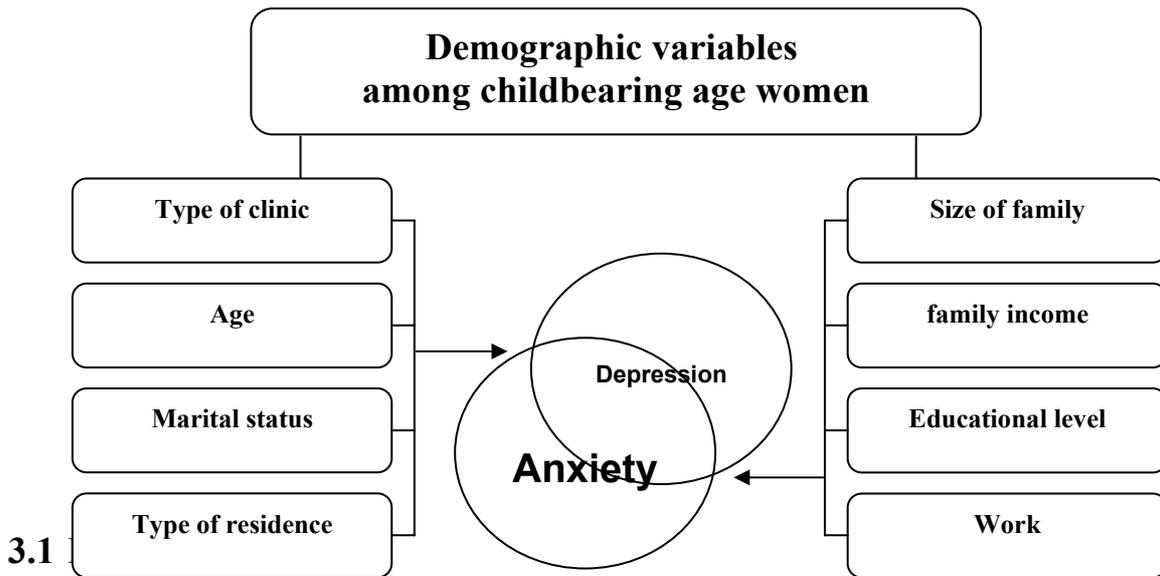
# **Chapter Three**

## **Theoretical Framework**

## Chapter Three

### Theoretical Framework

The researcher will view the theoretical framework in three parts; the first is about depression, and the second is about anxiety, where the third part is about the childbearing age women. The following diagram shows the variables of theoretical framework:



#### 3.1.1 Background and definitions:

Depression has been recognized as a major public health problem evidenced by its ranking of fourth position among the global burden of diseases. Many believe it will occupy second position by the year 2020. 340 million people above the age of 18 suffer from depressive disorders that contribute to a high suicide rate (Muhammad Gadit & Mugford, 2007).

Depression is defined as emotional state or mood characterized by one or more of these symptoms: sad mood, low energy, poor concentration, sleep or appetite changes, feelings of worthlessness or hopelessness, and thoughts of suicide (Strickland, 2001).

A major difficulty in studying depression is that the term is often used indiscriminately for an entire spectrum of experiences where it has come to describe a mood, a symptom, and a syndrome (Marsella, 1994).

The depressive disorder was classified as a mood disorder, The depressive disorders are characterized by lifelong vulnerability to episodes of disease, involving depressed mood or loss of interest and pleasure in activities (Kay & Tasman, 2006).

Depression is seen in all social classes, races, and ethnic groups. It is so pervasive that it has been called the common cold of mental illness in the popular press. It is approximately twice as common among women as it is among men. Depression is seen among all occupations, but it is most common among people in the arts and humanities. Depression defined in terms of the following attributes (Beck, 1970):

1. A specific alteration in mood: sadness, loneliness, apathy.
2. A negative self-concept associated with self-reproaches and self-blame.
3. Regressive and self-punitive wishes: desires to escape, hide, or die.
4. Vegetative changes: anorexia, insomnia, loss of libido.
5. Change in activity level: retardation or agitation.

Depression can generally be traced to a combination of physical, psychological, and environmental factors.

Depressive disorders involve a person's body, mood and thoughts (Strickland, 2001).

Depression is a mood state characterized by a sense of inadequacy, feelings of despondency, sadness, pessimism, and decrease in activity or reactivity. Depressive disorders involve a spectrum of psychological dysfunctions that vary in frequency, duration, and severity. At one end of the continuum is the experience of normal depression (a transient period, usually lasting no longer than two weeks), consisting of fatigue and sadness and precipitated by identifiable stressors. At the other end of the spectrum is the longer-lasting period of depressed mood approaching clinical depressive disorders, which is accompanied by sleep difficulties, eating problems, and growing thoughts of despair and hopelessness (Marsella, 1994).

The term of depression covers a wide range of emotional states that range in severity from normal, everyday moods of sadness, to psychotic episodes with increased risk of suicide. The current diagnostic system in North America, the Diagnostic and statistical manual of mental disorders (American Psychiatric Association, 1994), divides depression, or mood disorders, into depressive disorders and bipolar disorders. Depressive disorders are characterized by at least a 2-week period of depressed mood or a loss of interest or pleasure in almost all daily activities, as well as a number of other symptoms, such as weight loss or gain, loss of appetite, sleep disturbance, psychomotor agitation or retardation, fatigue, feelings of guilt or worthlessness, and difficulties in thinking and concentration (Davidson, 2000).

Almost everyone gets “down in the dumps” or has “the blues” sometimes. Feeling sad or dejected is clearly a normal part of the spectrum of human emotion. This situation is so common that a very important issue is how to separate a normal blue or down mood or emotion from an abnormal clinical state. Most clinicians use measures of intensity, severity, and duration of these emotions to separate the almost unavoidable human experience of sadness and dejection from clinical depression (Piotrowski, 2005). A common explanation is that depressive feelings are adaptive because they function as a “cry for help” that calls attention to needy states and elicits social support. For example, some recent evidence indicates that postpartum depression arises under circumstances, such as poor infant health and a lack of social support, where it can lead others to provide more help to new mothers (Avison et al, 2007).

Of all problems that are mentioned by patients at psychological and psychiatric clinics, some form of depression is most common. It is estimated that approximately 25 % of women in the United States will experience at least one significant depression during their lives. Contrary to a popular misconception that depression is most common among the elderly, it is actually most common in twenty-five- to forty-four-year-olds. About 10 % of the college population report moderate depression, and 5 percent report severe depression. Suicidal thoughts are common in depressive clients. In long-term follow-up, it has been found that approximately 15 percent of depressed individuals eventually kill themselves. Alternatively viewed, approximately 60 % of suicides are believed to be caused by depression or by depression in association with alcohol abuse. As has been vividly portrayed in the media, teenage suicide in the United States is increasing at an alarming rate (Piotrowski, 2005).

### **3.1.2 Prevalence of depression among women:**

In the National Comorbidity Survey, the lifetime prevalence for depression was 17.1%; the 12-month prevalence was 10.3%. In primary care settings, depression can take many forms, including major depressive disorder and dysthymia. Any depressive disorder can coexist with anxiety (Greco & Zajecka, 2000). Extrapolation of prevalence rates for depression in Pakistan yields approximately 8,437,406 out of the 157,935,000-population. a systematic review of published literature that gave prevalence estimates for depression and discussed associated risk factors In their review, they found the mean overall prevalence of depressive disorders was 34% (range 29–66% for women) (Muhammad Gadit & Mugford, 2007).

In the most recent surveys, major depressive disorder has the highest lifetime prevalence (almost 17 %) of any psychiatric disorder. The lifetime prevalence rate of different forms of DSM-IV-TR unipolar depressive disorder, according to the eight major community surveys. The yearly incidence of a major depression is 1.89% among women (Sadock & Sadock, 2007).

Mood depressive disorders is found to be a common psychiatric disorder. The lifetime risk for mood depressive disorders in community samples vary from 10 to 25% for women (American Psychiatric Association, 2000). prevalence of major depression is 4–9% for women. The lifetime risk is 20–26% for women (Goldman, 2000).

The lifetime prevalence of any mood disorder was 44%, and 86% of women who reported mood disorders suffered from major depression. The rate of past-year mood disorder was 20.9%, and 81% of these women who had mood disorders in the past year suffered from major depression. Nearly one third of all lifetime cases (29%) and past-year cases (30%) of major depression among the interviewed women were recurrent (data not shown) and were moderate or severe (Duran et al, 2004).

Depression is more common among persons with chronic medical illness than among medically healthy persons, presumably reflecting at least in part the stress of living with a serious health problem (Friedman & Silver, 2007).

### **3.1.3 Diagnosis of depression:**

There are several possible diagnostic combinations. Diagnosis will depend on the kind, number, and duration of symptoms. Possible diagnoses include (Greco & Zajecka, 2000):

- A full syndromal depressive disorder.
- Coexistence of a depressive disorder, with either or both of the disorders subsyndromal. (Subsyndromal refers to symptoms that do not meet diagnostic criteria in number or duration yet still cause significant disability).
- Comorbid disorders, including substance abuse.
- Somatic symptoms that may or may not be associated with a comorbid medical illness.

One of the most difficult diagnostic challenges when women present with anxiety and/or depression is to determine which somatic symptoms are caused by the anxiety and/or depression and which are caused by other medical conditions. Common somatic symptoms of anxiety and depression include fatigue, headaches,

musculoskeletal pain, gastrointestinal symptoms, dizziness, chest pain, palpitations, breathlessness, and weight loss (Greco & Zajecka, 2000).

Depression is commonly regarded as involving five sets of characteristics, although it can be exacerbated by many other emotional conditions and often occurs in concert with anxiety (Strongman, 2003):

1. a sad, apathetic mood;
2. a negative self-concept involving self-reproach, self-blame and so on;
3. a desire to avoid other people;
4. a loss of sleep, appetite and sexual desire;
5. a change in activity level, usually in the direction of lethargy, but sometimes in the form of agitation.

DSM-IV shows that five groups of diagnostic criteria for major depressive episode (American Psychiatric Association, 1994)( appendix 8).

### **3.1.4 Major depression: (major depressive disorder) (Uni-polar depression)**

There are different types of depression such as (major depression, atypical depression, dysthymia ,psychotic depression, manic depression, seasonal affective depression, and melancholic depression). They are mainly distinguished by the severity of symptoms (Bon, 2007).The researcher will adopt the major depression to be the theme of the current study.

Major depression is probably the most common type of depression. People with major depression seem too tired all the time. They will not be interested in anything in life. They may seem disinterested to involve themselves in regular activities. People with this type of depression will always be in a hopeless state of mind. Due to this they may lose their appetite and suffer from weight loss these are common symptoms for this type of depression (Bon, 2007).

Major Depressive Disorder (also known as Major Depression, Clinical Depression) – A major depressive episode occurs with symptoms that last for most of the day, nearly every day for at least two weeks. A symptom must either be 1 depressed mood or 2 a noticeable decrease in interest or pleasure in all or most activities. At least four (or more) additional symptoms are present (American Psychiatric Association, 1994), (Sadock & Sadock, 2007):

- significant weight loss / weight gain or decrease / increase in appetite.
- difficulty sleeping or increase in sleeping.

- excessive movement or slowing down associated with mental tension (observed by others).
- fatigue or loss of energy.
- feeling worthless or excessive guilt.
- difficulty thinking, concentrating or making decisions.
- repeatedly thinking about death or suicide, trying to attempt suicide or having a specific plan to commit suicide.

According to DSM-IV-TR, a major depressive disorder occurs without a history of a manic, mixed, or hypomanic episode (American Psychiatric Association, 2000), (Sadock & Sadock, 2007).

### **3.1.5 Factors associated with depression among women:**

There are some factors may lead to emerge depression among childbearing age women , as the following:

#### **3.1.5.1 Gender**

Women are generally reported to be twice as likely as men to be diagnosed with a unipolar depressive disorder, both in community and clinical samples (American Psychiatric Association, 1994).

An almost universal observation, independent of country or culture, is the twofold greater prevalence of major depressive disorder in women than in men. The reasons for the difference are hypothesized to involve hormonal differences, the effects of childbirth, differing psychosocial stressors for women and for men, and behavioral models of learned helplessness. (Sadock & Sadock, 2007).

Several explanations have been advanced for understanding the gender differences in rates of depressive disorders. One popular explanation for women’s relatively high rates of depression is that women’s physiology “reproduction-related events” is directly linked to their depressive difficulties (e.g., menstruation, pregnancy, childbirth, menopause) and depression. A second proposed explanation for women’s higher rates of depression focuses on personality characteristics and styles responding to and dealing with life stressors. Finally, a third explanation for why women might reasonably be expected to experience high levels of depression has to do with women’s and men’s different life experiences (Biaggio & Hersen, 2002).

#### **3.1.5.2 Age**

The onset of bipolar I disorder is earlier than that of major depressive disorder. The age of onset for bipolar I disorder ranges from childhood (as early as age 5 or 6) to 50 years or even older in rare cases, with a mean age of 30. The mean age of onset for major depressive disorder is about 40 years, with 50% of all patients

having an onset between the ages of 20 and 50. Major depressive disorder can also begin in childhood or in old age. Recent epidemiological data suggest that the incidence of major depressive disorder may be increasing among people younger than 20 years of age (Sadock & Sadock, 2007: 529). Depression can occur at any age, but the average age at onset is between 30 and 40 years. In general, the earlier the age at onset, the more likely it is that there will be a recurrence (Goldman, 2000). Middle age was associated factor with depressive disorders (Muhammad Gadit & Mugford, 2007). In addition, that the prevalence of mental illness peaks during young adulthood and is lowest among older adults (Avison et al, 2007).

### **3.1.5.3 Marital status**

Being a housewife and relationship problems were Factors associated with depressive disorders among women (Muhammad Gadit & Mugford, 2007). Major depressive disorder occurs most often in persons without close interpersonal relationships or in those who are divorced or separated. Bipolar I disorder is more common in divorced and single persons than among married persons, but this difference may reflect the early onset and the resulting marital discord characteristic of the disorder (Sadock & Sadock, 2007). McLaughlin (2004) finds that women, who do not marry are more depressed than those who marry at normative ages (Avison et al, 2007). Davies, Avison, and McAlpine (1997) found that higher rates of depression among single mothers than married mothers were partially explained by single mothers' higher levels of childhood adversity. These results suggest that the early experience of sever stress may create a lifelong vulnerability to stress, such that lower levels of adult stress will trigger mental health problems (Avison et al, 2007).

In a study of 120 widowed women, Rook (1984) found that negative social interactions were consistently and more strongly related (negatively) to well-being than were positive social interactions (Friedman & Silver, 2007). Research suggests that married people are happier at every age than those who are unmarried (Biaggio & Hersen, 2002).

### **3.1.5.4 Socioeconomic and Cultural Factors:**

No correlation has been found between socioeconomic status and major depressive disorder. A higher than average incidence of bipolar I disorder is found among the upper socioeconomic groups. Depression is more common in rural areas than in urban areas. (Sadock & Sadock, 2007). Lifetime diagnosis of mood disorders was associated with urban residence among women (Duran et al, 2004). In addition, financial difficulty and

low level of education were factors associated with depressive disorders among women (Muhammad Gadit & Mugford, 2007). Most, but not all, studies report the childhood economic deprivation is a risk factor for adult mental illness (Avison et al, 2007).

That means the factors were associated with depressive disorders were female, middle age, low level of education, financial difficulty, being a housewife and relationship problems among women.

## **3.2 Anxiety Disorders**

### **3.2.1 Background and Definitions:**

Anxiety is a central concept in many different schools of psychology, and there are many widely varying theories concerning it; theories of anxiety often have spawned approaches to treating anxiety disorders (Piotrowski, 2005).

Anxiety disorders can be defined as conditions characterized by pathological anxiety that has not been caused by physical illness, is not associated with substance use, and is not part of a psychotic illness. It is often assumed that normal anxiety has an adaptive role, because it serves as a signal that there is danger and that measures need to be taken (e.g., a fight or flight response) to protect oneself against that danger; both the danger perceived and the measures taken are considered appropriate (i.e., not exaggerated) in normal anxiety (Starcevic, 2005).

Anxiety disorder defined as unpleasant emotion triggered by anticipation of future events, memories of past events, or ruminations about the self (Strickland, 2001). Anxiety is an unpleasant emotional state, the sources of which are less readily identified. It is frequently accompanied by physiological symptoms that may lead to fatigue or even exhaustion (Goldman, 2000).

A fascinating aspect of anxiety disorders is the exquisite interplay of genetic and experiential factors. Little doubt exists that abnormal genes predispose to pathological anxiety states; however, evidence clearly indicates that traumatic life events and stress are also etiologically important. Thus, the study of anxiety disorders presents a unique opportunity to understand the relation between nature and nurture in the etiology of mental disorders (Sadock & Sadock, 2007).

It is seen as the result of discrete objects or situations, such as snakes or heights, or as evolving from basic existential problems such as the trauma of birth or the fear of death. All major theories in psychology in some way confront anxiety. Because of its preeminence in the field of psychology, there are many different theories about the nature and origin of anxiety disorders. The two most important and influential viewpoints

on anxiety are the Freudian and the behavioral viewpoints. Although these theories attempt to explain many anxiety disorders, an examination of how they apply to phobias presents a good indication of how they work. A phobia can be defined as an anxiety disorder involving an intense fear of a particular thing (such as horses) or situation (such as heights) (Piotrowski, 2005).

Everyone experiences anxiety. It is characterized most commonly as a diffuse, unpleasant, vague sense of apprehension, often accompanied by autonomic symptoms such as headache, perspiration, palpitations, tightness in the chest, mild stomach discomfort, and restlessness, indicated by an inability to sit or stand still for long. The particular constellation of symptoms present during anxiety tends to vary among persons (Sadock & Sadock, 2007).

### **3.2.2 Diagnosis of anxiety:**

Anxiety commonly occurs as a manifestation of appropriate concern about medical and psychiatric disorders. Medical problems involving any body system can produce anxiety as a symptom. Drugs and dietary factors—particularly caffeine and alcohol—may also provoke anxiety (Goldman, 2000). The diagnostic categories within anxiety disorders have undergone further splitting, so that almost all the categories now have two or more subtypes. The upshot of this trend is a high likelihood for various anxiety disorders and their subtypes to co-occur. Therefore, high rates of co-occurrence among the anxiety disorders or co-morbidity, as this phenomenon is often referred to are not surprising. The rarity of pure cases of most anxiety disorders in clinical practice is a logical consequence of this situation. More often than not, however, the high rates of co-morbidity do not reflect a genuine co-occurrence of independent disorders, but rather are likely to represent an artifact of the splitting classification trends (Starcevic, 2005). Symptoms of Anxiety disorders include physiological responses: a change in heart rate, trembling, dizziness, and tension, which may range widely in severity and origin. People who experience generalized anxiety disorder and panic disorders usually do not recognize a specific reason for their anxiety (Strickland, 2001). Diagnosis will depend on the kind, number, and duration of symptoms. Possible diagnoses include (Greco & Zajecka, 2000):

- A full syndromal anxiety disorder.

- Coexistence of an anxiety disorder, with either or both of the disorders subsyndromal. (Subsyndromal refers to symptoms that do not meet diagnostic criteria in number or duration yet still cause significant disability).
- Co-morbid disorders, including substance abuse.
- Somatic symptoms that may or may not be associated with a co-morbid medical illness.

Anxiety disorders are grouped together on the basis of the assumption that pathological anxiety is their common, defining characteristic. But it is not clear that this is the case with all the disorders that are included in the DSM-IV-TR group of anxiety disorders. For example, it can be argued that posttraumatic stress disorder is as much a disorder of memory, a dissociative disorder, or even a condition that should be placed in its "own" class of trauma-related disorders as it is an anxiety disorder (Starcevic, 2005).

Anxiety disorders represent a class of disorders that include a wide range of symptoms associated with fearfulness and apprehension. Specific symptoms may range from fearfulness of single objects or situations (as seen in specific phobia) to unexpected, intense feelings of panic accompanied by symptoms such as heart palpitations, fear of losing control, or dying (e.g., panic disorder) to a fear of being in places from where it may be difficult to escape which often makes it difficult to leave one's home (agoraphobia). In contrast, some people feel anxious much of the time and in most situations (generalized anxiety disorder). Posttraumatic stress disorder (PTSD), in contrast, involves symptoms which follow a specific, terrifying trauma. Combined, these anxiety disorders make up one of the most frequently diagnosed class of disorders, second only to substance use disorders (Biaggio & Hersen, 2002).

### **3.2.3 Generalized anxiety disorder:**

Anxiety disorders are among the most prevalent mental disorders in the general population. Nearly 30 million persons are affected in the United States, with women affected nearly twice as frequently as men. Anxiety disorders are associated with significant morbidity and often are chronic and resistant to treatment. Anxiety disorders can be viewed as a family of related but distinct mental disorders, which include the following as classified in the text revision of the fourth edition of Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR) (Sadock & Sadock, 2007), panic disorder, specific and social phobia, obsessive-compulsive disorder, acute stress disorder, posttraumatic stress disorder, and generalized anxiety disorder. The researcher adopts generalized anxiety disorder to be the theme of this study.

Anxiety can be conceptualized as a normal and adaptive response to threat that prepares the organism for flight or fight. Persons who seem to be anxious about almost everything, however, are likely to be classified as having generalized anxiety disorder. The text revision of the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR) defines generalized anxiety disorder as excessive anxiety and worry about several events or activities for most days during at least a 6-month period. The worry is difficult to control and is associated with somatic symptoms, such as muscle tension, irritability, difficulty sleeping, and restlessness. The anxiety is not focused on features of another Axis I disorder, is not caused by substance use or a general medical condition, and does not occur only during a mood or psychiatric disorder. The anxiety is difficult to control, is subjectively distressing, and produces impairment in important areas of a person's life (Sadock & Sadock, 2007). Generalized anxiety disorder usually causes less dysfunction than other anxiety disorders (except specific phobia) (Goldman, 2000). Generalized anxiety disorder is a common condition; reasonable estimates for its 1-year prevalence range from 3 to 8 percent. The ratio of women to men with the disorder is about 2 to 1, but the ratio of women to men who are receiving inpatient treatment for the disorder is about 1 to 1. A lifetime prevalence is close to 5 percent with the Epidemiological Catchment Area (ECA) study suggesting a lifetime prevalence as high as 8 percent. In anxiety disorder clinics about 25 percent of patients have generalized anxiety disorder. The disorder usually has its onset in late adolescence or early adulthood, although cases are commonly seen in older adults. Also, some evidence suggests that the prevalence of generalized anxiety disorder is particularly high in primary care settings (Sadock & Sadock, 2007). Generalized anxiety is disorder which exhibiting context inappropriate dysregulation (Davidson, 2000). The National Co-morbidity Survey found the 12-month prevalence of generalized anxiety disorder to be 4.3% in females (Goldman, 2000). Generalized anxiety disorder is probably the disorder that most often coexists with another mental disorder, usually social phobia, specific phobia, panic disorder, or a depressive disorder. Perhaps 50 to 90 percent of patients with generalized anxiety disorder have another mental disorder. The cause of generalized anxiety disorder is not known. As currently defined, generalized anxiety disorder probably affects a heterogeneous group of persons. Perhaps because a certain degree of anxiety is normal and adaptive, differentiating normal anxiety from pathological anxiety and differentiating biological causative factors from psychosocial factors are difficult. Biological and psychological factors probably work together (Sadock & Sadock, 2007).

Generalized anxiety disorder, according to DSM-IV-TR, is characterized by a pattern of frequent, persistent worry and anxiety that is out of proportion to the impact of the event or circumstance that is the focus of the worry. The distinction between generalized anxiety disorder and normal anxiety is emphasized by the use of the words "excessive" and "difficult to control" in the criteria and by the specification that the symptoms cause significant impairment or distress (American Psychiatric Association, 2000) (Appendix 9).

### **3.2.4 Prevalence of anxiety disorder among women:**

In epidemiologic studies, anxiety disorders are the most common psychiatric disorders. The National Comorbidity Survey showed that in this country, the chance of having an anxiety disorder was 24.9% over a lifetime and 17.2% over a 12-month period. Anxiety disorders include generalized anxiety disorder, panic disorder, obsessive compulsive disorder, phobic disorders, and posttraumatic stress disorder (Greco & Zajecka, 2000).

Various studies have reported a lifetime prevalence ranging from 3 to 13 percent for social phobia. The 6-month prevalence is about 2 to 3 per 100 persons. In epidemiological studies, females are affected more often than males, but in clinical samples, the reverse is often true. The reasons for these varying observations are unknown. The peak age of onset for social phobia is in the teens, although onset is common as young as 5 years of age and as old as 35 (Sadock & Sadock, 2007).

There were 27% to 48% of patients who present in the primary care setting with a psychiatric disorder, up to 50% do not receive a proper diagnosis found that 33% of 6,307 primary care patients screened for psychiatric disorders met criteria for an anxiety disorder. Of positively screened cases, 56% had not been previously diagnosed. further analyzed 647 screen-positive patients and found that 52% met criteria for one or more anxiety disorders, and 28% met criteria for multiple diagnoses (Greco & Zajecka, 2000).

In Pakistan yields approximately 8,437,406 out of the 157,935,000-population. a systematic review of published literature, they found the mean overall prevalence of anxiety was 34% (range 29 – 66% for women) (Muhammad Gadit & Mugford, 2007).

Anxiety disorders were the most common mental disorders, a finding consistent with results of other epidemiological studies of mental disorders in primary care 27–30, and 62.8% of the women met criteria for any lifetime anxiety disorder diagnosis. Specific phobia (30.7%) and posttraumatic stress disorder (29%)

were the most common anxiety disorders, and 15% of the women met criteria for both disorders (Duran et al, 2004).

### **3.2.5 Factors associated with anxiety among women:**

Factors associated with anxiety disorders were female sex, middle age, low level of education, financial difficulty, being a housewife and relationship problems among women (Muhammad Gadit & Mugford, 2007).

Several explanations have been advanced for understanding the gender differences in rates of anxiety disorders, were women's anxiety higher than men's. (Biaggio & Hersen, 2002).

The study of Journal of Pakistan Medical Association (2002) determine some factors associated with anxiety among women in a lower middle class semi-urban community of Karachi, Pakistan which low level of education and high rate of domestic abuse.

Lifetime diagnosis of anxiety disorders was associated with being older than 35 years, high debt, less than high school (educational level), and low self-rated health among American Indian and Alaska Native women (Duran et al, 2004).

Afana et al. (2003) revealed that the prevalence of mental health problems was higher among patients living in refugee camps.

Börjesson et al. (2005) conclude that there were a strong association between long-lasting psychiatric illness and personality disorders in childbearing women. A strong association was also found between psychiatric symptoms during pregnancy and the postpartum period.

### **3.2.6 The co-morbidity of depression and anxiety among women:**

The etiological understanding of the anxiety disorders continues to be split into biological and psychological models. There is an increasing need, however, to combine the contributions of these models in an effort to arrive at a more comprehensive understanding of the etiology and pathogenesis of anxiety disorders (Starcevic, 2005).

Greco & Zajecka (2000) found that the rate of comorbid anxiety and depression was especially high in this study. The comorbidity of depression and anxiety is a clinically challenging issue not just for psychiatrists but for clinicians who work with patients in a variety of settings, including primary care. Compared with patients who have either depression or anxiety alone, patients who have symptoms of both (Greco & Zajecka, 2000):

- Exhibit greater overall psychopathology.
- Are more frequently chronically ill.
- Have a higher statistical probability of suicide.
- Show greater social and occupational impairment.
- Have poorer prognoses.

Anxiety disorders and depressive disorders are common in women, but they tend to be underdiagnosed or approached as diagnoses of exclusion.

In order to explain the behaviors of women who have been frequently abused, Walker developed the theory of the battered woman syndrome, which she sees as a variant of post-traumatic stress disorder (PTSD). The key behaviors of anxiety, cognitive distortion, and depression can on one hand help a woman to survive her abuse. On the other hand, they can interfere with her ability to change her life situation by using appropriate methods (Piotrowski, 2005).

Evolutionary psychology tries to specify the contexts in which depression, anxiety, and other emotionally painful states might have adaptive functions in analogous ways to the useful, albeit uncomfortable, defenses that pain, vomiting, or nausea provide against disease. The particular contexts that humans are naturally designed to respond to map remarkably well onto the major themes of the classical sociologists. One school of evolutionary thought regards depression as a naturally selected response to losses of valued attachments involving intimacy, love, and friendship. In this view, depression developed as a way of mobilizing social support from the group or of avoiding premature severing of important interpersonal ties (Avison et al, 2007).

In Palestinian society; Afana et al. (2003) found that the prevalence of mental health problems among females patients who visiting primary care clinics was high (76.8%) in the Gaza Strip.

The researcher says that anxiety may more common among women than depression while this idea may change according to the factors were associated to depression or anxiety, and according to changes were occurs during the childbearing age of the women.

### 3.3 Childbearing age women

Childbearing age women means that; women of reproductive age (from the first menstrual period "menarche" through menopause) (Varney et al., 2004).

The number of females in Palestine at the age group of 15- 49 is estimated to 838,555 (45.1%) of the total number of the females in 2005, out of which 543,075 in West Bank (46.4%) and 295,480 (43%) in Gaza Strip (MOH, 2006).

While the typical childbearing years envelop the ages of 15 through 44 years; however, females can, and sometimes do, become pregnant anywhere from ages 9 through 56 years of age (Klossner, 2005). There are risk factors that are associated with delayed childbearing. For women, fertility declines with age (Klossner, 2005).

Menstruation, contraception, pregnancy, birth, and motherhood and menopause are very important issues to the psychology of women. They are, after all, experienced only by women, and most women, despite the diversity of their lives, will experience menstruation and menopause and consider whether (and when) to use contraception. The majority of women will become pregnant at some point in their lives, and most who do will become mothers:

#### 3.3.1 Menstruation:

Also called: Menses, Menstrual period, Period, is a woman's monthly bleeding. Every month, her body prepares for pregnancy. If no pregnancy occurs, the uterus sheds its lining. The menstrual blood is partly blood and partly tissue from inside the uterus, or womb. It passes out of the body through the vagina. Periods usually start around age 12 (Menarche, the first menstruation) and continue until menopause, at about age 51.

Most periods last from three to five days (Nelson, 2007).

The regular appearance of the menses is a sign of good health, is symbolic of a connection to other women, represents biological maturity, signifies their ability to bear children, but lets them know they are not pregnant (Biaggio & Hersen 2002).

Menstruation is part of the menstrual cycle, which prepares the female's body for pregnancy each month. A cycle is counted from the first day of one period to the first day of the next period. The average menstrual cycle is 28 days long. Cycles can range anywhere from 21 to 35 days in adults and from 21 to 45 days in young teens (Nelson, 2007).

### **3.3.2 Contraception**

Contraception refers to the temporary prevention of pregnancy, which is accomplished through the use of specific contraceptive, or birth control, methods (Varney et al., 2004).

The decision of whether or when to bear children is a crucial one that has long-term consequences for women's lives. Women's ability to make reproductive decisions depends on the availability of various, accessible, safe, effective, and inexpensive methods of contraception. Although no single method is best for all women, or completely safe and effective, a variety of alternatives allows women to make contraceptive choices that best match their bodies, relationships, and life circumstances (Biaggio & Hersen 2002).

Women of childbearing age should be on an effective contraceptive method when using these medications, and those planning a pregnancy may require a change in therapeutic management. The most popular temporary method of contraception in the United States is combination oral contraceptives (Varney et al., 2004).

### **3.3.3 Abortion**

Abortion is invasive procedure resulting in pregnancy termination and death of the fetus. It is the final consequence of a woman's decision to terminate her pregnancy. Abortion is a complex issue that raises a plethora of medical, ethical, political, legal, and psychological questions, and is viewed by proponents and opponents as one of society's fundamental problems (Strickland, 2001).

There are many reasons why a woman may consider seeking an abortion. Her pregnancy may be unintended because she lacked birth control information, because contraceptives were unavailable to her, or because her contraceptive failed. Sexual intercourse that led to the pregnancy may itself have been unwanted and due to rape, incest, domestic violence, or pressure from her partner. Perhaps she is homeless or addicted and exchanged sex for shelter, money, or drugs. Her pregnancy may have been planned, but then she found herself in a medical or financial situation that would make having her baby dangerous or unethical (Biaggio & Hersen 2002).

Abortion is a less frequent although still practiced method of contraception in this age group. Although only 1.4% of births occur in women over age 40 years, 39% of pregnancies in women of this age end in abortion, compared with only 20% of pregnancies in women aged 25–34 years (Rosenfeld, 2004). While abortion is practiced throughout society, in all socioeconomic strata, poor women are three times more likely to have an abortion than their well-off counterparts (Strickland, 2001).

The psychological pain of giving up a child for adoption is often severe and long lasting. When women freely choose legal abortions, they usually cope quite well. Negative emotional after effects are uncommon; the most frequently reported emotion is relief. Researchers have generally found that psychological distress scores drop immediately after abortions and remain low for several weeks afterward. The more social support women have from their families and friends, the better they cope. When their male partners' disagree with their decision to have an abortion, women appear to experience psychological distress only when they themselves are not certain they have made the right choice. Predictors of poor coping include strong religious or cultural beliefs that abortion is wrong, low social support, a history of emotional problems, pressure from others to consent to an abortion, and the expectation that coping will be difficult (Biaggio & Hersen 2002).

### **3.3.4 Pregnancy**

Pregnancy is a major life event that affects many important aspects of women's lives; it causes changes in body size and functioning, changes in roles and identity, and changes in relationships. Like other life events, pregnancy can be a stressful experience that necessitates adjustment and the implementation of coping strategies (Biaggio & Hersen, 2002).

Pregnancy is the carrying of one or more offspring, known as a **fetus** or **embryo**, inside the body of a **female mammal** such as a **human**. In a pregnancy, there can be multiple **gestations** (for example, in the case of **twins** or **triplets**). Human pregnancy is the most studied of all **mammalian pregnancies**, and the medical field that deals with pregnancy is called **obstetrics** (Bennett & Brown, 2005).

Women report a variety of physical and emotional experiences during pregnancy. During the first trimester, women complain of moodiness, fatigue, nausea, and vomiting. Heartburn and fatigue are frequent problems during the second and third trimesters. Coping with these symptoms may require women to make changes in their work and family roles. Clinicians should validate these experiences as prevalent, normal, and uncomfortable and suggest strategies for adjusting to and managing them. Pregnant women have not been found to differ significantly from control groups on standardized measures of anxiety or depression (Biaggio

& Hersen 2002). Estrogens and progesterone rise to high levels during pregnancy, only to drop abruptly postpartum as prolactin levels elevate (Rosenfeld, 2004). Women's concerns or worries also vary across the course of pregnancy. At 16 weeks women's most common worries were about miscarriage, money, giving birth, having a healthy baby, and coping with a new baby. The most common concern was about the baby's health. This concern was mentioned by some women throughout the course of pregnancy, but it was reported most frequently at 16 weeks (the time when many women have amniocentesis) and 35 weeks and least frequently at 22 weeks. The women who were the most worried about their babies' health were those who had high trait anxiety scores, had mixed reactions to their pregnancies, had previously given birth to unhealthy infants, or believed there was a high likelihood that their babies would have problems. Thus, concerns about infants' health are widespread, and some women may need social support and reassurance throughout their pregnancies. Results of prenatal testing may calm fear or heighten it, and counselors should be prepared to help women deal with either reaction. Psychosocial factors such as stressful situations, trait anxiety, and life changes have been associated with pregnancy and birth complications such as preeclampsia, preterm labor, and prolonged labor (Biaggio & Hersen, 2002). Assisted reproductive technology is much more effective than it was in the past, there is a higher incidence of multiple fetal pregnancies (i.e., twins, triplets) when these technologies are used to help a woman get pregnant (Klossner, 2005).

### **3.3.5 Childbirth:** also called labour, birth, partus or parturition)

Childbirth is the process of delivering a child from the uterus, usually by passage through the birth canal at the end of pregnancy, normally after a gestation period of about 267 days; also called parturition, or labor (Strickland, 2001). **Childbirth** usually occurs about 38 weeks from **fertilization**, i.e. approximately 40 weeks from the start of the last **menstruation** (Bennett & Brown, 2005). Is the culmination of a **human pregnancy** or **gestation** period with the delivery of one or more newborn **infants** from a **woman's uterus** (The Columbia Encyclopedia, 2006). Thus, pregnancy lasts about nine months, although the exact definition of **the English word "pregnancy"** is a subject of controversy (Bennett & Brown, 2005). Childbirth is a memorable, meaningful, and challenging event in women's lives. It can be both exhilarating and anxiety provoking, empowering and disappointing, a source of accomplishment or failure. Because there are many psychological aspects of birthing, psychologists could play an important role through both research and clinical practice in working to improve women's experiences. Knowledge of current research and theory

about childbirth preparation, coping, and the meaning of childbirth experiences for women will assist counselors and psychotherapists in their efforts (Biaggio & Hersen, 2002). The process of human childbirth is categorized in 3 stages of labour. In the first stage, the uterus begins rhythmic **contractions** which steadily increase in strength and frequency, gradually **widening** and **thinning** the **cervix**. During the second stage, the infant passes from the uterus, through the cervix and **birth canal**. In the third stage, the **placenta** pulls from the uterine wall and is expelled through the birth canal (The Columbia Encyclopedia, 2006).

### **3.3.5.1 Childbirth Experiences**

Women are often eager to discuss their childbirth experiences, regardless of whether they are positive or negative. Conversations with mothers about their experiences can help to identify the factors that contribute to the quality of the experiences and provide insights for psychological interventions. One of the most important predictors of a satisfying birthing experience is the ability to remain in control. This means control over one's own behaviors, control over medical decisions regarding one's care, and physical and mental awareness during labor and delivery. Other predictors of a positive experience include information about childbirth, social support, and satisfaction with maternity care. Women tend to be more satisfied with maternity care if they are able to assume an active role in decision-making (Biaggio & Hersen, 2002).

Women cope with the pain and anxiety associated with birthing in many ways. One of the most effective ways is social support from their partners, friends, families, and health care providers. Social support during labor can be emotional (i.e., encouragement and comfort), informational (i.e., advice), tangible (e.g., massage), and advocacy (e.g., negotiating with medical staff). Social support from partners has been found to be related to decreased pain perception and positive evaluation of one's performance during childbirth (Biaggio & Hersen, 2002). A woman older than 35 years is more likely to conceive a child with chromosomal abnormalities, such as Down's syndrome (Klossner, 2005).

### **3.3.5.2 Motherhood**

When women become mothers for the first time, they are faced with many challenges. These may include recovering from childbirth, meeting the demands of an infant, negotiating new issues with a partner, making decisions about paid employment, and facing the realities of motherhood, which often vary from expectations. These tasks are difficult, yet women are rarely given the support and encouragement they need

to accomplish them. As a result, new mothers may experience depression, anxiety, frustration, and isolation. Counselors and psychotherapists can facilitate this transition by encouraging women to discuss their expectations, needs, and concerns and by providing them with the information, coping strategies, skills, and resources they need to meet the challenges of motherhood (Biaggio & Hersen 2002). Some women never experienced quality mothering when they were children. They have no memory or imprint of a secure attachment. The task of mothering may seem overwhelming to these women and they are at high risk for frustration during the early months of motherhood. Whenever possible the midwife should attempt to refer these women to a counselor or parenting group during the weeks immediately after birth (Varney et al, 2004).

### **3.3.6 Menopause**

Menopause is a physiologic event defined as the cessation of menses for 12 months and is, therefore, a diagnosis that can be made only retrospectively. It is not a diagnosis made based on blood tests, because levels of follicle-stimulating hormone (FSH), luteinizing hormone (LH), and estradiol vary widely during the perimenopausal time until menses cease permanently. Serum hormone levels do not always correlate with a woman's symptoms (Rosenfeld, 2004). It occurs as a result of age-related changes that lead to the gradual diminishing of the production of ovarian hormones. The downside of menopause, women say, is loss of fertility, physiological changes that accompany it, feeling less feminine, having a clear sign of aging, and a belief that it has come too soon (Biaggio & Hersen, 2002).

In the USA, the average age of onset of menopause is 50 years (Rosenfeld, 2004). But it can occur naturally at any age between 40 and 60. (Biaggio & Hersen, 2002). Various factors may influence the age of menopause. Smoking and shorter menstrual cycles can cause earlier menopause, while multi gravidity and use of oral contraceptive pills are associated with later menopause. There may be additional factors, including cultural differences, that influence the age of menopause. There is a genetic predisposition for early menopause. Ethnic and cultural influences affect a woman's experience during this transition. Women's responses to the decrease in hormones can be quite variable and individualized (Rosenfeld, 2004). The process that leads to menopause (known as perimenopause) takes about seven years to complete. Therefore, a woman who will reach menopause at age 50 will probably notice the first changes in her menstrual cycle at around age 43. Early changes are likely to include menstrual cycle irregularity, including

shorter or longer cycles and heavier or lighter bleeding, and, for some, the return of menstrual cramps  
(Biaggio & Hersen, 2002).

### **3.4 Primary health care centers**

Primary health care system (PHC) is a major component of Palestinian health care system; this system has provided health care to all Palestinian people. Classification of PHC according to providers in the Gaza Strip and West Bank shows that, the MOH is considered the main provider with 63.6% from the total PHC centers, followed by the NGOs with 28.3%, then UNRWA with 8.1% (MOH, 2006).

There are 58 governmental primary health center, 15 united nation relief work agency , one community mental health center, and one rehabilitation private center in the Gaza Strip (MOH, 2006).

### **3.5 Conclusion**

There are many changes in the period of the childbearing age women; menstruation, contraception, pregnancy, abortion, childbirth and motherhood, were ended in the menopause, these changes associated to physical and psychological pains, which leads psychological problems as negative emotions, psychological distress, depression and anxiety.

Awareness of depression can facilitate diagnosis. Women may present at certain times, such as premenstrual and premenopause. Women tend to have a more chronic pattern of depressive illness than men and to express more symptoms of appetite/weight changes, sleep disturbances, psychomotor retardation, guilt, panic, anxiety, and somatization (especially pain syndromes) (Rosenfeld, 2004).

Although some level of anxiety and depression accompanies any stressful life event, some new mothers may experience a longer and more serious depression that requires clinical attention. Approximately 10 percent of women experience a diagnosable postpartum depression, which is characterized by sadness, crying, self-blame, loss of control, irritability, difficulty sleeping, anxiety, and tension. Risk factors for postpartum depression include a family history of depression, depression during pregnancy, or a preexisting psychological disorder (Biaggio & Hersen 2002).

Empirical research does not support a direct connection between hormones and postpartum depression. Researchers have examined the role of various stressors and found that a dissatisfying marriage, ineffective coping strategies, and fussy infants can complicate the transition to parenthood and contribute to postpartum depression. Social support may alleviate these stressors and help to prevent postpartum depression. Whether

postpartum depression is distinct from other forms of depression is currently being debated, yet “postpartum onset” is a subtype of clinical depression according to the DSM-IV (American Psychiatric Association, 1994). While; Lee et al. (2005) says that Depression is a common, yet under diagnosed mental health problem among women of reproductive age.

Evans et al. (2001) revealed that symptoms of depression are more common during pregnancy than after childbirth. In agree Rahman et al. (2003) Conclude that recognizing and treating depression should be initiated during the antenatal, rather than post-natal period.

Wenzel et al. (2003) conclude postpartum generalized anxiety has a higher prevalence than postpartum depression. Where Chen et al. (2004) revealed that; depressive and anxiety disorders were highly prevalent among women who visited an assisted reproduction clinic for a new course of the treatment.

Some feminist psychologists view postpartum depression as a normal reaction to the major social and personal adjustments that women are required to make without the necessary social and structural support. It is interesting to note that women are less likely to experience postpartum depression in cultures that recognize and support the efforts of new mothers (Biaggio & Hersen, 2002). That means the natural changes in the childbearing age women leads to depression and anxiety among them.

Ross & McLean (2006) revealed that anxiety disorders are common during the perinatal period, with reported rates of obsessive-compulsive disorder and generalized anxiety disorder being higher in postpartum women than in the general population.

In the end of this view the researcher ask her self, what is the level prevalence of depression and anxiety among childbearing age women in the Palestinian community? Then this question motivate the researcher to investigate the prevalence of depression and anxiety among the study sample of the childbearing age women and to investigate that some factors were may associated to these variables as; age, educational level, economic status, residential area, and marital status.

# Chapter Four

## Methodology

## Chapter Four

### Methodology

**The researcher presents in this chapter; description of study design, study population, study sample , ethical consideration and the instruments that had been used in the data collection.**

#### 4.2 Study design

This is a descriptive –analytical study, which tries to answer the study questions about assessing the depression and anxiety among the childbearing age women who attend primary health care centers in the Gaza Strip. The study uses a cluster sample design to select a representative sample of women 15 to 44 years of age attending Primary Care Clinics in the Gaza Strip. Clinics or Primary Sampling Units (PSUs) will be selected with the probability proportional to size (PPS) method. The size measure is the average monthly number of visits per clinic. Subjects (or ultimate sampling units) will be selected using a systematic equal probability sample with a random start. This means that every  $n^{\text{th}}$  visitor recorded in the clinic registrar (including patients and companions) will be selected for an interview. The goal is to select 10 clinics (PSUs) from the Gaza five regions: north of Gaza, Gaza city, and the camp Midzone, Khan Younis and Rafah,. Enough interviews will conduct in each clinic to yield a total sample size of 500 participants.

### 4.3 Population and sample

#### 4.3.1 Study population:

All women in childbearing age (15-44) attending primary care centers in the Gaza Governorates. This includes patients seeking treatment and companions in newborn, immunizations, dental, family planning, antenatal care and physical exam clinics in governmental and UNRWA's primary health care centers in the Gaza Strip.

#### 4.3.2 Study sample

**A systematic equal probability sample of 500 participants (childbearing age women) is to be drawn from a population lists which attending 10 primary health care centers (governmental and UNRWA clinics). 461 of the participants were respondent on the study tools with response rate (92.2%) with (mean of age = 29.92 years and standard deviation SD 7.42). The following table shows that the distribution of the study sample according to governorates:**

Table 1: Distribution of the sample according to governorates

Governorates	N	%
--------------	---	---

North Gaza	99	21.5
Gaza	50	10.8
Middle	86	18.7
Khanyonis	176	38.2
<b>Rafah</b>	50	10.8
<b>Total</b>	461	100.0

The following table shows that; the distribution of the study sample according to the name of clinics.

**Table 2: Distribution of the sample according to name of clinics**

Variable	N	%
<b>Jabalia</b>	50	10.8
<b>Rafah</b>	48	10.4
<b>Bany Sohayla</b>	44	9.5
<b>Khzaa</b>	45	9.8
<b>Khawaldy</b>	50	10.8
<b>Jort Elliot</b>	45	9.8
<b>Khan Younis</b>	45	9.8
<b>Rimal clinic</b>	48	10.4
<b>Elbureij center</b>	42	9.1
<b>Abu Shbak</b>	44	9.5
<b>Total</b>	461	100.0

#### **Place of the research 4.4**

Governmental and UNRWA's primary care clinics in the Gaza governorates.

#### **Ethical considerations 4.5**

An approval letter was obtained from Helsinki committee in the Ministry of Health to allow the researcher to carry out his study (appendix 1). And another approval was obtained from the administration offices of Governmental (appendix 2) and UNRWA (appendix 3) primary health care centers (PCCs) in Gaza Strip to facilitate data collection procedures. Before starting with the data collection the researcher guaranteed how protecting the informants rights considered, insure confidentiality, mention the right to withdraw, and to consider the consequences of the information, and to make sure not to harm the informants (appendix 4).

*The researcher used socio-economical status questionnaire (appendix 5), Beck Depression Inventory (BDI-2) (appendix6), and Taylor Manifestation Anxiety Scale (TMAS) (appendix 7).the description of these instruments will be as the following:*

#### 4.6.1 Socio-economic status (developed by the researcher):

*Socio-economic status for childbearing aged women developed to assess the age, marital status, Size of family, place of residence, educational level, jobs, and family income among the study sample (annex, 4).*

#### 4.6.2 Beck Depression Inventory (BDI-2):

##### Description of BDI-2

The long form of the BDI-2 is composed of 21 questions or items, each with four possible responses. Each response is assigned a score ranging from zero to three, indicating the severity of the symptom. Individual questions of the BDI-2 assess mood, pessimism, sense of failure, self-dissatisfaction, guilt, punishment, self-dislike, self-accusation, suicidal ideas, crying, irritability, social withdrawal, body image, work difficulties, insomnia, fatigue, appetite, weight loss, bodily preoccupation, and loss of libido. Items 1 to 13 assess symptoms that are psychological in nature, while items 14 to 21 assess more physical symptoms. The scores of the BDI-2 were, (0- 21 no depression), (22 – 42 moderate depression), and (43 – 63 sever depression).

#### 4.6.3 Taylor manifestation anxiety scale (TMAS):

##### Description of TMAS

Taylor (1953) developed one of the first measures of chronic, manifest anxiety, Taylor's Manifest Anxiety Scale (MAS). Taylor's scale consisted of items selected from the Minnesota Multiphase Personality Inventory Taylor's MAS was reported to be useful in identifying adults with chronic anxiety (Reynolds &

Richmond, 1997). We used the Arabic version with 50 items and answer is "Yes" or "No". The score ranged from (0- 13 no anxiety), (14- 26 Mild anxiety), (33- 40 moderate anxiety), and (37- 50 very sever anxiety).

#### 4.7 Validity and reliability of the instruments

##### 4.7.1 Validity and reliability of Beck depression inventory:

Abu Hein (2007) was estimate the validity of BDI by use internal consistency method, where calculate the correlation between every item and the total scores of the inventory, were the person's correlations ranged from (0.23 – 0.54) among sample consisted of 1134 male and female students. In addition, Abu Hein (2007) was estimate reliability by use test re-test method after two weeks, were among two samples; the first were among 52 students of secondary schools and the second were 73 students of the university. Correlations between two tests shown in the following table:

**Table 3:** Correlations of test re-test reliability of BDI-2

University students			Secondary school's students		
Males	Females	Total	Males	Females	Total
N= 31	N= 42	N= 73	N= 26	N= 26	N= 52
0.54	0.56	0.51	0.86	0.87	0.86

In addition; Abu Hein (2007) was estimate the value of cronbach's alpha among for the items of the scale (21 items) among 1134 sample of the students (alpha = 0.84), 564 females of the students (alpha = 0.82), 570 males of the students (alpha = 0.85).

These results revealed that the BDI-2 is valid and reliable and the researcher can collect data by use BDI-2.

##### 4.7.2 Validity and reliability of Taylor manifestation Anxiety Scale:

Reynolds & Richmond, 1997 estimate internal consistency of the scale, using Cronbach's alpha was (0.86) and split- half was (0.79).

#### 4.8 Data collection, entry and analysis

Data has been collected by a volunteer team ( colleagues of the researcher such as; nurses and physicians), who work in the mentioned clinics.

After data collection of the sample the researcher used Statistical Package for Social Sciences "SPSS" computer program for data entry, cleaning and analysis to answer the study questions, where clarifying the

differences and relations between the groups such as frequencies, t- independent test, comparing means, one way A NOVA that also denoted the differences between the groups and within the groups of the study variables.

**4.9.1. Inclusion criteria:**

Clinic's females visitors (15- 44) who agree to participate, including patients seeking treatment and companions in newborn, immunization ,antenatal care, and other clinics.

**4.9.2. Exclusion criteria:**

Visitors living abroad., Women with chronic diseases., and women who aged below 15 years and above 44 years.

**Limitations 4.10**

This research was limited by its sample of women who visited primary health care centers in Gaza Strip. And limited by its variables, and instruments at study year 2007/ 2008.

# **Chapter Five**

## **Results**

## Chapter Five

### Results

In this chapter the researcher will view the results in three models; the first is the socio-demographic characteristics of the study sample (childbearing age women). The second is about the prevalence of depression and anxiety. The third is about the relation between depression and anxiety, and if there are differences according to socio-demographic data of childbearing age women; using descriptive statistics; frequencies, percentages, means and standard deviation and chi-square. In addition; the researcher will use t- independent test, and one-way ANOVA test (F-test), as the following:

#### 5.1 Socio-demographic results of the study sample

As shown in the following table, the total number of sample selected for the current study were a 461 childbearing age women from the five Gaza Governorates.

Table 4 : Distribution of the sample according to the governorates

Variable	N	%
North Gaza	99	21.5
Gaza	50	10.8
Middle area	86	18.7
Khanyonis	176	38.2
Rafah	50	10.8
Total	461	100

As shown in the following table, 191 (41.4%) of the childbearing age women of the study sample were who visits UNRWA clinics, and 270 (58.6%) were who visits Governmental clinics.

Table 5: Distribution of the sample according to type of clinic

Variable	N	%
UNRWA	191	41.4
Governmental clinic	270	58.6
Total	461	100

The following table shows that; 122 of the childbearing age women with range of age 15 – 24 years (26.5%), 227 aged 25 – 35 years (49.2%) and 112 of the sample were aged 36 – 44 years (24.3%). The minimum age was 15 years and the maximum age was 44 years, Mean = 29.92 years, SD= 7.42.

Table 6: Distribution of the sample according to age of the sample

Variable	N	%
15 - 24 years	122	26.5
25 - 35 years	227	49.2
36 - 44 years	112	24.3
Total	461	100.0

The following table shows that; 408 of the childbearing age women of the study sample were married (88.5%), 37 were single (8.0%), 7 were divorced (1.5%), and 9 of sample were widowed (2.0%).

Table 7: Distribution of the sample according to marital status

Variable	N	%
----------	---	---

Married	408	88.5
Single	37	8.0
Divorced	7	1.5
Widowed	9	2.0
Total	461	100.0

The following table shows that; 46 of the childbearing age women were delivered since 3 months and less (10.0%), 51 were since 4 – 6 months (11.1%), 51 were since 7 – 12 months (13.2%), 117 were since 1 – 2 years (25.4%), 71 were since more than 2 – 5 years (15.4%) and 53 were delivered since more than 5 years (11.5%).

Table 8: Distribution of the sample according to last delivery

Variable	N	%
3 months and less	46	10.0
4 - 6 months	51	11.1
7 - 12 months	61	13.2
1- 2 years	117	25.4
More than 2 – 5 years	71	15.4
More than 5 years	53	11.5
Total	399	100.0

The following table shows that; 136 of the childbearing age women were have family size 4 persons and less than (29.5%), 165 were 5 – 7 persons (35.8%) and 160 of sample were have 8 and above of family size (34.7%).

Table 9: Distribution of the sample according to size of family

Variable	N	%
4 and less than	136	29.5
5 - 7 persons	165	35.8
8 and above	160	34.7
Total	461	100.0

The following table shows that; 174 of the childbearing age women were live in city (37.7%), 158 live in camp (34.3%) and 129 live in village (28.0%).

**Table 10: Distribution of the sample according to type of residence of sample**

<b>Variable</b>	<b>N</b>	<b>%</b>
City	174	37.7
Camp	158	34.3
Village	129	28.0
<b>Total</b>	<b>461</b>	<b>100.0</b>

The following table shows that; 6 of childbearing age women of the study sample were not educated (1.3%), 17 of sample were educated to primary school (3.7%), 69 were to preparatory level (15.0%), 180 of sample were to secondary (39.0%), 74 were educated to diploma level (16.1%), 25 of sample were educated to the university level (23.9%), and 5 were educated to the post graduate level (1.1%).

**Table 11: Description of sample according to level of education**

<b>Variable</b>	<b>N</b>	<b>%</b>
<b>Not educated</b>	6	1.3
<b>Primary</b>	17	3.7
<b>Preparatory</b>	69	15.0
<b>Secondary</b>	180	39.0
<b>Diploma</b>	74	16.1
<b>University</b>	110	23.9
<b>Post graduate</b>	5	1.1
<b>Total</b>	<b>461</b>	<b>100.0</b>

The following table shows that; there were 70.3% of the study sample house wives, 24.1% were civil

employee, and 5.6% of the women were students.

Table 12: Description of sample according to job

Variable	N	%
House wife	324	70.3
Civil employee	111	24.1
Student	26	5.6
<b>Total</b>	<b>461</b>	<b>100.0</b>

The following table shows that; there were 180 of childbearing age women had family income 800 NIS and less than (39.0%), 93 family income was from 801-1500 NIS (20.2%), 74 of sample were from 1501-2000 (16.1%), 41 were from 2001-2500 NIS (8.9%), 73 were more than 2500 NIS (15.8%).

Table 13: Description of the sample according to family income  
“NIS”

Family income by 'NIS'	N	%
800 NIS and less than	180	39.0
801 - 1500 NIS	93	20.2
1501 – 2000	74	16.1
2001 – 2500	41	8.9
More than 2500 NIS	73	15.8
<b>Total</b>	<b>461</b>	<b>100.0</b>

## 5.2 Prevalence of depression and anxiety among the study sample

### 5.2.1 Prevalence of depression among the study sample:

As shown in the following table, there were 305 (66.2%) of the study sample of the childbearing age women were had no depression "0– 21 total scores", 139 (30.2%) had moderate depression "22– 42 scores", and 17 (3.7%) of them were had sever depression "43– 63 scores".

Table 14: Prevalence of depression among the study sample

Variable	N	%
No depression "0– 21 scores"	305	66.2
Moderate depression "22– 42 scores"	139	30.2
Severe depression "43– 63 scores"	17	3.7
Total	461	100

### 5.2.2 Prevalence of anxiety among the study sample:

As shown in the following table, there were 27 (5.9%) of the study sample of the childbearing age women were had no anxiety "0– 13 total scores", 209 (45.3%) had mild anxiety "14– 26 scores", 192 (41.6%) were had moderate anxiety "27– 36 scores", and 33 (7.2%) of the study sample were had sever anxiety "37– 50 scores".

Table 15: Prevalence of anxiety among the study sample

Variable	N	%
No anxiety "0– 13 scores"	27	5.9
Mild anxiety "14– 26 scores"	209	45.3
Moderate anxiety "27– 36 scores"	192	41.6
Severe anxiety "37– 50 scores"	33	7.2
Total	461	100

### 5.2.3 The relation between depression and anxiety among the study sample:

As shown in the following table, there were positive significant correlation between depression and anxiety among the study sample of childbearing age women (Person's correlation "R"= 0.548, P= 0.001). That means the high incidence of depression will

combined with high incidence of anxiety, and high incidence of anxiety will combined with high incidence of depression among the study sample of childbearing age women, and reversible is right.

Table 16: Correlation between depression and anxiety among the study sample

Variable	Anxiety
Depression	0.548 ***

\*\*\*p< 0.001

### 5.3 Depression and anxiety according to socio-demographic variables among the study sample

#### 5.3.1 Depression and anxiety according to type of the clinics

The researcher adopts t-independent test to investigate the differences between UNRWA versus governmental clients in demonstrating depression and anxiety .

As shown in following table; the result found that no significant differences in depression (t= 0.230, p= 0.818) and anxiety (t= 0.079, p= 0.937) according to types of clinic.

Table 17: Independent t-test comparing means of depression and anxiety according to type of the clinic

	Governmental N = 270		UNRWA N = 191		T- value Df= 459	Sig. Level
	Mean	SD	Mean	SD		
<b>Depression</b>	18.58	9.695	18.35	11.795	0.230	0.818
<b>Anxiety</b>	26.03	6.542	25.98	7.828	0.079	0.937

\*\*\*p< 0.001

\*\*p< 0.01

\*p< 0.05

### 5.3.2 Depression and anxiety according to age of the study sample:

In order to investigate the difference in depression and anxiety according to age of the study sample (15 – 24 years, 25 – 34, or 35 – 44 years) the researcher demonstrate one-way ANOVA analysis. The following table shows that: there were no significant differences in depression ( $f = 0.369$ ;  $P = 0.692$ ) and anxiety ( $f = 2.185$ ;  $P = 0.114$ ) according to the groups of ages of the study sample of the childbearing age women.

Table18: One-way ANOVA comparing depression and anxiety according to age



As shown in the following table; the group of divorced childbearing age women were significantly higher in depression and anxiety than married and single women of the study sample.

Table 20: Means of depression and anxiety according to marital status

Variable		N	Mean	S.D
Depression	Married	408	17.92	9.844
	Single	37	19.24	13.202
	Divorced	7	38.71	15.521
	Widowed	9	25.22	11.903
Anxiety	Married	408	25.80	7.003
	Single	37	25.86	7.667
	Divorced	7	35.42	5.223
	Widowed	9	29.00	4.949

#### 5.3.4 Depression and anxiety according to time of last delivery of the study sample:

One-way ANOVA analysis was demonstrated to investigate the differences in depression and anxiety according to time of last delivery of the study sample (3 months and less, 4– 6 months, 7– 12 months, 1 – 2 years, more than 2 – 5 years, or more than 5 years).

The following table shows that: there were no significant differences in depression ( $f=1.013$ ;  $P= 0.410$ ) and anxiety ( $f = 0.506$ ;  $P= 0.772$ ) according to the last delivery of the study sample.

Table 21: One-way ANOVA comparing depression and anxiety according to time of last delivery

Variable	Source of variance	Sum of Squares	Df	Mean Square	F- value	Sig. Level
Depression	Between Groups	516.023	5	103.205	1.013	0.410
	Within Groups	40055.906	393	101.923		
	Total	40571.930	398			
Anxiety	Between Groups	125.067	5	25.013	0.506	0.772
	Within Groups	19431.685	393	49.444		
	Total	19556.752	398			

\*\*\* $p < 0.001$

\*\* $p < 0.01$

\* $p < 0.05$

#### 5.3.5 Depression and anxiety and type of residence (city-camp-village):

One-Way ANOVA analysis was used to study the differences between depression and anxiety according to the type of residence “City-Camp-Village”. As shown in the following table; there were no significant differences between the means of depression ( $f = 0.296$ ;  $P = 0.744$ ) and anxiety ( $f = 1.472$ ;  $P = 0.231$ ) according to the type of residence of the study sample.

**Table 22: One-way ANOVA comparing depression and anxiety according to type of residence**

<b>Variab le</b>	<b>Source of variance</b>	<b>Sum of Squares</b>	<b>Df</b>	<b>Mean Square</b>	<b>F- value</b>	<b>Sig. Level</b>
<b>Depression</b>	Between Groups	66.848	2	33.424	0.296	0.744
	Within Groups	51658.311	458	112.791		
	Total	51725.158	460			
<b>Anxiety</b>	Between Groups	147.902	2	73.951	1.472	0.231
	Within Groups	23010.992	458	50.242		
	Total	23158.894	460			

\*\*\* $p < 0.001$

\*\* $p < 0.01$

\* $p < 0.05$

### 5.3.6 Depression and anxiety according to the size of family:

In order to study the differences between depression and anxiety according to size of family (4 and less, 5-7, 8 and above) of the childbearing age women we used one-way ANOVA analysis. As shown in the following table; the results found that there were no significant differences between the means of any depression ( $f = 1.250$ ;  $P = 0.288$ ) and anxiety ( $f = 0.803$ ;  $P = 0.449$ ) according to size of family.

**Table 23: One-way ANOVA comparing depression and anxiety according to size of family**

<b>Variab le</b>	<b>Source of variance</b>	<b>Sum of Squares</b>	<b>Df</b>	<b>Mean Square</b>	<b>F- value</b>	<b>Sig. Level</b>
<b>Depression</b>	Between Groups	280.764	2	140.382	1.250	0.288
	Within Groups	51444.395	458	112.324		

	Total	51725.158	460			
<b>Anxiety</b>	Between Groups	80.911	2	40.456	0.803	0.449
	Within Groups	23077.982	458	50.389		
	Total	23158.894	460			

\*\*\*p< 0.001

\*\*p< 0.01

\*p< 0.05

### 5.3.7 Depression and anxiety according to educational levels:

One-Way analysis was used to study the differences between depression and anxiety according to levels of education of the study sample “not educated - primary - preparatory – secondary – diploma - university degree – Post graduate”.

As shown in the following table; there were a significant differences between the means of depression ( $f = 2.827$ ;  $P = 0.016$ ) and anxiety ( $f = 2.849$ ;  $P = 0.015$ ) according to educational level of the study sample, in favor to low educational level (not educated and primary level education)

**Table 24: One-way ANOVA comparing depression and anxiety according to educational level**

<b>Variab le</b>	<b>Source of variance</b>	<b>Sum of Squares</b>	<b>Df</b>	<b>Mean Square</b>	<b>F- value</b>	<b>Sig- Level</b>
<b>Depression</b>	Between Groups	1558.384	5	311.677	2.827	* 0.016
	Within Groups	50166.775	455	110.257		
	Total	51725.158	460			
<b>Anxiety</b>	Between Groups	703.009	5	140.602	2.849	* 0.015
	Within Groups	22455.884	455	49.354		
	Total	23158.894	460			

\*\*\*p< 0.001

\*\*p< 0.01

\*p< 0.05

Post –hoc analysis using Scheffee statistical test was done and indicated; the means of depression and anxiety according to educational level of the study sample “Not educated - Primary - Preparatory – Secondary – Diploma - University Degree – Post graduate”, as shown in the following table:

As shown in the following table; there were nearly negative correlation between depression and anxiety and the educational level of the study sample. in other words the childbearing age women with low level of education (not educated and primary school) were significantly more depressed and anxious than other groups of the study sample.

Table 25: Means of depression and anxiety according to educational level

Variable		N	Mean	S.D
<b>Depression</b>	Not educated	6	29.50	12.373
	Primary	17	22.00	14.645
	Preparatory	69	19.27	11.205
	Secondary	180	19.13	10.431
	Diploma	74	17.41	10.314
	University	115	16.58	9.452
<b>Anxiety</b>	Not educated	6	28.50	6.284
	Primary	17	30.23	6.932
	Preparatory	69	25.98	7.369
	Secondary	180	26.76	6.253
	Diploma	74	24.63	6.847
	University	115	24.99	8.042





# **Chapter Six**

## **Implications & Recommendations**

## Chapter Six

### Implications and Recommendation

This chapter introduced the main results that achieved in chapter five and its discussion insight the previous studies. Furthermore, its important here to clarify the results and its relation with other studies that may be helpful in supporting our findings. However, we will put on the hand some of implications and recommendation regarding the childbearing age women that are likely to be taken in consideration in the application of the future building. Also, recommendation for further research will be provided on the basis of the results of the current study.

#### 6.1 Main results

- The results of this study found that there were 139 (30.2%) of the study sample were had moderate depression, and 17 (3.7%) were had sever depression. In addition there were 192 (41.6%) were had moderate anxiety, and 33 (7.2%) of the study sample were had sever anxiety.
- The results found that there were positive significant correlation between depression and anxiety among the study sample of childbearing age women (Person's correlation "R"= 0.548, P= 0.001).
- The result found that there were no significant differences in depression ( $t= 0.230$ ,  $p= 0.818$ ) and anxiety ( $t= 0.079$ ,  $p= 0.937$ ) according to types of clinics.
- There were no significant differences in depression ( $f= 0.369$ ;  $P= 0.692$ ) and anxiety ( $f= 2.185$ ;  $P= 0.114$ ) according to the groups of ages of the study sample of the childbearing age women.
- There were no significant differences in depression ( $f=1.013$ ;  $P= 0.410$ ) and anxiety ( $f= 0.506$ ;  $P= 0.772$ ) according to the last delivery of the study sample.
- there were no significant differences in depression ( $f= 0.296$ ;  $P= 0.744$ ) and anxiety ( $f= 1.472$ ;  $P= 0.231$ ) according to the type of residence of the study sample.
- the results showed that there were no significant differences in depression ( $f= 1.250$ ;  $P= 0.288$ ) and anxiety ( $f= 0.803$ ;  $P= 0.449$ ) according to size of family.
- The results showed that there were no significant differences in depression ( $f= 1.606$ ;  $P= 0.202$ ) and anxiety ( $f= 2.286$ ;  $P= 0.103$ ) according to job of the study sample.
- There were a significant differences in depression ( $f=10.798$ ;  $P= 0.001$ ) and anxiety ( $f= 4.887$ ;  $P= 0.002$ ) according to the marital status of the study sample. And according to Post –hoc analysis using scheffee

statistical test the results revealed that there were divorced and widowed childbearing age women significantly higher in depression and anxiety than married and single women of the study sample.

- there were a significant differences in depression ( $f = 2.827$ ;  $P = 0.016$ ) and anxiety ( $f = 2.849$ ;  $P = 0.015$ ) according to educational level of the study sample. And according to scheffee statistical test the results revealed that there were nearly negative correlation between depression and anxiety and the educational level of the study sample. in other words the childbearing age women with low level of education (not educated and primary school) were significantly demonstrated more level of depression and anxiety than other groups of the study sample.
- The results showed that there were a significant differences in depression ( $f = 3.035$ ;  $P = 0.017$ ) and anxiety ( $f = 6.582$ ;  $P = 0.001$ ) according to family income of the study. And according to scheffee statistical test the results revealed that there were negative correlation in depression and anxiety and the family income of the study sample. That means the decreasing of family income lead to increasing depression and anxiety.

## **6.2 Discussion**

The results of this study find that there were 139 (30.2%) of the study sample were had moderate depression, and 17 (3.7%) were had sever depression. In addition there were 192 (41.6%) were had moderate anxiety, and 33 (7.2%) of the study sample were had sever anxiety, which means approximately one of three of the study sample had moderate and sever depression (33.9%). And approximately half of the sample were had moderate and sever anxiety (48.8%) of the study sample of the childbearing age women.

These results were differ to the results of another studies, where the results of this study were higher than the results of the studies by Cleland et al. (2007) which found that; (20.8%) reported 'caseness' for depression, and (32.7%) reported anxiety among primary care patients ., and the results by Kroenke et al. (2007) which found that (8.6%) had posttraumatic stress disorder, (7.6%) had a generalized anxiety disorder, (6.8%) had a panic disorder, and (6.2%) had a social anxiety disorder among clinisc patients. While Cury and Menezes (2007) find the prevalence of antenatal depression was 19.6%. Decreased in Limlomwongse et al. (2006) were found that the prevalence of depressive moods was 20.5% during pregnancy and 16.8% at postpartum. Decreased in Felice et al. (2004) were the prevalence of depression was 15.5% at booking, 11.1% in the third trimester and 8.7% postpartum in Maltese women. And Rich-Edwards et al. (2006) found 9% depressive symptoms in mid-pregnancy and 8% in postpartum women. Evans et al. (2001) 13.5% women scored above

threshold for probable depression at 32 weeks of pregnancy, 9.1% at 8 weeks postpartum, and 1.6% throughout.

In addition; Bergant et al. (1998, 1999), Agoub et al. (2005), Adewuya et al. (2005) respectively was diagnosed depression in 20.0%, 18.7% and 14.6 % after childbirth. Stuart et al. (1998) find depression in 23.3% of women at 14 weeks and 18.7% at 30 weeks postpartum. Where Olfson et al. (2000) find that major depression (18.9%) primary care centers patients. Stuart et al. (1998) find that the prevalence of anxiety in women was 8.7% at 14 weeks and 16.8% at 30 weeks postpartum. In addition; Olfson et al. (2000) generalized anxiety (14.8%), panic (8.3%) disorders and suicidal ideation (7.1%) were highly prevalent primary care centers patients. Liselott et al. (2006) revealed that anxiety were prevalent in 16.5% of postpartal women versus 29.2% of pregnant women. Where lower than the results by Afana et al. (2003) were found 73% of patients visiting primary care clinics in the Gaza Strip had psychiatric symptoms consistent with psychiatric disorders. And the prevalence of mental health problems among females was higher (76.8%).

While agree to the results by Barnett et al. (1996) which found that 42% of women had significant depressive symptoms in the third trimester in adolescents women. Cury and Menezes (2007) found that antenatal anxiety, state and trait were 59.5% and 45.3%, respectively. And Ludermir et al. (2008) which found that the prevalence of mental disorders was 49.0% among childbearing age women.

The researcher sees that the childbearing age women differ in some ways due to their specific issues, for example, problematic aspects of menstruation, pregnancy, the mothering role, and midlife transition. In addition women are vulnerable to certain kinds of traumata, as a result of their childbearing capacity. The results found that there were positive significant correlation between depression and anxiety among the study sample of childbearing age women. That means the high incidence of depression will combine with high incidence of anxiety, and high incidence of anxiety will combine with high incidence of depression among the study sample of childbearing age women, and reversible is right.

These results were agree to results by Stuart et al. (1998) which found that Depression was have a strong correlation with the State Anxiety Scale of the State-Trait Anxiety post partum. Afana et al. (2003) found the

patients who visiting primary care clinics in the Gaza Strip had psychiatric symptoms consistent with psychiatric disorders.

Rubertsson et al. (2005) found a correlation between the stressful life events and depression in pregnancy. In addition The study by Liselott et al. (2006) was revealed the absence of a previous psychiatric disorder was significantly associated with a postpartum recovery of depression or anxiety.

The researcher sees that the symptoms of depression are similar to the symptoms of anxiety, e.g. mood, irritability, self-dissatisfaction, physiological disorders, and sleep disorders therefore; it's a logical issue in this study to find that there is positive correlation between depression and anxiety. In other words the high level of depression often will associate with the same level of anxiety among the childbearing age women in the Gaza strip.

The results showed that there were no significant differences in depression and anxiety according to the age groups of the study sample of the childbearing age women. All age groups of the study sample demonstrate the same level of depression and anxiety.

The main age of onset for major depressive disorder is about 40 years. 50% of all patients have an onset between 20 and 50 years old. Major depressive disorder can also begin in childhood or in old age. Recent epidemiological data suggest that the incidence of major depressive disorder may be increasing among people younger than 20 years of age (Sadock & Sadock, 2007: 529).

While the study by Scocco et al. (2008) were found that younger cohort. Barrett and Robbins (2007) found that Anxiety about health is greater among women who are younger. And Rich-Edwards et al. (2006) found that the young maternal age was associated with greater risk of antenatal and postpartum depressive symptoms, largely attributable to the prevalence of financial hardship, unwanted pregnancy, and lack of a partner. In addition; Börjesson et al. (2005) revealed that younger age was identified as risk factors for mental problems.

The researcher sees that the childbearing age women who experience childbearing processes such as menstruation, pregnancy, delivery, and motherhood, suffered from the same levels of pains and efforts in the all times of their lives.

There were no significant differences in depression and anxiety according to the last delivery of the study sample.

Depression during pregnancy, anxiety during pregnancy, experiencing stressful life events during pregnancy or the early puerperium, low levels of social support were the strongest predictors of postpartum depression (Robertson et al., 2004).

Studies by Rahman et al. (2003), Heh et al. (2004), Robertson et al. (2004), Daradkeh et al. (2006), Husain et al. (2006) and Adewuya et al. (2006) found reversible relation between social support and postnatal depressive symptoms

In our society ; after delivery women obtain a good care and adequate social support which decrease the levels of depression and anxiety.

There were no significant differences between the means of depression and anxiety according to the type of residence (city – camp - village) of the study sample. That means that the type of residence doesn't associate with a noticeable levels of depression and anxiety among the study sample of the childbearing age women.

In agree; Huang and Mathers (2001) which found depression in the same levels in the British and Taiwanese postnatal women.

While; Afana et al. (2004) found that the prevalence among females was higher (76.8%) than males (67%); Living in refugee camps was predictive of both anxiety and depression but, for depression, the difference comes from those living in the camps, who also define themselves as refugees.

Muhammad Gadit and Mugford (2007) study among households in three capital cities of Pakistan, were Lahore city had the highest level of depressives, as compared to Quetta and Karachi.

And Erickson et al. (1998) found that women who residing in France were significantly more likely to show signs and symptoms of depression than women residing in the USA.

The researcher attributes that to; the Gaza Strip is a narrow piece of land which a huge number of population live in, so that leads to boundaries removal between camps, villages and cities. In addition all population in the Gaza Strip experience the same circumstances(social, political, and economical).

The results showed that there were no significant differences between the means of any of depression and anxiety according to size of family.

While the study by Daradkeh et al. (2006) found a significant association between the amount and severity of stress and psychiatric morbidity with family violence. And Quinlivan et al. (2004) were revealed that the level of support at 6 months postpartum correlated significantly with depression score and with social class, but from the researcher point of view the size of family isn't considered to be a problem to the Palestinian woman in general , because motherhood is a source of happiness and proud for her.

The results showed that there were no significant differences in the means of depression and anxiety according to job (house wife – employee - student) of the study sample.

In our community; the economical problems cover the psychological ones , so when woman obtains a job this will lead to resolving of her economical problems and may be psychological. One's. In addition ; work for woman in our society play the main role in forming and enrich her life , having a good opportunity for freedom, in the opposite of the western woman who have several accesses to do that.

Templeton et al. (2003) Rubertsson et al. (2005) and Agoub et al. (2005)found that postnatal depression for women, associated with an unemployment.

While Wang et al. (2008) in the working population of women found that women, with high demand and low control didn't associate with any depressive or anxiety disorder.

This study found that there are a significant differences in depression and anxiety according to the marital status of the study sample. In favor to divorced and widowed childbearing age women. Divorced and widowed childbearing age women significantly higher in demonstrating depression and anxiety than married and single women of the study sample.

In agree; Afana et al. (2004) found that not being married is linked to depression. And agree to results of Lovisi et al. (2005), Adewuya et al. (2006), Limlomwongse et al. (2006) and Daradkeh et al. (2006) were

revealed that the factors associated with depression included; marital status being single, second wife, divorced, separated or widowed women.

In our community divorced women suffer from labeling and stigma, in addition they have a heightened sense of personal failure ,psychological problems(autonomy,loneliness,lowered self-esteem, and guilt), financial hardship problems, and single parent difficulties. Women going through divorce go through stages similar to the stages of grief experienced by persons in bereavement. Women 's feelings following the loss of relationship as "separation distress syndrome" which represents ways of adapting to and coping with loss. Templeton al. (2003) Rubertsson et al. (2005) and Agoub et al. (2005)found that postnatal depression for the women, linked with family marital problems.

There were a significant differences in depression and anxiety according to educational level of the study sample. The results revealed that there were negative correlation between depression and anxiety and the educational level of the study sample. in other words the childbearing age women with low level of education (not educated and primary school) were significantly had more level of depression and anxiety than other groups of the study sample.

In agree Afana et al. (2004) found that low educational level is a predictor of anxiety among Palestinian women. Scocco et al. (2008) found that the lifetime prevalence of suicide ideation, plans, and attempts was related to fewer years of education, and earlier onset age of suicide ideation. In addition; Journal of Pakistan Medical Association (2002), Lee et al. (2005), Lovisi et al. (2005) and Daradkeh et al. (2006) revealed that women with low levels of education were more likely to evidence depression. While; Small et al. (2003) found that there were no consistent associations with maternal education of the women.

The childbearing age women with low levels of education were not capable to adaptive with the changes of modern life, not able to use technology, read and write, which affect their coping strategies, so be more negative, which will lead to depression and anxiety.

The results showed that there were a significant differences in the means of depression and anxiety according to family income of the study. Which revealed that there were negative correlation in depression and anxiety and the family income of the study sample. That means the decreasing of family income leads to increasing of depression and anxiety.

The results is in agree to the results by Cury and Menezes (2007) which found that antenatal anxiety-trait and antenatal depression was associated with lower women's income among women attending a private clinics. Templeton et al. (2003) Rubertsson et al. (2005) and Agoub et al. (2005) found that postnatal depression for the women, linked with financial difficulties and bereavement. While; Small et al. (2003) found that there was no consistent associations found with family income or maternal education of the women. And Chen et al. (2004) found that participants with a psychiatric morbidity did not differ from those without in terms of income.

The researcher attributes that to; the lower of family income will not allow women satisfying their self and family needs, which lead to feel depressed and frustrated. In addition the relationship between impoverishment and mental illness is bi- directional. thus poverty will lead to mental illness which can worsen the economic circumstances of the woman and her family.

The study of Daradkeh et al. (2006) A significant association was found between the amount and severity of stress and psychiatric morbidity. Post-marital status (separated, divorced, widowed), woman's illiteracy, violent marital relationship, living independently, being in a non-cousin marriage, being a second wife, poor housing.

Quinlivan et al. (2004) found that a history of parental divorce in early childhood; exposure to family violence in early childhood; idealization of the pregnancy; low family income; a positive anxiety or depression subscale score; and a low level of education among teenage mothers.

### **6.3 Conclusion**

This study about the prevalence of depression and anxiety among the childbearing age women attending primary care centers. Depression defined as the following attributes (Beck, 1970: 6): A specific alteration in mood: sadness, loneliness, apathy. A negative self-concept associated with self-reproaches and self-blame.

Regressive and self-punitive wishes: desires to escape, hide, or die. Vegetative changes: anorexia, insomnia, loss of libido. Change in activity level: retardation or agitation.

Where anxiety defined as a signal that there is danger and that measures need to be taken (e.g., a fight or flight response) to protect oneself against that danger; both the danger perceived and the measures taken are considered appropriate (i.e., not exaggerated) in normal anxiety (Starcevic, 2005: 1)

However; the childbearing age women defined as women of reproductive age (from the first menstrual period "menarche" through menopause) (Varney et al, 2004:110), which operationally estimated by the researcher the women aged between (15 – 44 years old).

This study among the childbearing age women who attending primary care centers in the Gaza governorates

Primary health care system (PHC) is a major component of Palestinian health care system; this system has provided health care to all Palestinian people. In the Gaza Strip there are 58 Primary health care center sponsored by Ministry of Health, and 15 centers sponsored by UNRWA (MOH, 2006).

The results were indicated that approximately one of three of the study sample had moderate and severe depression (33.9%). And approximately half of the sample were had moderate and severe anxiety (48.8%) of the study sample of the childbearing age women.

The findings of the this study indicate that there were positive significant correlation between depression and anxiety among the study sample of childbearing age women. Which means that the high incidence of depression will combined with high incidence of anxiety. and reversible is right.

The result found that there were no significant differences in depression and anxiety according to the types of clinics (governmental - UNRWA).

In addition; There were no significant differences in depression and anxiety according to the age groups (15 – 24 years, 25 – 34, 35 – 44 years) of the study sample of the childbearing age women.

There were no significant differences between the means of depression and anxiety according to the type of residence "city- camp- village" of the study sample.

The results also showed that there were no significant differences between the means of any of depression and anxiety according to size of family (4 persons and less, 5-7, 8 and above) of the study sample. There were no significant differences in depression and anxiety according to the last delivery (3 months and less, 4– 6 months, 7– 12 months, 1 – 2 years, more than 2 – 5 years, or more than 5 years) of the study sample.

The results showed that there were no significant differences in the means of depression and anxiety according to job (house wives - employee – students) of the study sample. The researcher concludes that there were no significant differences in depression or anxiety according to type of clinics, age, type of residence, size of family, last delivery, or according to the job of the study sample. While; there were significant differences in depression and anxiety according to the marital status (married, single, divorced, or widowed). Divorced and widowed childbearing age women significantly demonstrated higher levels of depression and anxiety than married and single women of the study sample.

There were significant differences between the means of depression and anxiety according to educational level of the study sample “Not educated - Primary - Preparatory – Secondary – Diploma - University Degree – Post graduate”. the results showed that there were nearly negative correlation between depression and anxiety according to the educational levels of the study sample. in other words the childbearing age women with low level of education (not educated and primary school) significantly reflected more level of depression and anxiety than other groups of the study sample.

In addition; the results showed that there were significant differences in the means of depression and anxiety according to family income (800 NIS and less than, 801 – 1500, 1501- 2000, 2001- 2500, and more than 2500 NIS) of the study sample. Where the results revealed that there were negative correlation between depression and anxiety and the family income of the study sample. That means the decreasing of family income lead to increasing depression and anxiety.

In other words; divorced and widowed women (marital status), low family income, low educational level, were associated with depression and anxiety among the study sample of the childbearing age women attending primary care centers in the Gaza governorates.

## 6.4 Recommendations

Insight of the study results the researcher introduced the following recommendations:

- The ratio of the study sample suffering from depression and anxiety is noticeable and couldn't be neglected.
- Provide an overview of current understanding of this group of population, their needs, and the provision of services to meet these needs.
- The policy must provide a comprehensive and contemporary account of community services, approaches, interventions and teaching programs.
- Provide medical counseling, such as abortion counseling, postmastectomy and post hysterectomy counseling for women.
- Provide sociopsychological counseling for women going through divorce and widowhood, who often need practical information concerning their legal rights, economic resources, and sources of social support. A group work with divorced and widowed women may provide protected environment to develop insight and courage to deal effectively with their situations.
- Provide adequate educational system , including training programs for women to help her developing her financial sources.
- Development of mental health professionals, especially for women.
- The researcher suggest three big centers to be built in Gaza city, middle region, and southern governorates to provide medical, social, and psychological counseling, with a team of professionals (physicians, therapists, counselors, social workers, and lawyers) to deal with women's issues.
- In the end the researcher recommends to operate more researches about women in our society such as: mental health problems among childbearing age women due to medical problems such as; recurrent abortion, mastectomy and hysterectomy especially among young age women.

# References

## References

- Abas, M. A. & Broadhead, J. C. (1997). Depression and anxiety among women in an urban setting in Zimbabwe. *Psychol Med*. 27(1): pp 59-71
- Abu Hein, F. Kh. (2007). Palestinian version of beck depression inventory, study among the students of Al-aqsa University., Gaza Strip.
- Adewuya AO, Fatoye FO, Ola BA, Ijaodola OR, Ibigbami SM. (2005). Sociodemographic and obstetric risk factors for postpartum depressive symptoms in Nigerian women. *J Psychiatr Pract*, 11(5): pp 353-358.
- Adewuya, A.; Ola, B.; Aloba, O.; Dada, A.& Fasoto, O. (2006). Prevalence and correlates of depression in late pregnancy among Nigerian women. *Interscience journal*. Volume 24, Issue 1 , Pp 15-21.
- Afana A-H.; Dalgard OS.; Hauff E.; Bjertness E.; Grunfeld B. (2002). The prevalence and associated sociodemographic variables of post-traumatic stress disorder among patient attending primary health care center in the Gaza Strip. *Journal of Refugees Studies*, 15(3).
- Afana A-H.; Dalgard OS.; Hauff E.; Bjertness E.; Grunfeld B.; Neda T. (2003). The Assessment of mental disorders in primary health care clinics in the Gaza Strip. *Primary health care research and development* (4).
- Afana A-H.; Lawler J.; El Sarraj E. (2004). Gender and other predictors of anxiety and depression in a sample of people visiting primary care clinics in an area of political conflict: Gaza Strip. *RAHAT medical journal*.
- Affonso, Dyanne D.; Liu-Chiang, Chong-Yeu; Mayberry, Linda J. (1999). Worry: conceptual dimensions and prevalence to childbearing women. *Health Care For Women International*, Volume 20, Number 3, pp. 227-236 (10).
- Agoub M, Moussaoui D, Battas O. (2005). Prevalence of postpartum depression in a Moroccan sample. *Arch Womens Ment Health*, 8(1): pp 37-43.
- Altshuler LL, Hendrick V, Cohen LS. (1998). Course of mood and anxiety disorders during pregnancy and the postpartum period. *J Clin Psychiatry*. 1998;59 Suppl 2: pp 29-33.
- Altshuler LL.; Hendrick V.; Cohen Ls. (2000). An Update on Mood and Anxiety Disorders During Pregnancy and the Postpartum Period. *Prim Care Companion J Clin Psychiatry*, 2(6): pp 217-222.
- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.) Washington, DC: USA.
- American Psychiatric Association. (2000). *Diagnostic and Statistical Manual of Mental Disorders*. 4th ed. Text Rev. Washington, DC: American Psychiatric Association.
- Austin, E.L., Andersen, R. & Gelberg, L. (2007) Ethnic differences in the correlates of mental distress among homeless women. *Womens Health Issues*. Dec 7 [Epub ahead of print].
- Avison, William R.; McLeod, Jane D. and Pescosolido, Bernice A. (2007) .*Mental Health, Social Mirror*, Springer Science and Business Media, LLC, USA.
- Barnett B, Joffe A, Duggan AK, Wilson MD, Repke JT. (1996). Depressive symptoms, stress, and social support in pregnant and postpartum adolescents. *Arch Pediatr Adolesc Med*, 150 (1): pp 64-69.
- Barrett, A. E. and Robbins, C. (2007) The Multiple Sources of Womens Aging Anxiety and Their Relationship With Psychological Distress. *Journal of Aging Health*. Dec 18 [Epub ahead of print].
- Beck, Aaron T.(1970). *Depression "Causes and Treatment"*, First University of Pennsylvania Press edition, Philadelphia, USA.
- Becker, Joseph; Kleinman, Arthur (1991) *Psychosocial Aspects of Depression*, Lawrence Erlbaum Associates. 254 pgs.
- Bennett, V.R. & Brown, L.K. (2005). *Myles textbook for midwives*. 13th edition. Churchill Livingstone.
- Bergant A.; Nguyen T.; Moser R.; Ulmer H. (1998). Prevalence of depressive disorders in early puerperium. *Gynakol Geburtshilfliche Rundsch*, 38(4): pp 232-237.
- Bergant AM, Heim K, Ulmer H, Illmensee K. (1999). Early postnatal depressive mood: associations with obstetric and psychosocial factors. *J Psychosom Res*, 46(4): pp 391-394.

- Biaggio, M. & Hersen, M. (2002). *Issues in the psychology of women*. Kluwer Academic Publishers, New York.
- Boden, J.M.; Fergusson, D.M. & John, H. L. (2007). Early motherhood and subsequent life outcomes., *Journal of Child Psychology and Psychiatry*. Dec,15.
- Bon, Annu. (2007). Types of Depression. *EzineArticles*. Retrieved, <http://ezinearticles.com>.
- Börjesson K.; Ruppert S.; Bågedahl-Strindlund M. (2005). A longitudinal study of psychiatric symptoms in primiparous women: relation to personality disorders and sociodemographic factors. *Archives of women's mental health journal*. Vol. 8, no. 4, pp 232-242.
- Casey P. (2000). A longitudinal study of cognitive performance during pregnancy and new motherhood. *Archives of women's mental health journal*. Volume 3, Number 2, pp 65-76
- Chang SC.; Chen Ch. (2004). The application of music therapy in maternity nursing. *Hu Li Za Zhi*, 51(5): pp 61-66.
- Chen T.; Chang S.; Tsai C.; Juang, K. (2004). Prevalence of depressive and anxiety disorders in an assisted reproductive technique clinic. *Human Reproduction*. 19(10): pp 2313-2318.
- Chumlea, W.C; Schubert, C.M.; Roche, A.F; Kulin, H.E.; Lee, P.A.; Himes, J.H. & Sun, S.S. (2003). Age at menarche and racial comparisons in US girls., *Pediatrics*. Vol. 111 No. Pp. 110-113.
- Cleland, JA., Lee, AJ. & Hall, S. (2007) Associations of depression and anxiety with gender, age, health-related quality of life and symptoms in primary care COPD patients. *Fam Pract*. Jun;24(3): pp 217-23.
- Cury A. F.; Menezes R. P. (2007). Prevalence of anxiety and depression during pregnancy in a private setting sample. *Arch Women's Ment Health*. 10(1): pp 25-32.
- Daradkeh T.K.; Alawan A.; Al Ma'aitah R.; Otoom S.A. (2006). Psychiatric morbidity and its sociodemographic correlates among women in Irbid, Jordan. *Eastern Mediterranean Health Journal*, Vol. 12 (Supplement 2).
- Davidson, Richard J. (2000). *Anxiety, Depression and Emotion*, 1<sup>st</sup> Edition, Oxford University Press, New York.
- Dayan, J.; Creveuil, C.; Herlicoviez, M.; Herbel, C.; Baranger, E.; Savoye, C.; Thouin, A. (2002). Role of Anxiety and Depression in the Onset of Spontaneous Preterm Labor. *American Journal of Epidemiology*, Vol. 155, No. 4 : pp 293-301
- Denni, C.L. (2004). Can we identify mothers at risk for postpartum depression in the immediate postpartum period using the Edinburgh Postnatal Depression Scale? *J Affect Disorder*, 78(2): pp 163-169
- Dennis, C.L. & Creedy, D. (2004). Psychosocial and psychological interventions for preventing postpartum depression. *Cochrane Database Syst Rev*, 18;(4):CD001134.
- Dennis, C.L.; Ross, L.E. & Grigoriadis, S. (2007). Psychosocial and psychological interventions for treating antenatal depression. *Cochrane Database Syst Rev*, 18;(3):CD006309.
- Duran, B.; Sanders, M. & Skipper, B.; Waitzkin, H.; Halinka, L.; Paine, S. Yager, J. (2004). Prevalence and Correlates of Mental Disorders Among Native American Women in Primary Care. *American Journal Public Health*. 94(1): pp 71-77.
- Duran, Bonnie; Sanders, Margaret; Skipper, Betty; Waitzkin, Howard; Malcoe, Lorraine Halinka; Paine, Susan and Yager, Joel. (2004). Prevalence and Correlates of Mental Disorders Among Native American Women in Primary Care. *American Journal of Public Health*, January 2004, Vol 94, No. 1., Pp 71-77.
- Erickson, C.; Sasha, D. & Barab, A. (1998) depression and anxiety among Cambodian refugees women in France and the United state, *Issues in Mental Health Nursing*, Volume 19, Issue 6 October 1998 , pp 541 – 556.
- Evans, J.; Heron, J.; Francomb, H.; Oke, S. & Golding J. (2001). Cohort study of depressed mood during pregnancy and after childbirth. *BMJ*, 323 (7307):257.
- Felice E, Saliba J, Grech V, Cox J. (2004). Prevalence rates and psychosocial characteristics associated with depression in pregnancy and postpartum in Maltese women. *J Affect Disord*, 15;82(2): pp 297-301.
- Friedman, H. S. & Silver, R. C. (2007). *Foundations of health psychology*, Oxford University Press, Inc. , New York.

- Goldman, H. H. (2000). Review of the general psychiatry, 5<sup>th</sup> Edition, Baltimore, Maryland, New York.
- Goodwin, RD., Olfson, M., Shea, S., Lantigua, RA., Carrasquillo, O., Gameroff, MJ. & Weissman MM. (2003) Asthma and mental disorders in primary care. *Gen Hosp Psychiatry*. Nov-Dec;25(6): pp 479-483.
- Greco, N. & Zajecka, J. M. (2000). Evaluating and Treating Comorbid Depression and Anxiety in Women. *Women Health Primary Care*. 3(5): pp 349-360.
- Greco, Nicholas & Zajecka, John M. (2000). Evaluating and treating comorbid depression and anxiety in women "A systematic approach", *Women's Health in Primary Care*, Vol. 3, No 5. Pp 349- 360.
- Hallberg, P.& Sjöblom, V. (2005). The use of selective serotonin reuptake inhibitors during pregnancy and breast-feeding: a review and clinical aspects. *J Clin Psychopharmacol*, 25(1): pp 59-73.
- Heh, S.S.; Coombes, L.& Bartlett, H. (2004). The association between depressive symptoms and social support in Taiwanese women during the month. *International Journal of Nursing Studies*, 41(5): pp 573-579.
- Heilemann M, Frutos L, Lee K, Kury FS. (2004) Protective strength factors, resources, and risks in relation to depressive symptoms among childbearing women of Mexican descent. *Health Care for Women International*.;25: pp 88-106.
- Heron J, O'Connor TG, Evans J, Golding J, Glover V; The ALSPAC Study Team. (2004). The course of anxiety and depression through pregnancy and the postpartum in a community sample. *J Affect Disord*, 80(1): pp 65-73.
- Howard LM.; Hoffbrand S.; Henshaw C, Boath L, Bradley E. (2005). Antidepressant prevention of postnatal depression. *Cochrane Database Syst Rev.*, 18;(2):CD004363
- Huang YC.; Mathers N. (2001). Postnatal depression -- biological or cultural? A comparative study of postnatal women in the UK and Taiwan. *J Adv Nurs*, 33(3): pp 279-287.
- Husain N, Bevc I, Husain M, Chaudhry IB, Atif N, Rahman A. (2006). Prevalence and social correlates of postnatal depression in a low income country. *Archives of Women's Mental Health journal*, 9(4): pp 197-202.
- Josefsson A.; Sydsjö G. (2007). A follow-up study of postpartum depressed women: recurrent maternal depressive symptoms and child behavior after four years. *Archives of Women's Mental Health journal*. Volume 10, number 4, pp 141-145.
- Journal of Pakistan Medical Association .(2002). Prevalence of and factors associated with anxiety and depression among women in a lower middle class semi-urban community of Karachi, Pakistan. Department of Community Health Sciences, The Aga Khan University, Karachi.; 52(11): pp 513-517.
- Kay, Jerald and Tasman, Allan. (2006). Essentials of psychiatry. John Wiley & Sons, Ltd, England.
- Klossner, N. J. (2005). Introductory Maternity Nursing., Lippincott Williams & Wilkins, New York.
- Kroenke, K., Spitzer, RL., Williams, JB., Monahan PO. & Löwe, B.(2007) Anxiety disorders in primary care: prevalence, impairment, comorbidity, and detection. *Ann Intern Med*. Mar 6;146(5): pp 317-325.
- Lee, L.C.; Casanueva, C. E.& Martin, S. L. (2005) Depression among Female Family Planning Patients: Prevalence, Risk Factors, and Use of Mental Health Services, *Journal of Women's Health*. 14(3): pp 225-232.
- Levine RE.; Oandasan AP.; Primeau LA.; Berenson AB.; (2003). Anxiety disorders during pregnancy and postpartum. *Am J Perinatol*, 20(5): pp 239-48.
- Limlomwongse N, Liabsuetrakul T. (2006). Cohort study of depressive moods in Thai women during late pregnancy and 6-8 weeks of postpartum using the Edinburgh Postnatal Depression Scale (EPDS). *Arch Womens Ment Health*, 9(3): pp 131-138.
- Liselott A.; Poromaa S.; Marianne W.; Monica A.; Marie B. (2006) Depression and anxiety during pregnancy and six months postpartum: a follow-up study. *Acta Obstetrica et Gynecologica Scandinavica*, Volume 85, Number 8, July (8), pp 937- 944.
- Lovisi G.M.; López J.R.; Coutinho E.S.; Patel V. (2005) Poverty, violence and depression during pregnancy: a survey of mothers attending a public hospital in Brazil. *Psychol Med*. 35(10): pp 1485-1492

- Ludermir, A.B.; Schraiber, L.B.; D'Oliveira, A.F.; França-Junior, I. & Jansen, H.A. (2008). Violence against women by their intimate partner and common mental disorders., *Soc Sci Med*. Jan 4.
- Marsella, A. (1994). Depression. New York: Wiley.
- McLachlan H, Waldenström U. (2005). Childbirth experiences in australia of women born in Turkey, Vietnam, and Australia. *Birth*, 32(4): pp 272- 282.
- Merari D.; Chetrit A.; Modan B. (2002). Emotional reactions and attitudes prior to in vitro fertilization: An inter-spouse study. *Psychology & Health*, Volume 17, Issue, pp 629 – 640.
- Miller, R.L.; Pallant, J.F.& Negri, L.M. (2006). Anxiety and stress in the postpartum: is there more to postnatal distress than depression? *BMC Psychiatry*, 24; pp 6- 12.
- MOH. (2006): Health Status in Palestine 2005. Annual Report. *Palestinian Ministry of Health*, Gaza Strip.
- Moran, T. E.; O'Hara M. W. (2006). A partner-rating scale of postpartum depression: The Edinburgh Postnatal Depression Scale – Partner (EPDS-P). *Archives of women's mental health journal*. Vol. 9, no. 4, pp 173-180.
- Muhammad Gadit, A.A.& Mugford, G. (2007). Prevalence of depression among households in three capital cities of Pakistan: Need to revise the mental health policy. *Journal PLoS ONE* 2(2).
- Muhammad Gadit, Amin A. & Mugford, Gerry. (2007). Prevalence of Depression among Households in Three Capital Cities of Pakistan: Need to Revise the Mental Health Policy, *PLoS ONE Journal* 2(2). Pp 1– 5.
- Nelson, N. (2007). Menstruation and the Menstrual Cycle. National Institute of Child Health & Human Development. American College of Obstetricians and Gynecologists (ACOG) Resource Center.
- Olfson, M.; Shea S.; Feder A.; Fuentes M.; Nomura Y.; Gameroff M.; Myrna M. (2000). Prevalence of anxiety, depression, and substance use disorders in an urban general medicine practice, *Arch Fam Med*. Vol. 9 No. 9.
- Pedersen, C.A. (1999). Postpartum mood and anxiety disorders: a guide for the nonpsychiatric clinician with an aside on thyroid associations with postpartum mood. *Thyroid*, 9(7): pp 691- 697.
- Piotrowski, Nancy A. (2005) *Psychology Basics*, University of California, Berkeley, Salem Press, Inc., Pasadena, California.
- Poikkeus, P.; Saisto T.; Unkila-Kallio L.; Punamaki R.; Repokari L.; Vilksa S.; Tiitinen A.; Tulppala M. (2006). Fear of childbirth and pregnancy-related anxiety in women conceiving with assisted reproduction. *Obstetrics & Gynecology*,108: pp 70- 76.
- Quinlivan, J. A.; Tan, L.H.; Steele, A. & Black, K. (2004). Impact of demographic factors, early family relationships and depressive symptomatology in teenage pregnancy. *Aust N Z J Psychiatry*, 38(4):pp 197- 203.
- Quinlivan, J.A.; Luehr, B. & Evans, S. F. (2004). Teenage mother's predictions of their support levels before and actual support levels after having a child. *J Pediatr Adolesc Gynecol*, 17(4): pp 273- 278.
- Rahman, A., Iqbal, Z., Harrington, R. (2003). Life events, social support and depression in childbirth: perspectives from a rural community in the developing world. *Psychol Med*, 33(7): pp 1161-1167.
- Raphael, B., Taylor, M. & McAndrew, V. (2008) Women, catastrophe and mental health. *crashe. Aust N Z J Psychiatry*. Jan;42(1): pp 13-23.
- Repokari, L.; Punamäki R.-L.; Poikkeus P.; Vilksa S.; Unkila-Kallio L.; Sinkkonen, J.; Almqvist F.; Tiitinen A.; Tulppala M. (2005). The impact of successful assisted reproduction treatment on female and male mental health during transition to parenthood: a prospective controlled study. *Oxford journals*, vol 20, no 11, pp 3228-3247.
- Rich-Edwards JW, Kleinman K, Abrams A, Harlow BL, McLaughlin TJ, Joffe, H, Gillman MW. (2006). Sociodemographic predictors of antenatal and postpartum depressive symptoms among women in a medical group practice. *J Epidemiol Community Health*, 60(3): pp 221-227.
- Robertson, E.; Grace S.; Wallington T.; Stewart DE. (2004). Antenatal risk factors for postpartum depression: a synthesis of recent literature. *Gen Hosp Psychiatry*, 26(4): pp 289-295.

- Roeckelein, J. E. (1998). Dictionary of theories, laws, and concepts in psychology., Greenwood Press, London.
- Rosenfeld, J. A. (2004). Women's health in mid-life "a primary care guide", Cambridge University Press, New York.
- Ross, L.E.& McLean, L.M. (2006). Anxiety disorders during pregnancy and the postpartum period: A systematic review. *J Clin Psychiatry*, 67(8): pp 1285- 1298.
- Rubertsson, C.; Wickberg, B.; Gustavsson, P.& Rådestad, I. (2005). Depressive symptoms in early pregnancy, two months and one year postpartum-prevalence and psychosocial risk factors in a national Swedish sample. *Arch Womens Ment Health*, 8(2): pp 97-104.
- Sadock, Benjamin James & Sadock, Virginia Alcott (2007). Kaplan & Sadock's Synopsis of Psychiatry: Behavioral Sciences/Clinical Psychiatry, 10th Edition, Lippincott Williams & Wilkins, New York.
- Sammour, Ayesh Mohamed (2002): "Prevalence and risk factors of postpartum depression in Gaza-strip", Al-Quds University, Palestine.
- Savitz, J. (2003). Couples Undergoing Infertility Treatment: Implications for Counselors. *The Family Journal*, Vol. 11, No. 4, pp 383-387.
- Scocco, P., de Girolamo, G, Vilagut G, Alonso J. (2008). Prevalence of suicide ideation, plans, and attempts and related risk factors in Italy: Results from the European Study on the Epidemiology of Mental Disorders-World Mental Health study. *Compr Psychiatry*. Jan-Feb;49(1): pp 13-21.
- Slade, P.; Emery, J.& Lieberman, B.A. (1997). A prospective, longitudinal study of emotions and relationships in in-vitro fertilization treatment. *Human Reproduction.*, Vol.12, No.1 pp.183–190.
- Small, R.; Lumley, J.& Yelland J. (2003). Cross-cultural experiences of maternal depression: associations and contributing factors for Vietnamese, Turkish and Filipino immigrant women in Victoria, Australia. *Ethnic Health*, 8(3): pp 189-206.
- Starcevic, Vladan. (2005). Anxiety disorders in adults: A clinical guide, 1<sup>st</sup> Edition, Oxford University Press. , New York.
- Strickland, Bonnie Ruth .(2001). The gale encyclopedia of psychology, 2<sup>nd</sup> Edition, Gale Group.
- Strongman, K. T. (2003). The psychology of emotion : from everyday life to theory. 5<sup>th</sup> Edition, John Wiley & Sons Ltd, England.
- Stuart S, Couser G, Schilder K, O'Hara MW, Gorman L. (1998). Postpartum anxiety and depression: onset and comorbidity in a community sample. *Journal of Nervous and Mental Disorders*, 186(7): pp 420-424.
- Teissedre F.; Chabrol H. (2004). A study of the Edinburgh Postnatal Depression Scale (EPDS) on 859 mothers: detection of mothers at risk for postpartum depression. *Encephale.*, 30(4): pp 376-81.
- Templeton, L., Velleman R, Persaud A, Milner P. (2003). The experiences of postnatal depression in women from black and minority ethnic communities in Wiltshire, UK. *Ethnic Health*, 8(3): pp 207- 221.
- Thabet, Lamia. (2005). Emotional problems in orphanage children in Gaza Strip., M.Sc Thesis., Al-Quds University, Jerusalem – Palestine.
- The Columbia Encyclopedia (2006). Sixth Edition. Columbia University Press.
- Toney, S. D. (2007) Identifying and managing depression in women. *J Manag Care Pharm*;13(9 Suppl A): pp 16-22.
- Varney, H.; Kriebs, J.& Geger, C. (2004). Varney's Midwifery, 4<sup>th</sup> Edition. Jones and Bartlett Publishers, Inc, Boston.
- Wang, J.L.; Lesage, A.; Schmitz, N & Drapeau, A. (2008) The relationship between work stress and mental disorders in men and women: findings from a population-based study. *J Epidemiol Community Health*. Jan;62(1): pp 42-47.
- Wenzel, A.; Haugen E. N.; Jackson L. C.; Robinson K. (2003). Prevalence of generalized anxiety at eight weeks postpartum. *Archives of Women's Mental Health*. Vol. 6, No 1.
- Yamashita, H.& Yoshida, K. (2003). Screening and intervention for depressive mothers of new-born infants. *Seishin Shinkeigaku Zasshi*, 105 (9): pp 1129-1135.

- Yamashita, H.; Yoshida, K; Nakano, H.& Tashiro, N. (2000). Postnatal depression in Japanese women. Detecting the early onset of postnatal depression by closely monitoring the postpartum mood. *J Affect Disord*, 58 (2): pp 145-54.
- Zerkowitz, P.; Papageorgiou A. (2005). Maternal anxiety: An emerging prognostic factor in neonatology. *Acta Paediatrica*, volume 94, issue 12, pp 1704-1705.

# Appendices

## Appendix (1)

### Helsinki Approval Letter

Palestinian National Authority  
Ministry of Health  
Helsinki Committee



السلطة الوطنية الفلسطينية  
وزارة الصحة  
لجنة هلسنكي

Date: 29/4/2007

التاريخ: 2007/4/29

Name: Sooma Baroud

الاسم: سومة بارود

I would like to inform you that the committee  
has discussed your application about:

نفيدكم علماً بأن اللجنة قد ناقشت مقترح دراستكم  
حول:-

**Prevalence of depression and anxiety  
disorders among women of childbearing age  
attending primary care centers in the Gaza  
governorates.**

In its meeting on April 2007  
and decided the Following:-

و ذلك في جلستها المنعقدة لشهر ابريل 2007

و قد قررت ما يلي:-

To approve the above mention research study.

الموافقة على البحث المذكور عالياه.

مع التأكيد على تطبيق هذه الاجراءات بالغة الدقة.

Signature

توقيع

Member

عضو

Member

عضو



Chairperson

Conditions:-

- ❖ Valid for 2 years from the date of approval to start.
- ❖ It is necessary to notify the committee in any change in the admitted study protocol.
- ❖ The committee appreciate receiving one copy of your final research when it is completed.

Gaza Etwam – Telefax 972-7-2878166



### Appendix (3)

#### UNRWA PCCs Approval Letter

Handwritten notes in Arabic script, including a checkmark and some numbers.



Date: 27, August, 2006

To : Chief, Field Health Programme  
From : Dr. Sooma Baroud  
Subject: Interviewing UNRW Health Centers patients (Female) for my M.A.

I would like to inform you that I am doing a research on **Prevalence of depression and anxiety disorders among women of childbearing age attending Primary Care Centers in the Gaza Governorates** for my Master Degree course at Al-Quds University-Abu Deis.

I was asked to do a questionnaire on the Thesis proposal and in order to get the out come and profitable results of this questionnaire I need to interview UNRW Health Centers patients (Female).

The attached proposal and questionnaire shows the scientific data I am looking for and the scientific purpose I am doing it for.

I would highly appreciate your kind cooperation and approval to start my questionnaire.

Thank you and best regards

Dr. Sooma Baroud

Handwritten signature of Dr. Sooma Baroud.

Khanyounis

Jawwal No.: 0599- 864337  
W. No.: 08-2070217

**Appendix (4)**  
**Arabic introduction of Questionnaire**

:

" :

"

## Appendix (5)

### Socio-demographic Questionnaire استبيان الحالة الاجتماعية الاقتصادية للسيدات

- ..... : .1
- :     : .2
- : .3
- 12 -6  6 -4  3
- 5  5 - 2  2 -1
- ..... : .4
- : .5
- : .6
- : .7
- : .8
- ..... : .9
- 2000 -1501  1500 -801  800
- 2500  2500 -2001

**Appendix (6)**  
**Beck's Depression Inventory "BDI-2"**

21

16

( ) 18 ( ) .

العبارات	البند
لا أشعر بالحزن	0
أشعر بالحزن أغلب الوقت	1
أنا حزين طول الوقت	2
أنا حزين أو غير سعيد لدرجة لا أستطيع تحملها.	3
لم تفتر همتي فيما يتعلق بمستقبلي.	0
أشعر بفتور الهمة فيما يتعلق بمستقبلي بطريقة أكبر مما اعتدت.	1
لا أتوقع أن تسير الأمور بشكل جيد بالنسبة لي.	2
أشعر بأن لي في المستقبل وانه سوف يزداد سوءا.	3
لا أشعر بأنني شخص فاشل	0
لقد فشلت أكثر مما ينبغي	1
كلما نظرت إلى الوراء أري الكثير من الفشل	2
أشعر بأنني شخص فاشل تماما	3
أستمتع بالأشياء بنفس قدر استمتاعي بها من قبل.	0
لا أستمتع بأشياء بنفس القدر الذي اعتدت عليه.	1
أحصل على قدر قليل جداً من الاستمتاع من الأشياء التي اعتدت أن أستمتع بها.	2
لا أستطيع الحصول على أي استمتاع من الأشياء التي اعتدت الاستمتاع بها.	3
لا أشعر بالإثم (تأنيب الضمير)	0
أشعر بالإثم (تأنيب الضمير) عن العديد من الأشياء التي قمت بها أو أشياء كان يجب أن أقوم بها.	1
أشعر بالإثم (تأنيب الضمير) أغلب الوقت.	2
أشعر بالإثم (تأنيب الضمير) طول الوقت.	3
لا أشعر بأنه يقع علي عقاب	0
أشعر بأنه ربما يقع علي عقاب	1
أتوقع أن يقع علي عقاب.	2
أشعر بأنه يقع علي عقاب.	3
شعوري نحو نفسي كما هو.	0
فقدت الثقة في نفسي.	1
خاب رجائي في نفسي.	2
لا أحب نفسي.	3

لا أتقد أو ألوم نفسي أكثر من المعتاد.	0	8- نقد الذات
أتقد نفسي أكثر مما اعتدت.	1	
أتقد نفسي على كل أخطائي.	2	
ألوم نفسي على كل ما يحدث من أشياء سيئة.	3	
ليس لدي أي أفكار انتحارية.	0	9- الأفكار أو الرغبات الانتحارية
لدي أفكار للانتحار ولكن لا يمكنني تنفيذها.	1	
أريد أن انتحر.	2	
قد انتحر لو سححت لي الفرصة.	3	

10- البكاء	0	لا أبكي أكثر مما اعتدت
	1	أبكي أكثر مما اعتدت
	2	أبكي بكثرة من أي شيء 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	اهتاج أو استثارة لدرجة أنه من الصعب علي البقاء بدون حركة.
	3	اهتاج أو استثارة لدرجة تدفعني للحركة أو فعل شيء ما.
12- فقدان الاهتمام	0	لم أفقد الاهتمام بالآخرين أو بالأنشطة.
	1	أهتم بالآخرين أو بالأمر أقل من قبل.
	2	فقدت أغلب اهتمامي بالآخرين والأمر الأخرى
	3	من الصعب أن أهتم بأي شيء
13- التردد	0	اتخذ القرارات بنفس كفاءتي المعتادة.
	1	أجد صعوبة أكثر من المعتاد في اتخاذ القرارات.
	2	لدي صعوبة أكثر بكثير مما اعتدت في اتخاذ القرارات.
	3	لدي مشكلة اتخاذ أي قرارات.
14- انعدام القيمة	0	لا أشعر بأنني عديم القيمة.
	1	لا أعتبر نفسي ذو قيمة وذو نفع كما اعتدت أن أكون.
	2	أشعر بأنني عديم القيمة بالمقارنة بالآخرين.
	3	أشعر بأنني عديم القيمة تماماً.
15- فقدان الطاقة	0	لدي نفس القدر من الطاقة كالمعتاد.
	1	لدي قدر من الطاقة أقل مما اعتدت.
	2	ليس لدي طاقة كافية لعمل الكثير من الأشياء.
	3	ليس لدي طاقة كافية لعمل أي شيء.
16- تغيرات في نمط النوم	0	لم يحدث لي أي تغير في نمط (نظام) نومي.
	1	أ- أنام أكثر من المعتاد إلى حد ما. ب- أنام أقل من المعتاد إلى 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 نومي مبكراً ساعة أو ساعتان ولا أستطيع أن أعود للنوم مرة أخرى.
17- القابلية للغضب أو الانزعاج	0	قابليتي للغضب أو الانزعاج لم تتغير عن المعتاد.
	1	قابليتي للغضب أو الانزعاج أكبر من المعتاد.
	2	قابليتي للغضب أو الانزعاج أكبر بكثير من المعتاد.
	3	قابليتي للغضب أو الانزعاج طويلاً جداً.

18- تغيرات في الشهية	0	لم يحدث أي تغير في شهيتي.
	1	أ- شهيتي أقل من المعتاد إلى حد ما. ب- شهيتي أكبر من المعتاد إلى حد ما.
	2	أ- شهيتي أقل كثيراً من المعتاد. ب- شهيتي أكبر كثيراً من المعتاد.
	3	أ- ليست لي شهية على الإطلاق. ب- لدي رغبة قوية للطعام طول الوقت.
19- صعوبة التركيز	0	أستطيع التركيز بكفاءتي المعتادة.
	1	لا أستطيع التركيز بنفس الكفاءة المعتادة.
	2	من الصعب علي أن أركز عقلي على أي شيء لمدة طويلة.
	3	أجد نفسي غير قادر على التركيز على أي شيء.
20- الإرهاق أو الإجهاد	0	لست أكثر إرهاقاً أو إجهاداً من المعتاد.
	1	أصاب بالإرهاق أو الإجهاد بسهولة أكثر من المعتاد.
	2	يعوقني الإرهاق أو الإجهاد عن عمل الكثير من الأشياء التي اعتدت عملها.
	3	أنا مرهق أو مجهد جداً لعمل أغلب الأشياء التي اعتدت عليها.

21- فقدان الاهتمام بالجنس	
لم ألاحظ أي تغيير في اهتمامي بالجنس حديثاً.	0
أنا أقل اهتماماً بالجنس مما اعتدت.	1
أنا أقل اهتماماً بالجنس الآن بدرجة كبيرة.	2
فقدت الاهتمام بالجنس تماماً.	3

**Appendix (7)**  
**Taylor's Manifestation Anxiety Scale "TMAS"**

			1
			2
			3
			4
		( )	5
			6
			7
			8
			9
		( )	10
			11
			12
			13
			14
			15
			16
			17
			18
			19
			20
			21
			22
			23
			24
			25
			26
			27

رقم	البند	نقطة	نقطة
28			
29			
30			

			31
			32
			33
			34
			35
			36
			37
			38
			39
			40
			41
			42
			43
			44
			45
			46
			47
			48
			49
			50

## Appendix (8)

### DSM-IV diagnostic criteria for major depression

- A. Five (or more) of the following symptoms have been present during the same two-week period and represent a change from previous functioning; at least one of the symptoms is either depressed mood or loss of interest or pleasure. Note: Do not include symptoms that are clearly due to a general medical condition or to mood-incongruent delusions or hallucinations.
1. Depressed mood most of the day, nearly every day, as indicated by either subjective report (eg, feels sad or empty) or observation made by others (e.g, appears tearful). Note: In children and adolescents, can be irritable mood.
  2. Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day (as indicated by either subjective account or observation made by others).
  3. Significant weight loss when not dieting or weight gain (e.g, a change of more than 5% of body weight in a month), or decrease or increase in appetite nearly every day. Note: In children, consider failure to make expected weight gains.
  4. Insomnia or hypersomnia nearly every day.
  5. Psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down).
  6. Fatigue or loss of energy nearly every day.
  7. Feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick).
  8. Diminished ability to think or concentrate, or indecisiveness, nearly every day (either by subjective account or as observed by others).
  9. Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide.
- B. The symptoms do not meet criteria for a mixed episode.
- C. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- D. The symptoms are not due to the direct physiologic effects of a substance (eg, a drug of abuse, a medication) or a general medical condition (eg, hypothyroidism).

E. The symptoms are not better accounted for by bereavement (eg, after the loss of a loved one, the symptoms persist for longer than two months or are characterized by marked functional impairment, morbid preoccupation with worthlessness, suicidal ideation, psychotic symptoms, or psychomotor retardation).

## Appendix (9)

### DSM-IV-TR Diagnostic Criteria for Generalized Anxiety Disorder

Generalized anxiety disorder, according to DSM-IV-TR, is characterized by a pattern of frequent, persistent worry and anxiety that is out of proportion to the impact of the event or circumstance that is the focus of the worry. The distinction between generalized anxiety disorder and normal anxiety is emphasized by the use of the words "excessive" and "difficult to control" in the criteria and by the specification that the symptoms cause significant impairment or distress (**American Psychiatric Association, 2000**):

- A. Excessive anxiety and worry (apprehensive expectation), occurring more days than not for at least 6 months, about a number of events or activities (such as work or school performance).
- B. The person finds it difficult to control the worry.
- C. The anxiety and worry are associated with three (or more) of the following six symptoms (with at least some symptoms present for more days than not for the past 6 months).
  - 1. restlessness or feeling keyed up or on edge
  - 2. being easily fatigued
  - 3. difficulty concentrating or mind going blank
  - 4. irritability
  - 5. muscle tension
  - 6. sleep disturbance (difficulty falling or staying asleep, or restless unsatisfying sleep)
- D. The focus of the anxiety and worry is not confined to features of an Axis I disorder, e.g., the anxiety or worry is not about having a panic attack (as in panic disorder), being embarrassed in public (as in social phobia), being contaminated (as in obsessive-compulsive disorder), being away from home or close relatives (as in separation anxiety disorder), gaining weight (as in anorexia nervosa), having multiple physical complaints (as in somatization disorder), or having a serious illness (as in hypochondriasis), and the anxiety and worry do not occur exclusively during posttraumatic stress disorder.
- E. The anxiety, worry, or physical symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- F. The disturbance is not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition (e.g., hyperthyroidism) and does not occur exclusively during a mood disorder, a psychotic disorder, or a pervasive developmental disorder.