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# Risk factors of post partum Depression among women in Gaza Strip

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التوقيع: عرارت

التاريخ: 2013/6/18

The Islamic University-Gaza Faculty of Nursing-Education Deanery of High Education



# **Risk factors of post partum Depression among** women in Gaza Strip

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Thesis Submitted Partial Fulfillment of the Requirements for the Degree of Master In Community Mental Health-(Nursing Sciences)

1434-2013



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# عمادة الدراسات العليا

1150 : راغاي: 1150

الرقمج س: غ/35/ ..... Date ..... 2013/04/28

نتيجة الحكم على أطروحة ماجستير

بناءً على موافقة عمادة الدر اسات العليا بالجامعة الإسلامية بغزة على تشكيل لجنة الحكم على أطروحة الباحثة / عايدة على عبدالله الحمارنة لنيل درجة الماجستير في كلية التربية / قسم صحة نفسية ومجتمعية-علوم التمريض وموضوعها:

# Risk factors of post partum depression among women in Gaza strip

وبعد المناقشة العلنية التي تمت اليوم الأحد 18 جمادي الآخر 1434هـ...، الموافق 2013/04/28م الساعة الثامنة والنصف صباحاً بمبنى اللحيدان، اجتمعت لجنة الحكم على الأطروحة والمكونة من:

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واللجنة إذ تمنحها هذه الدرجة فإنها توصيها بتقوى الله ولزوم طاعته وأن تسخر علمها في خدمة دينها ووطنها. والله ولي التوفيق ، ، ،

عميد الدراسات العليا C.14 (m.) أ.د. فؤاد على العاجز

### Abstract

This study is "Risk factors of post partum depression among women in Gaza Strip" The aim of this study is to identify the prevalence of post partum depression and to determine the risk factors, which may lead and develop post partum depression among women in Gaza. This is to provide reliable information as a base line data for further studies, which may help in improving the quality of mental health care for women and child.

**Objectives of the study**: To determine the prevalence of post partum depression, to identify the most common risk factors of post partum depression among women in Gaza Strip.

**Design of the study**: Census by taking the whole delivered women within three Weekes after delivery.

**Setting of the study**: the study was carried out in community health centers localities, which administered by the UNRWA for the Palestinian refugee.

**Method:** The study population was delivered women at BCG vaccine, the sample was 440 new delivered women that had been selected through random sample, the sample was selected according to determined criteria and the women who presented at the community health centers. The data has been analyzed by SSPS soft ware program. These localities: Gaza town, Jabalia ,Nassirat, Khan Younis and Rafah camps represent variety of the socioeconomic and cultural characteristics for the Palestinian refugees ,and the real picture for women suffering related to the pressure they live the martial of the study ,intervention using two questionnaires (international ,and structured administered)

**Results and Conclusion:** The prevalence of post partum depression was 55% among women give birth, possible PPD 18.9%, no post partum depression 26% (in Gaza town 15.7%, Jabalia camp 20.7%, Nassirat camp 23.6%, Khan Younis camp 20.7%, Rafah camp 19.4%).Result showed that there are relation between post partum depression and demographic variables, most women having post partum depression live in camps with a percentage of 48%,37.1% live in the city, and 14.2% live in villages, the accommodation relation(chi-sq=10.9,p-value<0.05).Husband age between25-35 years old there women have PPD. Also job of husband, women with husband working in permanent governmental job 31.6%, having high number of children (F-test=4.3, p-



value<0.05, evaluation of last delivery, number of children),health dimension35% of women who suffer from post partum depression have previous, hospital admissions, health situation and factors of pressure (social, economical and psychological),8.4% the women who suffered from psychological problems at the past suffer of post partum depression,

**Recommendation**: To provide post partum depression counseling for new pregnant women and their families, to adapt awareness campaigning activities as a part of reproductive health program, to introduce pre-conception information counseling services ,to train health care worker to discover, diagnose and deal with PPD cases. Community health education program and access family planning services should be introduced.

Key words: post partum depression, risk factors, UNRWA health centers, Gaza strip



# ملخص الدراسة

# عوامل الحمل الخطرة التي تؤدي إلى اكتئاب ما بعد الولادة لدي النساء في غزة

#### خلفية الدراسة

نتأرجح مشاعر الأمهات ما بعد الولادة لفترة بسيطة من الزمن نتيجة لعدة عوامل وقد يمر هذا التأثير دون أن يترك أثاره ولكن في بعض الحالات وجدت الدراسات العالمية في معظم دول العالم أن هذا التغير يترك اثأرا على الام والطفل والعائلة بأسرها وقد أوصت معظم هذه الدراسات بالانتباه لمثل هذه الحالات وتقديم الدعم اللازم في شتي المجالات لها.أما في فلسطين بلدنا فقد وجدت الباحثة ندرة الأبحاث في هذا االموضوع مما يتطلب منا جميعا ومن المسئولين خاصة اخذ الموضوع بطريقة جادة لما تمثله الأمهات من أساس في تكوين الأسرة ولما نتعرض له الأسر الفلسطينية من ضغوطات، صعبة للغاية في ظل الاحتلال خاصة الأمهات.و قد قدرت الدراسة الوحيدة التي وجدتها الباحثة أن نسبة انتشار المرض حوالي 69% وقد عملت هذه الدراسة عام 2002.

#### أهداف الدراسة:

تحديد نسبة انتشار اكتئاب ما بعد الولادة ومعرفة مدى تأثير العوامل الاجتماعية والديموغرافية في تطوير وجود اكتئاب ما بعد الولادة لدي النساء في غزة وتحديد عوامل الحمل الخطرة التي تؤدي إلى اكتئاب ما بعد الولادة لدي النساء الحوامل في غزة وتقديم الاقتراحات لمنع العوامل الخطرة التي تؤدي إلي هذا المرض

> **وصف الدراسة**: دراسة إحصائية شاملة بأخذ كل الأمهات اللواتي ولدن خلال فترة ثلاث أسابيع بعد الولادة **مكان الدراسة**: أجريت الدراسة في مراكز خدمات الرعاية الأولية التابعة لوكالة الغوث الدولية

منهجية الدراسة: هذه الدراسة وصفية تحليلية تمت في خمس مناطق في قطاع غزة وهي :جباليا ،غزة ،النصيرات ،خان يونس ،رفح.ولقد تم تحديد مجتمع الدراسة بأخذ كل النساء حديثات الولادة واللواتي حضرن لتطعيم BCG ،و حجم العينة ب(440) سيدة ولدن حديثا أي بعد الولادة بأسبوع إلي ثلاث أسابيع ممن قمن بزيارة هذه المراكز لإعطاء أول تطعيم للطفل وهو تطعيم السل الرئوي وقد أجريت هذه الدراسة في الفترة من 2012/9/26–2012/10/10 بأسلوب العينة العشوائية وباستخدام مقياس EDINBIRG العالمي لقياس اكتئاب ما بعد الولادة ومقياس آخر تم تصميمه وقد استخدم التحليل الإحصائي لتحليل البيانات.

النتائج: أظهرت الدراسة أن نسبة السيدات المصابات بهذا المرض طبقا لهذه الدراسة 55% ونسبة احتمال الإصابة به 18.9 % و كانت نسبة الإصابة به26 % وقد بينت الدراسة أن هذه النسبة لم تختلف في انتشارها في مناطق القطاع بصورة واضحة حيث كانت (نسبة الإصابة في غزة 15.7%-جباليا 20.7%- وفي النصيرات 23.6 %-خانيونس20.7%-رفح 19.4%) وقد أظهرت الدراسة حدوث المرض مرتبطا بالعوامل التالية:

العوامل الديموغرافية (السكن أظهرت النتائج أن السيدات اللواتي يعشن في المخيمات هن النسبة الأعلى في الإصابة باكتثاب ما بعد الولادة 48%،النساء اللواتي أعمار أزواجهن ما بين25-35 سنة أكثر عرضة للإصابة بمرض اكتثاب ما بعد الولادة، عدد الأطفال حيث تبين أن النساء ذوات العدد المرتفع هن الأكثر إصابة بهذا المرض، عمل الزوج بوظيفة بدخل قليل كالعمل الحكومي 3.66%).وكذلك البعد الصحي و بالأوضاع الصحية السابقة،حيث وجد أن اللواتي سبق وادخلن المستشفى لأي سبب كان 35% أصبن باكتثاب ما بعد الولادة، عدد الأطفال حيث تبين أن النساء دوات العدد المرتفع هن الأكثر إصابة بهذا المرض، عمل الزوج بوظيفة بدخل قليل كالعمل الحكومي 3.66%).وكذلك البعد الصحي و بالأوضاع الصحية السابقة،حيث وجد أن اللواتي سبق وادخلن المستشفى لأي سبب كان 35% أصبن باكتثاب ما بعد الولادة،والوضع الصحي خلال الحمل الأخير وان الضغوطات وادخلن المستشفى لأي سبب كان 35% أصبن باكتثاب ما بعد الولادة،والوضع عانين من اضطرابات نفسية بنسبة 8.4% أيضا الاقتصادية والاجتماعية.والضغوطات النفسية حيث وجد أن السيدات اللواتي عانين من اضطرابات نفسية بنسبة 8.4% أيضا

وقد أوصت الباحثة بالتالي: تقديم المشورة الصحية والنفسية للحوامل الجدد وعائلاتهن بخصوص هذا المرض وزيادة الوعي المجتمعي لهذا المرض وتقديم رعاية ما قبل الحمل عن المواضيع النفسية والفسيولوجية وتدريب العاملون في الرعاية الأولية



وبرامج الأمومة والطفولة على اكتشاف ومتابعة ومعالجة هذه الحالات وزيادة الوعي والخدمات المقدمة في برامج نتظيم الأسرة لارتباط المرض بزيادة عدد الأطفال وزيادة الوعي المجتمعي لهذا المرض.

ا**لكلمات الدالة:** الاكتئاب، عوامل الحمل الخطرة، مراكز الرعاية الأولية التابعة لوكالة غوث وتشغيل اللاجئين، قطاع غزة



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# Dedication

I dedicate this work to My parents My husband My lovely daughters and sons My brothers and sisters My teachers My friends And to all Palestinian women Who always support, encourage, guide, and advice my with patience and love from the beginning to the end



#### Acknowledgment

At the end of this study, I would like to thank my god who first of all granted me success to achieve this work and make it see the light. I would like also to thank the Islamic University represented by **Dr: Kamaleen Sha't,** for all facilities and support given to me through this work.

My deep thanks for nursing collage represented by Dr: Abed El-Karime Redwan

And especial and great full thanks for education collage represented by **Dr: Khitam Al Sahar.** In psychology, for her guidance, advices and her suggestions

I also would like to thank **Dr: Yousef Al Jeesh** Assistant professor in public health for his advices, supervision, motivation and constant support.

Especial thanks for **Dr: Atef Al Agha PhDr.** In psychology, education collage for his cooperation, advice and support.

I am glad to present my special thanks for UNRWA Health department in Gaza represented by general director of health department **Dr: Mohammed El Magadma**, for his help and facilitate data collection through UNRWA clinics,

And I am deeply grateful for my friends in health centers of UNRWA in Gaza strip, who helped me in collecting data of this study and for those also who supported me in statistical information and helped in documentation of data.

Grateful and especial thanks to my family, thank you for all of your support, encouragement, and stability that they provided while my dreams come true.



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# LIST OF ABBREVIATIONS

| Mother and Child Health Centers              |
|--|
| Ministry of Health                           |
| Palestinian Ministry of Health               |
| United Nations Relief and Working Agency     |
| Post Partum Depression                       |
| Crude death rate                             |
| analysis of variance                         |
| Statistical package for Social Science       |
| Edinburg scale                               |
| International Classification of Diseases -10 |
| Life events                                  |
| Self Report Scale                            |
| Likret Scale,                                |
| Adjustment Scale                             |
| Nilscy Depression Scale                      |
| Anxiety Stress Scale                         |
| Beck Meta Analysis                           |
| Palestinian military services                |
| Non Govermental Organization                 |
| Palestinian Legislative Councel              |
| Palestinian Authority                        |
| electroencephalograms                        |
|  |



Chapter 1

Introduction



#### **Chapter One**

#### **1.1 Background:**

Becoming a mother can be difficult this is due to a major psychological shift from viewing oneself as a woman who is pregnant to viewing oneself as a new mother. This major emotional shift may create problems. Following childbirth, seesawing emotions and heightened emotional responses may occur. This emergence of emotions is either called postpartum blues or baby blues. The frequency varies, but may occur around 50% of the time. It is considered a normal variant following the birthing process. These periods may be characterized by mood lability, irritability, feeling over whelmed and exhausted periods of weeping may be present and other mood disorders. It usually tends to occur two to five days after giving birth. It usually resolves without requiring medical treatment within a week or two. In addition to mood swings, crying spells may occur as well. This is not unusual as the woman's body tries to readjust itself after the momentous events of childbirth. Mood swings are usually due to changing hormone levels in the woman's body. It is a common finding following many pregnancies. In addition to discussing the symptoms with your gynecologist and obstetrician, it may also help you to discuss your feelings with friends, your spouse, and your family. The key is not to be afraid to ask for help, especially when you need to sleep. Postpartum blues is a mild form of depression, however, and if it does get more severe, the term is postpartum depression. If this is the case there may be a persistent inability to cope.

Puerperal period is regarded a time of particularly drastic change in the lives of women affecting both body and mind. Along with the drastic changes brought about by the hormonal system accompanying child birth, they are required to adopt a new role as being mothers, furthermore, their changes are followed by other major changes affecting life in general including the relationships between husband and wife and between family members, the puerperal period is a time in which various psychiatric symptoms readily appear and in that context is also regarded as a critical time from the stand point of mental health care of mothers and children. Maternal postpartum depression is prevalent, with 8% to 25% of women experiencing subclinical depressive symptomatology sometimes during the first year postpartum. Postpartum psychiatric illness was initially conceptualized as a group of disorders specifically linked to pregnancy and childbirth and those was considered diagnostically distinct from other types of psychiatric illness. More recent evidence suggests that postpartum psychiatric



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illness is virtually indistinguishable from psychiatric disorders that occur at other times during a woman's life. Several recent studies have found similar rates of postpartum depression in new fathers, particularly in families where the mother is also experiencing depression. However to our knowledge no study exists that examines paternal depression in the first year postpartum in a large, nationally representative sample. Postpartum depression in mothers has been linked with negative parenting behaviors associated with negative child outcomes. Little empirical researches had studied either the prevalence or the actuality of depression in postnatal father. Harvey and Mcgrath study a group of fathers whose woman were admitted to mother and baby unit found them to have an increased prevalence of psychiatric morbidity compared with control sample. The prevalence of depression was 20% in both mothers and fathers in an 86 couples 8 weeks after childbirth. These are all symptoms of depression, which if they occur in the period immediately after pregnancy would be considered symptoms of post partum depression.

Unique symptoms of post partum depression are feelings and thoughts of not want to care for or be around their baby, severe anxiety panic atacks and physical symptoms related to anxiety. (Abell, 2007, *4*: 29-47).

Postpartum depression is not the baby blues, many women experience the baby blues. Post partum depression lasts longer and is more severe. Post partum depression actually interferes with your ability to lead your life and care for your baby.

Post partum psychosis is another mood disorder, which occurs after the birth of a child. This consists of hearing voices, having delusions or seeing things and /or feelings of want to harm yourself and your baby. This usually occurs within three months after the birth of a child. Women who have a diagnosis of bipolar disorder have been found to be more likely to have this kind of post partum depression. Symptoms of post partum depression are often easy to identify, however women do not readily admit to feeling this way after the birth of child. The stigma in society is fairly high for these women, particularly if they thought this would be the most wonderful experience of their lives.



Having post partum depression does not mean you are a bad mother or that you don't want or love your child, the depression is causing the feelings and behavior not your baby.

Studies of post partum depression have shown an interesting, but predictable patern in the narratives of women who have experienced it. Symptoms of post partum depression seem to consist of an underlying struggle for women, a grappling with their identity as a person in the midst of the depression.

This is due to a major psychological shift from viewing oneself as a woman who is pregnant to viewing oneself as a new mother. This major emotional shift may create problem this study was undertaken in five Palestinian communities in Gaza Strip this study will discuss the term of post partum depression. These are all symptoms of depression, which if they occur in the period immediately after pregnancy would be considered symptoms of post partum depression. Unique symptoms of post partum depression are feelings and thoughts of not want to care for or be around their baby, severe anxiety panic atacks and physical symptoms related to anxiety (Jones Craddock 2001).

#### 1.2 Significances of the study

Life quality is significant to humanity, and so this study will atempt to examine post natal depression among delivered women in Gaza Strip. Results that may play an important role in helping preventing post partum depression disorder. Raising up and evaluating individuals' awareness may help to overcome negative life style and atitudes, pushing positively towards health status improvement. This will be a get away to investigate health for this vital sector in playing any role in life development, and decrease the burden of depressed mothers. Predict women at risk for developing post partum depression. Life time depression, vaginal delivery, little education, unemployment, and chronic health problems were significantly related to PPD in one of the areas prenatal depression and more than one chronic health problem increased significantly the risk of PPD Caserne Section decreased the risk of PPD particularly in Gaza should use post natal assessment to identify women at risk of PPD.

The importance of this study come after searching in this subject and I found one or two studies in Gaza in spite of there are many risk factors which may lead to this



disease and the prevalence of PPD as found in (Samor, 2002:92-94) were determined that the percentage of PPD was 695. Where 364 mothers in postnatal period 1 month after delivery and EPDS was a placated and the result was 250 = 69% women suffer from PPD and 114 = 31% women not suffer (Health Services Research Unit).

## Problem of the study (problem statement):

The problem of the study can be summarized to identify the risk factors of post partum depression among women in Gaza Strip.

# 1.3 The Main aim of the study

To determine the concept of post partum depression and will give a whole picture about it in Palestine and will give us data about it and will achieve its objectives.

# 1.4 Objectives of study:

- To determine the prevalence of post partum depression.
- To identify the most common risk factors of post partum depression among women in Gaza Strip.
- To identify the impact of socio demographic characteristic on the development of post partum depression.
- To suggest recommendation for decision makers to prevent risk factors which enhance post partum depression in Gaza Governorates.

# **1.5 Research questions:**

- -What are the most factors effects on post partum depression among pregnant women in Gaza?
- -What is the impact of low income on development of post partum depression?
- -What is the prevalence of post partum depression?
- -Are their differences between gender and development of partum depression?
- -Are their differences between level of education and development of post partum depression?
- -Is there a difference between the age of the women and development of postpartum depression?
- -Are there any interactions in post partum depression that attribute to the place of resident in city refugee camp or village?
- -What are the differences in PPD that attributed to the place of delivery in hospital care center private delivery center?



-Are there a prediction between PPD and the occurrence of mentality?

-Are there relationship between physical illness in pregnancy, difficult labor and PPD depression?

#### 1.6 Health in Palestine

Ministry of Health has pulled up its socks for the total health care systems of the country. Initiatives have been taken to improve the public health laboratory, drinking water, and vector control and food control activity of the country. Water samples from different regions have been collected for conducting chemical and microbiological tests. The same has been done with food samples collected from different food joints. Both these measures are an important part of health services in Palestine and the result has been very positive. The rate of food poisoning has decreased remarkably in the recent years.

#### **1.6.1** Health Services in Palestine :

The five main health providers of health services in Palestine are Ministry Of Health, UNRWA, NGOs, Palestinian Military Medical Services (PMMS) and Private for profit. MOH bears the heaviest burden, as it has the responsibility. Women's mental health is determined by a complex interplay of several biological, social, and cultural factors. Women are more prone to several mental health problems because of their lower status in society and the impact of stressors that are often gendered, including poverty, violence, and poor physical health. Depression, summarization, posttraumatic stress disorders, and eating disorders are much more common in women than in men. Conditions such as schizophrenia, anxiety disorders, and substance use disorders, though not more common in women, have specific clinical and longterm implications among women. Sexual trauma and intimate partner violence are other important determinants of mental health problems in women. Pregnancy and the postpartum period may also be associated with mental health problems due to a combination of hormonal, biological, and psychosocial vulnerability. Postpartum depression has been identified as a significant cause of morbidity the world over. Reproductive and sexual health and disease also have associations with help seeking for both physical and unexplained somatic symptoms. The article discusses each of these issues and also reflects on interventions and health policies that would have a positive impact in improving mental health of women the world over.

(Women's Mental Health: International Encyclopedia of Public Health, 2008).



#### **1.6.2** Possible intervention – Geography:

Palestine land and people are the entities of one of the oldest civilizations on earth. The political country of Palestine was created after the Second World War. The Palestine land and people occupy an area that extends from the shores of the Mediterranean Sea to the Jordan River border. The West Asian country of Lebanon forms its southern border. The boundaries of the country are never constant due to political turbulence. The land of Palestine covers an area of 10,163 square miles. Most of the area is land surface. Water bodies are almost nonexistent. The Palestinian land is demarcated into 4 geographical regions: the Southern Desert, Mountains and Hills, Jordan valley and Ghawr. The demographics of Palestine are a result of many centuries of immigration (GreenA. R., & Carrillo J. E., 2006:425-431).

Gaza strip is an elongated area located on the south of Palestine which stretches along the Mediterranean Sea in between Israel and Egypt. Gaza 50 kilometers long from Bait Hannon in the north to Rafah in the south its width reaches 5-12km from the north to the south with an area of 364 sq. km. Gaza is divided into five Governorates: North, Gaza city, Midi zone, Khan Younis, and Rafah. Within these provinces, there are four towns, eight refugee camps, and fourteen villages (PASSIA, 2008).

#### **1.6.3 Demography of Gaza Strip population:**

The population of Gaza strip is based on the Palestinian Demographic Health Survey of 2007, the size of the Palestinian population is 3.7 million, 2.3 million in the West Bank and 1.4 million in Gaza Strip. About 68% of those residing in Gaza Strip are refugees, compared to 28% of those in the West Bank.

#### **1.6.4 Political Overview**

#### Israeli Negative Effect:

The Israeli attack on the Gaza Strip has had a negative effect on the quality of life of adults in the general population, and has resulted in high levels of reported distress, human insecurity, and social suffering. The siege on this region continues to be the main obstacle for improvement of the living conditions and quality of life of the population, and is a priority for action (Niveen M E Abu-Rmeileh Published Online July 2, 2010).



Gaza strip has been undergoing the new experience of autonomy since the peace agreement between the Palestinian and the Israeli government on13 September 1993. Israel still holds overall severity over Gaza strip. It has the control over borders means of communication and security market goods and travelers movement in and out of Gaza it also controls the internal and external export and import water and sources of energy. In words, it has the full influence over Gaza economy.

The Ministry of planning and international cooperation estimated that the poverty level in Gaza Strip is an indepth understanding of the humanitarian and developmental challenges ahead warrants an overview of some of the defining political developments. Over four decades have elapsed since the start of the Israeli occupation of the West Bank and the Gaza Strip. The year 2008 also marks 21 years since the first Intifada, a spontaneous popular uprising that led to the international negotiations leading up to the Oslo Peace Accords in, and final borders resumed and subsequently failed, despite intensive international interventions.

On 28 September 2000, the second Intifada broke out and the failure of the Oslo Accords ensued. As a result, the conflict escalated to unprecedented levels. The closure policies combined with major and often prolonged Israeli military incursions into the devastated the Palestinian economy and livelihoods. Several initiatives to end the conflict failed, and with the passage of time, Israel's Prime Minister. A "Disengagement Plan" from the Gaza Strip and four small settlements in the West Bank, and a mutual cease-fire was also agreed to, but never really took hold in practice. By autumn 2005, Israel unilaterally redeployed from the Gaza Strip, although it maintained control over border and crossing points. When Hamas won the Palestinian Legislative Council (PLC) elections and formed a government in March 2006.

In June 2007, Hamas ousted Fatah from the Gaza Strip and President Abase proceeded with the establishment of the West Bank-based emergency government. The emergency government has meanwhile been replaced by a West Bank-based caretaker government, headed by Prime Minister Salaam Fayyad. As a result, Israel released part of the withheld tax revenues, and the international community lifted its aid and diplomatic boycott. The de facto authorities in the Gaza Strip, however, remain ignored and isolated. The Gaza Strip is economically strangled as a result of a strict closure



regime that drastically curtails the movement of people and prohibits exports, and allows only the bare.

#### **1.6.5** Socio-economic and political overview:

The impact of political developments, whether Palestinian-Israeli or inter-Palestinian, on the socio-economic conditions of the Palestinian population has been immense. These developments have replaced the optimism on the potential of the Palestinian economy with a prevailing skepticism toward the possibility of developing a sustainable Palestinian economy.

However, the second Intifada triggered a set of conditions; specifically the strict closure regime imposed both around, severely impeding the movement of people and goods, with a corresponding detrimental impact on security and investor confidence. Furthermore, the modest recovery and positive growth rates that the Palestinian economy experienced between 2003-2005 was once more reversed into decline with negative growth rates Palestinian authority(PA)and Israel's withholding of tax clearances for the PA shortly after the Hamas parliamentary election victory in January 2006. This economic decline resulted in a heightened PA budget deficit of over US\$1 billion, and a considerable drop in government resources and expenditures, which increasingly undermined the PA's ability to provide Hamas takeover of the Gaza Strip has resulted in a devastating deterioration in personal livelihood during the last quarter of 2007. According to the Palestinian Federation of Industries, over 100,000 jobs have been lost in the private sector in Gaza, 95% of the industries have been shut down and what remains is functioning at below normal capacity. The protraction of this situation has led to the collapse of the private sector. Economic decline would have been much worse had it not been for the larger-than-expected inflow of humanitarian assistance and private remittances. In an atempt to cushion the hardship of the population, the vast majority of external assistance delivered in the past years was directed towards humanitarian assistance at the expense of the much needed development assistance to strengthen the capacity (PASSIA, 2008).

### **1.6.6 Economic condition in GAZA:**

Overall, the objective income poverty trends are negative and happen in response to changing circumstances on the ground. More Palestinians have become poor, their poverty is deeper and yet more people are now at risk of falling into poverty.



Surveys conducted in May 2007 indicate that 58% of Palestinians live below the poverty line, and about half of these, 30%, live in extreme poverty. Furthermore, about 9.4% of the averagesized Palestinian households, which are technically above the poverty line (a monthly income of about US\$500 to US\$750), are now at high risk of falling into poverty, if the current socio-economic conditions continue. In terms of the negative income poverty trend, the percentage of households below the poverty line rose from 50% in March 2006 to 60% in August 2007.

#### **1.6.7 Population Growth:**

According to the Annual Palestinian report 2011, the natural increase of population in Palestine was (2.9%), (2.6 %) in the West Bank and (3.3 %) in the Gaza Strip.



# **Births:**

# **1.7 Reported Live Births:**

The total number of reported live births in Palestine was (121,493), (64,614) (53.2%) in west Bank and (56,879) (47.8%) in Gaza Strip.

# **Reported Crude Birth Rate:**

Despite progressive decline over the years, the number of live births per 1000 of population per year is still high compared with other countries. The Crude birth rate (CBR) in 2011 was (29.1. 1000) of population in 2011, in West Bank (25/ 1000) and (35.8/1000) in Gaza Strip.

### **Fertility:**

Fertility data are based on a family survey that PCBS conducted the total fertility rate in Palestine was (4.3),(4.2) in West Bank and (4.5) in the Gaza Strip In 2011, the total number of reported deaths in Palestine was (11,415), (6,105) males (53.5%) and (5,310) females (56.5%), (7,237) out of them were in West Bank (3,785) males and (3,452) females, (4,178) deaths reported in Gaza Strip (2,320) males and (1,858) females.

# Crude death rate (CDR):

According to PHIC figures, the crude death rate declines progressively over the years. The crude death rate for Palestine declined from (3.0) per 1000 of population in 2000 to (2.7) per 1000 of population in 2011. In Gaza Strip the crude death rate reached (2.6) per 1000 of population in 2011, while in West Bank the crude death rate reached (2.7) per 1000 of population in 2011.

# Maternal mortality:

Maternal mortality rate in West Bank in 2009 was (38/ 100,000 live birth) this rate decreased to reach (28/ 100,000 live birth) in 2011. The Pulmonary embolism was the main cause in these cases

#### General review of the study chapters

This study consists of five chapters and organizes as follow:

Chapter1: Includes study proposal which includes the introduction, research questions, objectives, significant of the study.

Chapter2: Focuses on the conceptual framework of the study and literature review

Chapter3: present detail description of the research methodology of this study

Chapter4: this chapter will include the results of the study.

Chapter5: this chapter will include discussion of the results, conclusion, and recommendation.



**Chapter Two** 

# **Conceptual framework and literature review**



# **Chapter Two**

# Conceptual framework and literature review

This chapter will outline the conceptual framework of the study and reviews the literatures that include PPD, risk factors for PPD.

# 1. Conceptual framework

Conceptual framework of the study is self developed. This framework consist mainly from independent variable(PPD),dependant variable(risk factors) and the variables which effect on the independent variable and may lead to PPD which include sociodemographic characteristics, health status, pervious mental illness, social factors, emotional factors, environmental factors.

This simple framework is used by the researcher to support, guide and direct the research process.



# Figure"1.1" conceptual framework

Researcher (AYDA) developed (2012)



#### **2** Definitions

#### 2.1 Operational definition of depression

Depression is a mood disorder measured by Beck scale which categorize to mild, moderate, or sever, it not chronic condition it is intermitted according to life stress and personal characteristics

#### 2.2 Theoretical definition of depression

Depression is an affective, or mood disorder. It is an illness that immerses its sufferers in a world of self-blame, confusion, and hopelessness. It is an illness of the mind and the body. Some could argue depression is a way of coping with life's pressures (Schwartz, 1992:19–23). Depression is classified as an affective disorder that disrupts a person's emotional state. Feelings of sadness, loss of interest in daily activities, fatigue and muscle aches and pains are all possible symptoms of this disorder. (Beck, C. T., 1998: 39-46)A person's emotions, thoughts and behaviors are factors that play a part in how this condition is experienced. A theory of depression will incorporate one or more of these factors to explain how this condition develops within a person's life. When most people think of the word depression they think of feeling sad, feeling down. If you do poorly on your physics exam you may feel disappointed and tell your friend, "I'm depressed. I didn't do well on my physics test today."

#### 2.3 Clinical depression

Clinical depression is a serious illness that affects most, if not all, facets of a depressive's life. The major component of depression is a loss of interest in activities once found pleasurable. In fact, in order for a person to be diagnosed with having major depression, a loss of interest in activities once found pleasurable must be present (Schwartz, 1992:19–23). For some depressives, there is even a loss of interest in life itself. Each year an average of 5000 Americans take their lives. How many of these people were suffering from depression is not known, but it is believed a vast majority of them were depressed.

Depression can be disabling to the point where the depressive can no longer function in the daily rigors of life. Absence from work or school is common, for the severely depressed individual does not have enough energy or motivation to get out of bed. Many a depressive will describe his or her illness to having a large and heavy



weight on his or her back. Often that heavy weight is an accumulation of stressors, and sometimes the weight is unexplainable. (Beck C. T.,1998:39).

#### 2.4 Physical depression

Physically, a depressive is sluggish. His or her speech is noticeably slow, and motor skills are retarded (Comer, 1992). The depressive may complain of headaches or other ailments that have no explanation .Cognitively, depressives' exhibit confusion and find it difficult to make even what may seem too many people to be the simplest of decisions (Schwartz, 1992:19–23) memory is also impaired.

Depressives are often agitated and irritable. They may perform repetitive motor tasks, like pacing or rubbing their hands together. They may exert a poor disposition and become "aggressively hostile" to others (Wetzel, 1984:453,462).

Life can be a lonely experience for depressives. Their sense of humor is lost and they are seldom seen smiling. They are often tired from either too little or too much sleep. Intense feelings of shame and guilt because they believe that everything that goes wrong is their fault are often harbored. Feelings of inadequacy may lead a depressive to attempt to withdraw from family and friends. Feelings of inferiority may eventually lead to feelings of hopelessness. Nothing can go right and nothing will ever improve, they believe. Often time's feelings of inferiority are a result of the depressive's demanding expectations of him or herself (Schwartz, 1992:19–23).

While some depressives may shy away from family and friends, some display an overdependence on others. When they are shunned by those they depend on, they become even more depressed. Their world becomes that much more lonely and hopeless (Wetzel, 1984:453,462).

#### 2.5 Reactive and physical depression

There are two major subcategories of unipolar depression: reactive and physical. Formerly known as exogenous depression, meaning depression from the environment, reactive depression is a response to a particularly stressful or emotionally traumatic event. The death of a loved one, being rejected, divorce, or serious illness can bring about its onset.



Physical depression, formerly known as endogenous depression, meaning depression from within, is the result of deficiencies in neuron communications in the brain (Biomedical Information Corporation, 1985).

#### 2.6 Beck's cognitive theory of depression

#### 2.6.1 Cognitive theory

A prominent, 20th century psychologist named Aaron T. Beck is the founder of the cognitive-behavioral branch of psychotherapy. His theory--Beck's Cognitive theory of Depression to identify the source of depression within the thought processes of the mind. Individuals who experience symptoms like sadness, loss of self esteem and hopelessness are typically plagued with negative paterns of thinking. This theory views thought processes as the "conductors" of emotion. Treatment approaches focus on eliminating these negative thinking paterns, and replacing them with positive, constructive paterns of thinking. Once negative thought processes are gone, their resulting emotional symptoms are eliminated. (Pearstein T. et al., 2002).

#### 2.6.2 Cognitive model of depression

Beck's Cognitive Theory of Depression is divided into three main aspects, which concern the event preceding and during depression. As it is a cognitive theory, it strongly deals with the cognitive perceptions of the brain, which was different from the behavioral theories that were popular during Beck's time, thus making his theory a breakthrough in cognitive research. Briefly put, Beck argued that negative automatic thoughts, generated by dysfunctional beliefs, were the cause of depressive symptoms, and not vice versa.

Beck's main argument was that depression was instituted by one's view of oneself, instead of one having a negative view of oneself due to depression. This has large social implications of how we as a group perceive each other and relate our dissatisfactions with one another (Abela and D'Alessandro's, 2002: 111-128) another study, which was performed on Beck's Theory, was (Sato and Mccann's, 2000:66) study on the Beck sociotropy autonomy scale. The scale had originally meant to identify self feelings that would lead to depression, mainly solitude interpersonal insensitivity, independence, and individualistic achievement. However, the results of the study showed that the independence did not correlate with depression, and the sociotropy not autonomy was a precursor of depression. As they described sociotropy can be


characterized by an individual's emphasis on interpersonal interactions involving intimacy, sharing, empathy, understanding, approval, affection, protection, guidance, and help tend to place importance on seeking approval from others and on trying to avoid disapproval from others as much as possible from the previous study it is seen that a strong correlation with sociotropy and depression was found, which is a trait that is strong when relating to underlying thoughts and emotions. This support for cognitively caused depression is an interesting use of Beck's Theory

Melanin's (1995: 438-442) study of adolescent depression also atempts to validate Beck's theory in a new way, as Beck worked mostly with adults. Indeed, she found that the student's depression was often associated with dysfunctional beliefs and negative future atitudes. She suggests that the cognitive theory has reasonable validity for describing the symptoms of depression for no referred adolescents, and that the subject's depression is closely correlated with his or her ability to deal with dysfunctional atitudes and beliefs, as well as doubt towards the future. Her findings may not sound truly convincing, because she did find some discrepancies. However, the results of this study were not entirely consistent with Beck's theory, particularly the proposition that a predominantly negative self schema underlies the information processing of depressed individuals. From Moilanen theory we see how perhaps at least in adolescents, the idea of the negative self schema is not a clear as Beck wishes it to be.

### 2.6.3 In Beck's cognitive model of depression

It shows how early experiences can lead to the formation of dysfunctional beliefs, which in turn lead to negative self views, which in turn lead to depression. One interesting study on this aspect is(Reed's ,1994: 293-304) study on reducing depression in adolescents. Many studies have ascertained that depression is more common in women in western society. Reed's study amazingly shows a large number of female whose cognitive thinking prevented them from recovering from depression, while the males adjusted much better. He comments that this is from the difference between common early experiences between males and females. Another interesting study compared Beck's Cognitive Theory against the hopelessness theory of depression in predicting depression in adolescents, done by (Lewinsohn et al. 2001). He reported a main finding of this study was support for dysfunctional atitudes as a risk factor under conditions of stress, for adolescent major depressive disorder. This finding provided evidence for the Beckian version of the diathesis stress hypothesis (Lewinsohn et al.



2001: 203–215) An interesting thing to note is that their positive findings for risk factor support Beck's idea that early experience leads to the formation of dysfunctional beliefs, which other studies have not been able to show.

Based on the theory, it was predicted that specificity would emerge on all cognitive measures, with internalizing children reporting more negative cognitions than externalizing children. (Epkins, 2000: 199-208) Consistent with Beck's Theory the findings suggest that the negative cognitive.

## 2.6.4 Beck's cognitive theory of depression Features

An earlier study by Molianen theory showed even stronger results when evaluating college students. This study showed much clearer results: In support of Beck's cognitive theory of depression, the student's current depressive states were consistently found to be related to their negative processing of personal information. The students' cognitive thoughts were shown to be affecting them and as a result they developed symptoms of depression. Molianen impressed by the findings seems to suggest that Beck's theory should be used in further research in the college student population and how depressed students are treated as counselors and therapists would do well to closely look at a student's cognitive thoughts as a way of assisting the student in recovery. These results are positive, because there is enough evidence for Molianen to suggest a cognitive treatment for depression via Beck's Theory. Molianen's work with Beck's Theory is no doubt a welcome look at cognitive thinking. A study done by Boury studied Beck's theory by monitoring student's negative thoughts with the Beck Depression Inventory (BDI). They gave an overview of Beck's ideas: "Individuals who are depressed misinterpret facts and experiences in a negative fashion, limiting their focus to the negative aspects of situations, thus feeling hopeless about the future. A direct relationship is postulated between negative thoughts and severity of depressive symptoms" (Boury et al. (2001: 13-28).

# 2.6.5 Beck's depression inventory

Beck's Theory has formed into what is called Beck's Depression Inventory, which is used to measure depression in many studies. One such study done by Saisto atempted to show how different approaches to becoming a mother could stave off depression common with such a major life event, they hypothesized that if the individual set self focused goals they would be able to think rationally about their



situation. "As expected the results showed that women who adjusted their personal goals to match the particular stage specific demands of the transition to motherhood showed a decrease in depressive symptoms, whereas those who disengaged from the goals that focused on dealing with such demands showed an increase in depressive symptoms" (Saisto et al. 2001: 820-828). As they used Beck's Theory as a background for their study, we can extrapolate that the subject's who had a goal were able to avoid negative thinking patterns more often than the subjects whom did not have focused goals, so we see that many modern theories of depression are actually based off of Beck's Cognitive Theory.

Self-Relevant Negative Attitude, Therefore, it would appear that retaining all three areas of the triad as separate dimensions is not necessary for representing the latent structure of depressive cognition within Beck's framework" (Mcintosh & Fischer, 2000:178-184).

In a study done by Beck himself with Clark and Brown, 2000: 1194-1201) he looks to confirm this by studying psychiatric outpatients. He found that "the cognitive content specificity hypothesis was strongly supported by the present study. Thoughts of loss and failure were uniquely predictive of depression, whereas cognitions of harm and danger were specifically associated with anxiety. Here we see the even Beck himself was working on fleshing out aspects of his theory. Beck is careful to caution us however that his findings are not only from the subjects' cognitive thoughts, in another study atempts to improve on Beck's inclusion of dichotomous reasoning as a fuel for the negative cognitive triad. They explain that in "Beck's model the self related and socially based features of perfectionism are combined and regarded as similarly influencing the development and maintenance of depression.

## 2.6.6 Other theories of depression

In Beck a cognitive therapy and research article about PPD says that: The effects of depression on a person's everyday life can be debilitating and can grow increasingly worse with time. As of yet, the specific cause for this condition remains unknown. The physical and psychological components that accompany depression symptoms have formed the basis for a number of theories on its origin. (Abela, J. R. Z. & D'Allesandro, D. U. 2002: 111-128).



Depression is classified as an affective disorder that disrupts a person's emotional state. Feelings of sadness, loss of interest in daily activities, fatigue and muscle aches and pains are all possible symptoms of this disorder. A person's emotions, thoughts and behaviors are factors that play a part in how this condition is experienced. A theory of depression will incorporate one or more of these factors to explain how this condition develops within a person's life (Beck, A. T. & Brown, G. 1988: 77-100).

### 2.6.6.1 Neurobiology theory

` The neurobiological theory of depression identifies specific neural processes that contribute to the symptoms a person experiences. Chemicals in the brain called neurotransmitters are responsible for regulating the processes that take place in the body. Epinephrine, dopamine and nor epinephrine are the chemicals involved in regulating emotions and thought processes. When any one of these chemicals is out of balance, depression symptoms can result. Treatment models based on this theory use antidepressant medications as a way to correct whatever chemical imbalances may be present in the brain (Savasir, I. 2001: 359-364).

#### 2.6.6.2 Malaise theory

The Malaise Theory of depression views the disorder as caused by a hyperactive immune system response that attacks specific chemical processes within the body. This theory defines depression as a sickness behavior caused by higher than normal levels of cytokines in the system. Cytokines are a class of immune active agents. These agents are believed to be responsible for the fatigue, and muscle aches that accompany some forms of depression. Symptoms become further aggravated by negative thought processes and emotions. Malaise theory views antidepressants as a type of analgesic, or pain-killer that reduces the number of cytokines in the system, which is why symptom relief occurs (Schwartz, 1992:19–23).

#### 2.6.7 Persons at risk for developing depression:

Research has shown that the poor, the unemployed, low- status workers, the physically ill, the young, students, and women have a higher chance of developing depression than others. The most interesting statistical differences dealing with depression's prevalence rate between different groups occur between men and women. Women are twice more likely than men to suffer from depression .Women have a 20 percent to 26 percent lifetime risk of developing depression, compared to an 8 percent



to 12 percent lifetime risk for men .Six percent of women who suffer from depression require hospitalization, while half as many men--3 percent--require hospitalization (Wetzel, 1984, New York: Gardner Presswww.thelancet.com published online July 2, 2010).

There are several explanations for the discrepancy of rates of depression in men and women. The first explanation is women are more likely than men to seek treatment Another theory is psychologists and psychiatrists are more likely to diagnose a woman as having depression than they would diagnose a man as suffering from depression an extension of the stereotype women are the weaker sex.

Perhaps, though, the difference in rates lies in the fact women is physiologically different than men. This hypothesis has yet to be proven (Schwartz, 1992:19–23).

Another theory holds that women are more likely to suffer from depression than men because they confide amongst themselves more than males. In a study conducted by Alan Booth, it was discovered men are more likely to have female confidants than women are to have male confidants' .What does this mean? Well, studies have shown people who are married are less likely to develop depression than single people (Dean, Dum in, Ensel, Light, Lin, Tausig, & Woelfel, 1986, New York: Academic Press, Inc). Having an opposite sex confidant may substitute for a spouse with single people.

Age of onset is another difference between the sexes. Men develop depression at about 50 years of age while the average age of onset for women is 35 years of age (Comer, 1992, New York: W. H. Freeman & Company,)

### 2.6.8 Causes of depression

There are four major views as to what causes depression. They are: the psychoanalytic theory, behavioral theory, cognitive-behavioral theory, and the biological theory.

### 2.6.8.1 The psychodynamic view of depression

The psychodynamic view of depression authored by Freud, anchors on the principle of loss. Therapists privy to this view of depression believe the root of all depression lies in the loss of something loved, whether it be a person or an object. The loss can be real or it can be imagined.



In a study done by P. J. Clayton in the late 1970s, widows and widowers were studied for a year after the death of their spouses. While depression brought about by the death of a loved one is excluded as being a depressive episode by the psychological community, Clayton found that 45 percent of his subjects fit the criteria for a diagnosis of depression (Lowry, 1984, Warren, H. Green, Inc).

#### 2.6.8.2 The behavioral view

Behaviorist theorists and clinicians believe depression is learned. Charles Ferster, one of the first researchers to suggest a link between depression and behavior, hypothesized depression develops as a result of a lack of positive reinforcement for the depressive's actions.

Feaster hypothesized depressives lack motivation and control and as a result receive negative feedback from others. Other behaviorists tend to agree with this view and see the presence of negative reinforcements as compounding the depression by causing more and more self esteem to be lost. Other behaviorists, like Peter Lewinsohn, believe there may not even be any reinforcements in a depressive's life (Wetzel, 1984, New York: Gardner Press).

#### 2.6.8.3 The cognitive behavioral view

An offshoot of the behavioral model is Aaron Beck's cognitive-behavioral view of depression. Beck believes "depressives suffer from a kind of basic thinking that distorts reality. Depressives, according to Beck, distort reality by harboring negative feelings about anything and everything. They tend to take things too personally and believe the future is bleak and dim (Papalia & Olds, 1988, New York: McgrawHill Book Company). These inferior feelings, Beck believes, lead to more negative experiences for the depressive. In turn, the depressive develops more thoughts of worthlessness and inferiority (Schwartz, 1992:19–23). Often a depressive expects too much of him or herself, Beck believes. Failure is an accepted way of life and the depressive believes there is nothing he or she can do about it (Papalia & Olds, 1988, New York: McgrawHill Book Company) learned helplessness is the result.



### 2.6.8.4 Biological view

Evidence that depression is related to genetics has been growing recently, as more and more research is being done to examine the role the brain and heredity play in the likelihood an individual will develop depression.

For the first time in the early 1980s visible evidence of depression having a biological tie showed up in laboratory tests that examined the brain's functioning in depressives. Studies showed that at least half of the depressives examined had increased levels of activity in the hypothalamic- pituitary-adrenal axis of the brain.

Other medical evidence that supports the biological model of depression are the documentation of higher than normal amounts of cortisol discharges in the adrenal glands of depressives and eccentric brain wave patterns as recorded by electroencephalograms (EEGs) (Lowry, 1984: Warren, H. Green, Inc).

Research has also shown depression has a tendency to run in families. Most published research covers bipolar depression, but researchers have concluded there is reason to believe unipolar depression can be inherited and is thus a biological illness.

## 2.6.8.5 Other views on depression

In addition to the three major views of what causes depression, the psychological community has explored other potential causes. One avenue researchers are looking at is the effect an individual's diet has on his or her mood.

Studies have shown there is a correlation between the amount of caffeine and carbohydrates a person consumes and how well his or her affect is. While caffeine stimulates the nervous system, too much of it may depress the nervous system.

The explanation for caffeine's depressive effect on a person's affect lies in what caffeine stimulates. If consumed just before bed time, caffeine alters an individual's sleep/wake cycle by delaying sleep, or preventing an individual from achieving the full benefits of sleep. Another explanation for depression and one that's attracting more and more attention deals with the chronic biological principle. Studies have shown there may be a correlation between a person's daily schedule in terms of his or her sleep/wake cycle and affect (Schwartz, 1992:19–23).



### 2.6.9 Treatment Of depression

While depression can be a debilitating illness, the odds of successfully treating it are encouragingly high .As many as, 85 percent to 90 % of depressives who seek treatment get better. Unfortunately only approximately 30 % of the estimated 10 million depressives in the United States receive therapy (Hegg, 1991: NEA Today 23). Overall, it is believed 64 percent of all depressives in the United States recover within six months, many without receiving treatment (Comer, 1992: New York: W. H. Freeman & Company). There are essentially two types of treatment for depression: psychotherapy and drug therapy. Psychotherapy has the clinician acting as a confidant to the depressive. The psychotherapist will often employ counseling techniques from each of the three major views of depression, rather than rely on one technique, like psychoanalysis. Some patients respond better to behavioral therapy while others may respond better to psychoanalysis. The key to successful therapy is using the right mix of techniques from the different models.

### 2.6.9.1 Psychodynamic techniques

Because psychodynamic theorists contend depression develops in response to a loss--often a loss at the unconscious level psychodynamic clinicians make extensive use of free association (Comer, 1992: New York: W. H. Freeman & Company). The hope is that by having the depressive talk about whatever is on his or her mind the identity of the lost object will be revealed, or at least hints of what the object is will come to the surface. The therapist and patient discuss events that may have led to a loss or losses and attempt to interpret the events. The interpretations are intended to provide the patient with some insight into his or her self anger that Freud believed is present with a loss that precipitates a depressive episode.

### 2.6.9.2 Behavioral & Cognitive Behavioral techniques

Followers of the behavioral and cognitive-behavioral schools believe depression is learned and then negatively reinforced because there are little or no positive reinforcements available to depressives. Because of this, depressives are likely to have a deficiency in social skills, as a result behaviorist clinicians' focus on positive reinforcement as a means of treating depressives.



Beck encourages patients to get involved with their therapy (Schwartz, 1992: 19–23), having the patient talk about present events Beck believes is the key to determining the cause of the depression. Past events are discussed only to the extent of their relationships with present events. The therapist and the patient then collaborate to develop homework assignments that will hopefully provide the patient with positive reinforcements in his or her development of social skills (Wetzel, 1984: New York: Gardner Press).

Lewinsohn has even gone so far as to develop a class for depressives, complete with text books and all. One study found an 80 percent success rate in treating patients' depression this way (Comer, 1992: New York: W. H. Freeman & Company).

### 2.6.9.3 Hope is a part of treatment

For depressives, life is a struggle. They are psychologically paralyzed, trapped in a dark tunnel, with the end seemingly too far away. Some depressives see the light at the end of the tunnel, but they cannot run or walk. Frustration reigns and self-blame is a way of life. While research to unlock the mysteries of the disease is an ongoing process and treatments are being refined, there are some basic principles depressives and their family and friends should keep in mind.

Depression is not a sign of weakness. While many depressives tend to keep their illness to themselves, the Biological Information Corporation encourages depressives to "Get it out in the open and treat sick it like any other disease." Psychologists also encourage depressives to get out and relax and not try to do too much too soon (American Mental Health Fund, 19: U.S. Department of Health & Human Services 89). Depressives shouldn't hesitate to consult with family and friends when faced with important decisions that must be made immediately.

Family and friends of depressives should be supportive and non-judgmental. A person can't "snap out of it." For many depressives the difference between a good day and a bad day is as little as a friend or family member taking a walk with them or listening to their frustrations. Depression may not be preventable but its effects can be alleviated.



### 2.6.10 Impact of depression on the family

Diagnosis of depression lead to severe stress on the family especially if the disease effect one of the parents especially the mother because she has the greater role in child baring and taking care all the family will effect, the child will miss the mother support, encourage, taking care, educate or guide, or give the emotion for their child and then the relationship through the family will effect and that will affect their behavior in the future.

## **3. Definition of postpartum depression**

## 3.1 Operational definition of PPD

It is a condition occurs after delivery related to many undetermined reasons has very dangerous effect on the mother emotion and very bad effect on the baby and the family as hole. and in this study I consider Edinburgh scale to determine if the women have PPD or not ,this international scale measure score from 0 to 15 ,the women score from 0 to 9 mean no PPD, from 10 to12 mean possible existence of PPD, more than 13 mean the women have PPD and need intervention treatment.

# 3.2 Theoretical definition of PPD

## **Definition of PPD**

The postpartum period is considered a time of increased risk for the onset of mood disorders. Research has shown that a woman is significantly more likely to be admitted to a psychiatric hospital within the first 4 weeks postpartum than at any other time in her life (Kendell, Chambers & Platz, 1987: 662-673).

Considering the legal and ethical aspects of pediatric providers screening for PPD among mothers of children in their care Childbirth represents for women a time of great vulnerability to become mentally unwell, with postpartum mood disorders representing the most frequent form of maternal morbidity following delivery (Stocky & Lynch, 2000: 73-87).

These affective disorders range in severity from the early maternity blues to postpartum psychosis, a serious state affecting less than 1% of mothers (Evins & Theofrastous, 1997: 241-246).

Along this spectrum is postpartum depression, a condition often exhibiting the disabling symptoms of dysphasia, emotional liability, insomnia, confusion, anxiety,



guilt, and suicidal ideation? Frequently exacerbating these indicators are low selfesteem, inability to cope, feelings of incompetence, and loneliness (Beck, 1992: 166-170, Mills, 1995: 99-105, Ritter, Hobfoll, Lavin, Cameron, & Hulsizer, 2000: 576-585).

While postpartum depression is a major health issue for many women from diverse cultures (Affonso, De, Horowitz, & Mayberry, 2000: 207-216), and has well documented public health consequences, this affective condition often remains undiagnosed Similar to the receipt of appropriate treatment the link between postpartum depression screening and an increase in the number of mothers who recover from postpartum depression has not been clearly demonstrated (Dennis, 2003a: 61-70).

In the literature about general depression, the effect of screening on recovery from depression is highly variable. In review examine screening for depression in adults (Pignone et al. 2002: 765-776).

Resulting in limited management, the objective of this chapter is to critically review the literature to determine the current state of scientific knowledge related to the detection, prevention, and treatment of postpartum depression. Hospital admissions of women occur during the postpartum period (Duffy, 1983: 11-21), is a form of clinical depression which can affect women, and less frequently men, typically after childbirth. Studies report prevalence rates among women from 5% to 25%, but methodological differences among the studies make the actual prevalence rate unclear. Among men, in particular new fathers, the incidence of postpartum depression has been estimated to be between 1.2% and 25.5%. Postpartum depression occurs in women after they have carried a child. Symptoms include sadness, fatigue, changes in sleeping and eating patterns, reduced libido, crying episodes, anxiety, and irritability. Although a number of risk factors have been identified, the causes of PPD are not well understood. Many women recover with a treatment consisting of a support group or counseling of these three factors formula feeding a history of depression and cigarette smoking have been shown to be additive effects (Hickey et al. 1997, Seguinet al. 1995: 583-589, Areias et al. 1996: 30-33).



#### **3.3 Postpartum depression**

(PPD) is a complex mix of physical, emotional, and behavioral changes that happen in a woman after giving birth. According to the DSM IV, a manual used to diagnose mental disorders, PPD is a form of major depression that has its onset within four weeks after delivery. The diagnosis of postpartum depression is based not only on the length of time between delivery and onset but also on the severity of the depression (Green A. R. & Carrillo J. E. 2006:425-431).

#### 3.4 Postpartum depression according to DSM IV

Postpartum depression is linked to chemical, social, and psychological changes associated with having a baby. The term describes a range of physical and emotional changes that many new mothers experience. The good news is postpartum depression can be treated with medication and counseling Postpartum depression(PPD) is a complex mix of physical, emotional, and behavioral changes that happen in a woman after giving birth. According to the DSM IV, a manual used to diagnose mental disorders, PPD is a form of major depression that has its onset within four weeks after delivery. (News Letters Dictionary Physician Directory: 2005)

### **3.5Postpartum disorders**

A study about psychology of women quarterly (2009) explains the postpartum affective disorders are typically divided into three categories: postpartum blues, postpartum depression, and puerperal psychosis. Postpartum blues is the most common postpartum mood disturbance with prevalence estimates ranging from 30% to 75%. Symptoms which often begin within the immediate postpartum period and remit within days include mood liability, irritability, tearfulness, generalized anxiety, and sleep and appetite disturbance. By definition, postpartum blues are transient, mild, time limited, and do not require treatment other than reassurance (Kennerly & Gath, 1989: 356-362)

Conversely postpartum psychosis is a very severe depressive episode characterized by the presence of psychotic features. This condition is the most severe and uncommon form of postpartum affective disorders, with rates of 1 to 2 episodes per 1000 deliveries (Kendell et al. 1987: 662-673). The clinical onset is rapid with symptoms presenting as early as the first 48 to 72 hours postpartum and the majority of episodes develop within the first 2 weeks postpartum, the symptoms are typically depressed or elated mood which can fluctuate rapidly, disorganized behavior, mood liability, delusions and hallucinations (Brockington et al. 1981).



Among these conditions is postpartum depression, a no psychotic depressive episode beginning in the postpartum period (Cox, Murray & Chapman, 1993, O'Hara, 1994, New York: Springer Verlag. Watson, Elliott, Rugg & Brough, 1984: 453-462).

At present postpartum depression is not classified as a separate disease, it is diagnosed as part of affective or mood disorders in both the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) and the World Health Organization's International Classification of Diseases (ICD-10).

According to the DSM-IV postpartum depression is a depressive disorder with onset within the first 4 weeks postpartum. However to be comprehensive in the literature review and to be able to include the best evidence possible, for this practice guideline, postpartum depression is defined as any depressive episode that occurs within the first year postpartum symptoms of postpartum depression are similar to depression unrelated to childbirth (Wisner, Parry &Piontek, 2002: 194-199).

However, despite these similarities, postpartum depression is frequently exacerbated by other indicators such as low self-esteem, inability to cope, loneliness, feelings of incompetence, and loss of self (Beck, Reynolds & Rutowski, 1992: 166-170) Mill Finchilescu & Lea, 1995: 99-105.) Righetti Veltema, Conne Perreard, Bousquet & Manzano, 1998: 167-180). Ritter, Hobfoll, Lavin, Cameron& Hulsizer, 2000: 576-585).

## **3.6 Definitions of terms**

### 3.6.1 Baby blues

Baby blues is a term used to describe a self-limiting, relatively mild type of depression experienced by 30 to 80% of all new mothers. Symptoms include moodiness, anxiety, sadness, crying spells, insomnia, and fatigue. Baby blues unusually begin 3 to 10 days after childbirth and end within two weeks. (GreenA. R. & Carrillo, J. E. 2006:425-431).

#### 3.6.2 Postpartum major depression

Unlike the baby blues, postpartum major depression experienced by about 10% of women who have given birth tends to develop three or more weeks after delivery. Mood symptoms are more severe and last longer. Symptoms may include crying spells, poor concentration, difficulty making decisions, sadness, feelings of inadequacy and suicidal thoughts. Physical symptoms similar to hypothyroidism



such as sensitivity to cold, fatigue, dry skin, slowed thinking, constipation and fluid retention, may also be experienced (Bartley A. & Spooled, 2004:the Medical Review Board, 2010).

### 3.6.3 Postpartum psychosis

Sometimes called puerperal psychosis or postpartum psychotic depression, this type of postpartum depression will develop in 1 to 2 women in 1000,most cases will begin within the first two weeks after giving birth, although a second peak has been observed to occur one to three months after delivery. Postpartum psychosis may be preceded by worsening insomnia, agitation, confusion, memory problems, irritability and anxiety. Symptoms of postpartum psychosis include intrusive thoughts, delusions, hallucinations and inappropriate responses to or disinterest in one's child. Postpartum psychosis symptoms may change rapidly, with periods of elevated mood being quickly followed by profound sadness or rage. Periods of lucidity are common and not necessarily an indicator of recovery. Although recovery may occur abruptly, it is more common for postpartum psychosis to evolve into severe, prolonged depression.

## 3.7 Evolutionary psychological hypothesis

Human infants require an extraordinary degree of care. Lack of support from fathers and/or other family member will increase the costs borne by mothers, whereas infant health problems will reduce the evolutionary benefits to be gained (Hagen, 1999). If ancestral mothers did not receive enough support from fathers or other family members, they may not have been able to afford raising the new infant without harming any existing children, or damaging their own health (nursing depletes mothers' nutritional stores, placing the health of poorly nourished women in jeopardy).

For mothers suffering inadequate social support or other costly and stressful circumstances, negative emotions directed towards a new infant could serve an important evolved function by causing the mother to reduce her investment in an unaffordable infant, thereby reducing her costs. Numerous studies support the correlation between postpartum depression and lack of social support or other childcare stressors (Beck, 2001: 275-285, Hagen, 1999).

Kruckman using observations from anthropological field work, suggests that supportive rituals and knowledge, if projected to the mother in a meaningful and sincere



fashion, can affect the hypothalamus, pituitary and adrenal function and the production of endocrine signal molecules, and reduce the expression of anxiety or panic in postpartum women.

Mothers with postpartum depression can unconsciously exhibit fewer positive emotions and more negative emotions toward their children, are less responsive and less sensitive to infant cues, less emotionally available, have a less successful maternal role attainment, and have infants that are less securely attached, and in more extreme cases, some women may have thoughts of harming their children (Beck,1995:298–304,1996b: 98-104, Cohn et al. 1990:15–23, 1991:367–376, Field et al. 1985: National Academy Press Fowles, 19961: 75–82, Hoffman and Drotar, 1991, Jennings, et. al., 1999, Murray, 1991:219–232 Murray and Cooper 1996: 2512-2526). In other words most mothers with PPD are suffering some kind of cost like inadequate social support and consequently are mothering less (Hagen, 1999).

### 3.8 Symptoms of PPD depression

Somatic symptoms of depression, including loss appetite and sleep disturbances, are often present in women with postpartum depression (Nonacs, & Cohen, 1998: 34-40). Distinguishing between these depressive symptoms and the supposed 'normal' sequelae of childbirth can make postpartum depression potentially difficult to diagnose (Hostetter & Stowe, 2002 C for the DSM-IV criteria for a major depressive episode. Postpartum depression is a major health issue for many women (Affonso, De. Horowitz & Mayberry, 2000:207-216). A meta-analysis of 59 studies suggests that approximately 13% of women experience postpartum depression (O'Hara & Swain, 1996: 37-54). With the inception rate greatest in the first 12 week postpartum (Goodman, 2004); these rates do not differ between prim-porous and multi -porous mothers. While up to 20% of women with Nursing Best Practice Guideline postpartum blues will continue to develop postpartum depression (Campbell, Cohn, Flanagan, Popper & Meyers, 1992: 29-47). O'Hara, Schlechte, Lewis & Wright, 1991b:801-806) other women enjoy a period of well-being after delivery followed by a gradual onset of depressive symptoms.

This hidden morbidity has well documented health consequences for the mother, child, and family. While women who have suffered from postpartum depression are twice as likely to experience future episodes of depression over a 5year period (Cooper & Murray, 1995: 191-195) infants and children are particularly vulnerable.



Untreated postpartum depression can cause impaired maternal-infant interactions (Murray, Fiori Cowley, Hooper & Cooper, 1996: 2512-2526) and negative perceptions of infant behavior (Mayberry & Affonso, 1993:207-216) which have been linked to atachment insecurity (Hipwell, Goossens, Melhuish, & Kumar, 2000:157-175, Murray, 1992:543–561) and emotional developmental delay (Cogill, Caplan, Alexandra, Robson & Kumar, 1986: 1165-1167,Murray, Sinclair, Cooper, Ducournau, Turner & Stein, 1999: 1259-1271, Whiffen & Gotlib, 1991:160–165). Marital stress resulting in separation or divorce (Boyce, 1994: 472-476, Holden, 1991: 211-22) is also a reported outcome. The cause of postpartum depression remains unclear (Cooper & Murray, 1998: 1884-1886) with extensive research suggesting a multi factorial etiology (Ross, Gilbert Evans, Sellers & Romach, 2003: Toronto Centre for Addiction and Mental Health.).

In particular, a variety of biological, psychological, and socio cultural variables likely interact to produce vulnerability to postpartum depression, and the causes or "triggers" of postpartum depression likely vary from woman to woman. Although researchers and health professionals have long speculated that postpartum depression may be linked to the dramatic hormone changes which accompany pregnancy and childbirth, to date no particular hormone has been consistently associated with postpartum depression, nor have any differences in hormones been identified between women with and without postpartum depression (Bloch et al. 2000).

### 3.9 Identification of postpartum depression

To promote the identification of women experiencing postpartum depression, self-report measures have been developed specifically for use within a postpartum population. Self-report measures are easier and less costly to administer, and do not require the presence of trained specialists. The most well established self-report tool for the identification of postpartum depression is the Edinburgh Postnatal Depression Scale (EPDS), a 10 item self report measure that has been translated into diverse languages. The EPDS has been rigorously validated against clinical diagnostic interviews (Cox, Holden & Sagovsky, 1987: 782-786).

This incongruity between expectations and lived experience was described in seven areas: labor and delivery, life with their infants, self as mother, relationship with partners, support from family and friends, life events and physical changes



(BerggrenClive, 1998: 35-40). When women became disillusioned with motherhood and perceived they had failed to be the 'perfect mother' (BerggrenClive, 1998:Canadian Journal of Community Mental Health, 17(1), 103-120, Interventions for Postpartum Depression, 46-47) their emotions of despair and sadness started a spiral downward into postpartum depression, research also suggests that the meaning and context of postpartum depression varies across cultures. For example some studies have identified culturally-specific risk factors for postpartum depression, including the sex of the infant in women in India and Hong Kong (Lee et al. 2002: 233-238), Rodrigues, Patel, Jaswal & de Souza, 2003: 1797-1806.). Therefore caution must be used in applying the interventions described in this guideline with culturally diverse women, and additional research in this area is needed similar to the lack of research regarding postpartum depression in culturally diverse populations, there have been few studies addressing interventions for other diverse populations of women with postpartum depression. These include but are not limited to women living in rural and remote communities, Aboriginal women, adolescent and single mothers, lesbian and bisexual mothers, adoptive mothers and mothers with disabilities, additional research is needed to ensure that the interventions discussed in this guideline are equally effective for diverse populations of women.

### **3.10 Self care strategies**

Self care strategies are important for all women during the postpartum period for women experiencing depressive symptoms, self care may assist in alleviating depressive symptoms, in conjunction with appropriate medical and psychological interventions. It is important to note that engaging in self care practices alone will not alleviate moderate or severe postpartum depression (Paxton, Shrubb, Griffiths, Cameron & Maunder, 2000: 137-144).

Alternatively research has consistently identified a significant relationship between lack of social support and the development of postpartum depression (Brugha et al. 1998: 63-79, Robertson, Grace, Wallington & Stewart, 2004:289-295), this support is particularly important from the mother's partner (Beck 2001, 50(4), 242-250; Eberhard Gran et al. 2002: 113-117, Steinberg & Bellevance, : 209-233).



### 3.11 Environment effect of postpartum depression

In the Arab culture, a seclusion period of 40 days with a Educating health professionals in the management of postpartum depression is important (Appleby et al. 2003: 261-266) focus on rest, recuperation and social support is often observed in the postpartum period (Hundt et al. 2000: 529-542).

In one study, it was reported that educating health visitors in the use of the Edinburgh Postnatal Depression Scale and in cognitive behavioral and counseling skills resulted in interventions that were effective and highly acceptable to mothers with postpartum depression (Seeley, Murray & Cooper, 1996: 135-138.). In the Macarthur (2002: 378-385) preventive trial the intervention was well designed to include training symptom checklist, care plans and evidence based guidelines so that care would be tailored to meet the individual woman's needs. The results of this particular study demonstrated improved psychological health outcomes in women at 4-months postpartum. Postpartum depression (PPD) is a common clinical disorder with symptoms identical to that of no puerperal major depressive disorder with the caveat that women are typically much more anxious, with frequent preoccupation about their ability to parent their new child and the health of the infant. Symptom onset is typically within six weeks of delivery (Sheila M., Marcus, 2009:61-70).

## 3.12 Depression disease relationship

Depression is among the important reasons for disease related disabilities and more prevalent in women, higher rates of depression in women is related to reproductive period (puberty, pregnancy, postpartum period and menopause) and the joint effects of biological and environmental provoking experiences (Kessler RC. Epidemiology of women and depression. Journal of active disorders 2003).

Most studies on women had focused on postpartum period and pointed out that in this period women are highly vulnerable to depression. Depression rates increase in the first year after delivery (Danaci AE, Dinc G, Deveci A.et al.2002:125-129) and postnatal depression in Turkey: epidemiological and cultural aspect (Schofield, Downing, Francis & Keelan, 1981).



## 3.13 The neurobiology of postpartum depression

## **Depression and neuroimaging**

With the advent of noninvasive imaging techniques opportunities to explore changes in brain structure and function in mood disorders are expanding, researchers have begun investigating possible changes or differences in the brain in depression. Extensive research has been reported regarding neuroimaging findings in depression. Reviews of this area may be found in Shekhar and Sheline, Sanders G, Freilicher J, Lightman SL. Psychological stress of exposure to uncontrollable noise increases plasma oxytocin in high emotionality women (Psych neuroendocrinology1990: 47-58).

### **3.14 Post partum depression in Palestine**

In September 2006the MOH published and distributed to all Ministry MCH clinics the informational brochure on PPD entitled: "What you should know about Postpartum Depression: Information for women who are pregnant or after delivery." Because the postpartum period is considered a time of increased risk for the onset of mood disorders, the brochure is in Hebrew and an Arabic version is being prepared. Plans include distribution to additional sites, such as hospital maternity departments. The brochure can be requested in quantity by individuals or organizations free of charge. In addition, the MOH is currently preparing information regarding PPD for its website

#### **Categories of postpartum depression**

Research has shown that a woman is significantly more likely to be admitted to a psychiatric hospital within the first 4 weeks postpartum than at any other time in her life (Ken dell, Chambers & Platz, 1987: 662-673, Francis &Keelan, 1981) and up to 12.5% of all psychiatric hospital admissions of women occur during the postpartum period (Duffy, 1983: 11- 21), postpartum affective disorders are typically divided into three categories: postpartum blues, postpartum depression, and puerperal psychosis. The symptoms are typically depressed or elated mood which can fluctuate rapidly, disorganized behavior, mood liability, delusions, and hallucinations (Brockington et al. 1981: 829-833). Among these conditions is postpartum depression a nonpsychotic depressive episode beginning in the postpartum period (Cox, Murray & Chapman, 1993: 27-31, O'Hara, 1994, New York: Springer Verlag. Watson, Elliott, Rugg & Brough, 1984:453-462). At present, postpartum depression is not classified as a separate



disease; it is diagnosed as part of affective or mood disorders in both the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders

### 3.15 Impact of postpartum depression and mother-child relationship interaction

Emotional disturbance in children has been linked to maternal depression. One notion postulated is that the mother's depression influences the interaction between her and the child which may then lead to insecure attachment. There is evidence of a higher incidence of insecure attachment in children whose mothers have suffered major depression. The identification of causal factors however is complex. Effects may be particularly devastating for children up to about 18 months, for whom contact with caretakers is primary. An area of study that has been neglected is the difference between children whose mothers continue to be depressed and those whose mothers cease being depressed. Thirty-eight women were assessed with their children (age 19 months), composing three groups, namely those with postnatal depression with current symptoms postnatal depression in remission or no history of postnatal depression. Information gathered included measurement of the mother's current symptoms of depression and history of depression, an assessment of recent major life events and identification of chronic social problems. Areas included were work, finances, health, relationships, legal, and other (FisherJam2010: 140-145).

Children were assessed for sociability on the basis of the child's initial responses to a stranger and mother and child were observed in structured play, a developmental assessment was completed as well, two main findings of the study emerged: postnatal depression was significantly associated with reduced mother child interaction when the child was 19 months old and the association was found for mothers who continued to show signs of depression as well as for those that had recovered, chronic marital and social difficulties also had effects upon interaction, speculations regarding these results are that the depression influences how mother and child relate and that the extent of the effect is related to duration of the symptoms. Marital and social problems may be a cause or an effect of depression or both the child's reaction may also serve to affect mother's symptoms. While these findings are statistically sound there was considerable variability in the sample meaning that some mothers showed little or no difficulty with their children despite symptoms of depression while others had more difficulty than average (Consumer summary produced by reliance medical information, Inc. 2007).



### 3.16 Interventions for postpartum depression

Researchers have estimated that postpartum depression (PPD) affects 13–16% of new mothers in the United States (Robertson, Grace, Wallington, & Stewart, 2004: 289-295), studies have shown that as many as 50% of PPD cases are undiagnosed (Chaudron et al. 2005: 331–338, Murray, Woolgar, Murray & Cooper, 2003:246-250, O'Hara & Swain, 1996:37-54), despite substantial debate as to whether PPD constitutes a distinct type of depression, the American Psychiatric Association (2000) has categorized PPD as a specific type of Major Depressive Disorder (Boyd Le.& Somberg , 2005, RiecherRossler & Hofecker FallaHBour, 2003, Whiffen, 1991:160–165). Recent medical explanations for postpartum depression (PPD) have generally framed the phenomenon as a psychiatric disorder with hormonal and / or neuro chemical underpinnings (Chrisler &JohnstonRobledo2002, Dalton & Holton2001, Epperson 1999, American Journal of Psychiatry, 158(10), 1631-1637, Postnatal Depression Scale. Acta Psychiatrica Scandinavica, 104(4), 243-249).

## **3.17Treatment of postpartum depression**

There is limited published research regarding the effectiveness of treatment for postpartum depression with approaches including pharmacological, psychological, psychosocial, hormonal, and other diverse strategies. What is unequivocal is that treating postpartum depression is a challenging undertaking that requires specific knowledge and expertise. This section is based on a literature review for each of the main treatment approaches.

- Pharmacological.
- Psychological interventions.
- Interpersonal psychotherapy.

Three studies have been found evaluating the effectiveness of interpersonal psychotherapy (IPT) on the treatment of both ante partum and postpartum depression. In a 16-week pilot study conducted with 13 pregnant US women who met DSM-III-R criteria for major depression, participants attended weekly 50minute interpersonal sessions and completed pre and post treatment the Hamilton Rating Scale for Depression (HRSD), Beck Depression Inventory (BDI), and EPDS (Spinelli, 1997:1028-1030), specific intervention details were not reported. Depression ratings decreased significantly throughout the treatment program and of the 10 women



available at the 12-week assessment, none reported depressive symptomatology cognitive behavioral therapy in addition to the UK trial previously discussed that evaluated the effectiveness of fluoxetine and cognitive behavioral counseling (Appleby, et al. 1997:261-266), three studies have been found incorporating a cognitive behavioral therapy (CBT) intervention in the treatment of postpartum depression. In an Australian trial, the effectiveness of CBT alone on postpartum depression was evaluated

- Peer Support
- Partner Support: Non-Directive Counseling: The importance of non-directive counseling, sometimes called 'listening visits,' has been highlighted in the literature (Clement, 1995, Gerrard, et al. 1993, Holden, 1987: 6-10).
- Relaxation/Massage Therapy: Massage and relaxation therapies have been shown to decrease anxiety and elevate mood (McLean & Hakstian, 1979, Reynolds & Coats, 1986: 653-660).
- Electroconvulsive therapy: For severely depressed pregnant women electroconvulsive therapy (ECT) has been advocated by several researchers as an effective treatment option (Bhatia, Baldwin, & Bhatia, 1999: 270-274, Dorn, 1985, Livingston, Johnstone, & Hadi, 1994: 116-118, Rabheru, 2001, Walker& Swartz, 1994, Yellowlees & Page, 1990: 679-680).

## 3.18 Prevention of postpartum depression

Preventive interventions incorporate any strategy that (1) reduces the likelihood of a disease/condition affecting an individual (primary prevention), (2) interrupts or slows the progress of a disease/condition through early detection and treatment (secondary prevention), (3) slows the progress of a disease/condition and reduces resultant disability through treatment of established disease (tertiary prevention) (Shah, 1998, Toronto: University of Toronto Press). These interventions can be classified into different categories depending on the target population: (1) Universal measures are cost beneficial for everyone in the eligible population and target the whole population(2) Selective strategies are cost beneficial to a subgroup population who are considered to be at higher risk and (3) Indicated approaches can be applied to asymptomatic groups who have risk factors that could justify more costly and extensive interventions, (Mrazek & Haggerty, 1994, National Academy Press). Complex interactions of bio psychosocial risk factors with individual variations should be considered when planning



intervention programs, as a single approach will not be applicable to all women. Standards for developing a preventive intervention has been suggested and when applied to postpartum depression should include:

• Establishing a base occurrence rate, recognizing that not all women with identified risk factors will develop postpartum depression.

• Determining the predictive accuracy of screening procedures such that vulnerable women are specifically identified.

• Being cognizant that screening procedures will exclude some women who will later develop postpartum depression.

• Devising interventions that are brief enough to be acceptable, long enough to achieve lasting benefits, intensive enough to have an effect, user friendly, and not too expensive.

• Assessing outcomes with regular monitoring and follow up that includes a wide range of outcomes not just preventing the onset of postpartum depression.

• Recognizing that intervention non-compliance and participant attrition are major problems and that those who decline enrolment or withdraw from involvement may be those at greatest risk (Lorion, 1991: 859-865, Warren H. Green, Inc.).

Criteria used to assess potentially preventable conditions include the current burden of suffering (impact on the individual and on society), the maneuver risks and benefits, screening accuracy, and safety, simplicity, cost and acceptability, and intervention effectiveness (Shah, 1998),applying these principles postpartum depression is appropriate for preventive interventions as the long term health consequences have interpersonal psychotherapy.

Three studies have been found evaluating the effectiveness of interpersonal psychotherapy (IPT) on the treatment of both ante partum and postpartum depression Antidepressant Medication Women who have suffered from one episode of postpartum depression are justifiably apprehensive regarding a recurrence with future births.

## **3.18.1 Interpersonal psychotherapy**

Interpersonal therapy (IPT) was initially formulated as a time-limited, weekly outpatient treatment for depression provided by a trained mental health professional (Klerman & Weissman, 1993, DC: American Psychiatric Press Inc). While this method makes no assumption about etiology, the connection between depressive symptomatology onset and interpersonal problems is used as a treatment focus. IPT as an acute treatment generally has three phases:



(1) Diagnosis evaluation, psychiatric social history including current social functioning and close relationships, their patterns, and mutual expectations and linkage between the current interpersonal situation within one of the four interpersonal problem areas (i.e. grief, interpersonal role disputes, role transitions or interpersonal deficits) to set the framework for treatment.

(2) Pursuit of strategies that are specific to the chosen interpersonal problem area and

(3) encouragement to recognize and consolidate therapeutic gains and develop ways to identify and counter depressive symptoms should they arise again in the future Cognitive Behavioral Therapy Cognitive behavioral therapy (CBT) is an approach based on the notion that the way an individual perceives an event determines in part how they will respond, both affectively and behaviorally (Hollon,1998). According to cognitive theory, dysfunctional beliefs and maladaptive information processing lie at the core of many psychiatric disorders.

## 3.18.2Psychological debriefing

The efficacy of psychological debriefing has been extensively debated in recent years (Arendt & Elklit, 2001) with the issues raised having ramifications beyond the field of psychological trauma (Deahl, 2000: 929-939).

### 3.18.3Intrapartum support

As the modern obstetric era emerges, laboring women have become more isolated from the community of supporters that were once a defining feature of childbirth. Although partners and relatives are allowed to be present during delivery, a considerable number of women still experience lab our without continuous support. Furthermore, obstetrical care during the past several decades has viewed lab our as a high-risk situation necessitating interventions and imposed restrictions. As such, the clinical environment of childbirth may have adverse effects on psychological outcomes, including the development of postpartum depression. To test this hypothesis, two trials have been conducted evaluating the effect of doula support (i.e. lab our support provided by an experienced lay woman).

## 3.18.4 Supportive interactions

Diverse supportive interventions, including nursing home visits, home-based lay support, postpartum support groups, and self-help manuals; have been suggested to have a protective effect in the development of postpartum depression Continuity of Care.



Based on policymakers' suggestions that continuity of care may increase women's satisfaction, new models have been proffered, including team midwifery care. Today in the UK midwife managed programs of care are being implemented despite diminutive research demonstrating efficacy.

# 3.18.5 Early postpartum follow up

Traditionally women have been advised to atend 6 week postpartum checkup with their primary health care provider. However some researchers have hypothesized that postpartum care initiated earlier may either prevent or allow for the early identification and management of problems including postpartum depression .Home versus clinic follow up visit in addition to evaluating the timing of postpartum follow up visits on maternal mood, the setting has also been examined.

## **3.18.6 Hormonal interventions**

Despite the fall in circulating progesterone and estrogen in the immediate postpartum period, researchers have failed to consistently demonstrate a link between hormone levels and postpartum depression (Harris Johns et al. 1989, Harris et al. 1996).

## **Estrogen therapy**

# **3.18.6.1 Progesterone therapy**

## 3.18.6.2 Thyroid function

Research suggests that women who are positive for thyroid antibodies in pregnancy are at-risk of developing postpartum depression (Harris Fung et al. 1989:243-249, Pop et al. 1993: 26-30).

# **3.18.7 Educational strategies**

Frequent contact with health professionals during pregnancy presents an ideal situation for the provision of information, with proponents of antenatal education claiming that such knowledge is a crucial factor in the maintenance of women's health during pregnancy and their preparation for childbirth. To determine the effect of antenatal education on the prevention of postpartum depression, a randomized controlled trial was conducted in Australia (Hayes et al. 2001).

Relaxation with Guided Imagery Relaxation is the state of being free from physiological and psychological tension while imagery includes all thoughts that evoke a sensory component which are not only visual but can also be in the form of auditory motor ,tactile, gustatory, and olfactory (Rees, 1995:255-267).



### 4. Risk factors of postpartum depression

## 4.1 Operational definition for risk factors of PPD

Agropur of no determined factors which affect the pregnant women specific in the third trimester and continue through deli vary then led to mood changes which convert to PPD.

## 4.2 Theoretical definition of risk factors of PPD

On http//www.ncbi.nlm.nil.gor/pmc/articles/pmc, spoke about risk factors of PPD that: Risk factors of PPD are group of factors which may lead to PPD .No specific cause of postpartum depression has been found. The etiology of PPD is not well understood. It is sometimes assumed that postpartum depression is caused by a lack of vitamins, other studies tend to show that more likely causes are the significant changes in a woman's hormones during pregnancy. Other studies have suggested there is no known correlation between hormones and postpartum mood disorders. And hormonal treatment has not helped postpartum depression victims. Further who are not undergoing profound hormonal changes suffer PPD at relatively high rates (e.g. Goodman, 2004: 410-420). Finally all mothers experience these hormonal changes, yet only about 10–15% suffer PPD. This does not mean that hormones do not play a role in PPD. For example in women with a history of PPD a hormone treatment simulating pregnancy and parturition caused these women to suffer mood symptoms, the same treatment did not cause mood symptoms in women with no history of POD ,one interpretation of these results is that there is a subgroup of women who are vulnerable to hormone changes during pregnancy. Another interpretation is that simulating a pregnancy will trigger PPD in women who are vulnerable to PPD for any of the reasons indicated by Beck's meta-analysis.

Profound lifestyle changes brought about by caring for the infant are also frequently claimed to cause PPD but again there is little evidence for this hypothesis. Mothers who have had several previous children without suffering PPD can nonetheless suffer it with their latest child (Nielsen Forman et al. 2000). Plus most women experience profound lifestyle changes with their first pregnancy most do not suffer PPD (Vanita Dharan Jain MD, 2012).



The term 'postpartum depression' refers to a non psychotic depressive episode that begins in the postpartum period (Cox et al. 1993:27-31, O'Hara, 1994: New York: Springer Verlag, Watson et al. 1984:453-462).

In past research, these depressions have been defined in a number of ways O'Hara M W& Zekoski E M (1988), however more recent and rigorous studies have defined postpartum depression based on standardized diagnostic criteria for depression including DSM-IV (American Psychiatric Association, 1994, DC: American Psychiatric Association, ICD-10 World Health Organization, 1993). As previously stated screening for postnatal mood disturbance can be difficult given the number of somatic symptoms typically associated with having a new baby that are also symptoms of major depression (Nonacs et al. 1998: 34-40). Distinguishing between depressive symptoms and the supposed 'normal' sequel of childbirth, such as changes in weight, sleep, and energy is a challenge that further complicates clinical diagnosis (Hostetter & Stowe, 2002, DC: American Psychiatric Publishing Inc). For example although it is difficult to assess sleep disturbance in new mothers, the clinician may ask about the mother's ability to easily rest or sleep when given the opportunity. Many women with postpartum depression often have such high levels of anxiety that they are unable to rest or return to sleep after getting up with the infant at night. Postpartum alterations in body weight are highly variable and it is important to ask about a woman's 'desire for food' and 'whether food tastes good'. The issue of libido should be expanded to include the acceptance of affection, further confounding the determination of postpartum depression is the presence of possible physical causes (including anemia, diabetes, and thyroid dysfunction) that could potentially contribute to depressive symptoms (Pedersen et al. 1993:201-211).

These factors are known to correlate with PPD "Correlation" in this case means that, for example high levels of prenatal depression are associated with high levels of postnatal depression, and low levels of prenatal depression are associated with low levels of postnatal depression. But this does not mean the prenatal depression causes postnatal depression they might both be caused by some third factor. In contrast some factors such as lack of social support almost certainly cause postpartum depression. The causal role of lack of social support in PPD is strongly suggested by several studies including O'Hara 1985, Field et al. 1985, and DC: Institute of Medicine: National Academy Press, and Gotlib et al. 1991:269-27). Anthro pologists Kruckman and Stern



tested the idea cross culturally and their pioneering study determined six ways in which postpartum rituals, including the use of the postpartum ritual, la cuarentena, in Chicago Latina mothers, to protect or cushion the expression of mood disorders.

In addition to Beck's Met analysis cited above, other academic studies have shown a correlation between a mother's race, social class and/or sexual orientation and postpartum depression. In 2006 Segre et al. conducted a study on the extent to which race, ethnicity is a risk factor for PPD. Studying 26,877 postpartum women they found that 15.7% were depressed. Of the women who suffered from PPD, African American women suffered at a rate of 25.2%, American Indian Native Alaskan women at 22.9%, Caucasian women at 15.5%, Hispanic women at 15.3% and 11.5% for those reporting Asian Pacific Islander. Even when "important social factors such as age, income, education, marital status, and baby's health were controlled, African American women still emerged with significantly increased risk for PPD".(Hickey et. al., 1997,Seguin et al. 1995: 583–589, Areias et al. 1996: 30-3).

Research has identified associations between low-income status and other risk factors for PPD, such as young maternal age, single parent status, and low levels of social support (Rich Edwards et al. 2006: 221–227). Furthermore epidemiological research has found that prevalence rates for PPD are higher among low income women than middle- or upper income women (O'Hara & Swain, 1996: 37-54, Rich Edwards et al. 2006: 221–227).

The prevailing biomedical and popular explanations of PPD do not explain why low income mothers are at higher risk for the disorder or how the social environment factors into the etiology of PPD, in addition to being at higher risk for PPD, research has found that low-income postpartum mothers are less likely than their middleclass counterparts to seek or receive mental health treatment (O'Hara & Swain, 1996, Song, Sands & Wong, 2004: 1–23).

Consequently the well documented negative consequences of untreated PPD such as cognitive, emotional, and social developmental risks for children (Beck, 1995: 298–304, Murray, FioriCowley, Hooper, & Cooper, 1996: 2512-2526), child abuse and neglect (Buist, 1998: 167-173) and ongoing maternal depression, marital stress, divorce and postpartum physical health problems (Brown & Lumley, 2000: 1194-1201,O'Hara, 1994: New York: SpringerVerlag) disproportionately take their toll on low income



families. Despite knowledge that low income mothers and their families face greater risks of suffering the negative consequences of untreated PPD, research previously conducted in the United States has not provided an adequate understanding of how these mothers subjectively experience, understand or explain their POD symptoms. This significant knowledge gap impedes the formulation of effective prevention and intervention strategies for this population (Abrams & Curran, 2007: 289–296).

Consistent risk factors for postpartum depression include personal psychiatric history, recent stressful life events, and lack of social support. However the available Meta analytic data indicate that demographic variables such as age, relationship status, socioeconomic status, and ethnicity are not strongly associated with risk for postpartum depression. To date no studies have systematically examined the extent to which the samples used in published research on postpartum depression have included sufficiently diverse samples of women to merit this conclusion (Carestudy group, 2008). This situation is noteworthy considering that individual published studies have reported increased prevalence rates and population-specific risk factors for postpartum depression among such subpopulations as adolescent, single, impoverished, and ethnically diverse mothers. It is possible that significant demographic risk factors for postpartum depression are lost when Meta analysis is applied, owing to homogeneity of the research samples (Tschinkel S, Harris M, Lenoury J, Healy D., 2007).

### 4.3 Risk factors of depression after childbirth

Several factors have been associated with an increased risk of depression after childbirth; these include a previous history of depression or postpartum depression, a family history of depression, domestic violence, lack of social support, and certain environmental factors (e.g. lack of food, inadequate income or housing conditions).

Winner and Stowe, 1997, it is important for primary care providers to be especially alert to the possibility of depression among patients who have a previous history or family history of depression, lack social support or have environmental factors related to inadequate finances. Other factors that have been cited as risk factors for depression subsequent to childbirth include violent relationships and traumatic experiences, substance abuse and major stressful life events. The presence of one or more of these factors does not indicate that a woman will experience depression nor does their absence mean that a woman is not at risk for depression; therefore healthcare providers



are strongly encouraged to screen all pregnant women and new mothers for depression. (Swendsen and Mazure, 2000).

Postpartum depression can be affected by a myriad of biological, systemic, familial, cognitive, and social factors that play a role in a person's ability to withstand stressors. They are generally divided into three principle categories: biochemical changes that occur in the body after birth; intra-psychic processes relating to the pregnancy and birth; and psychosocial factors such as social support, familial support, and the relationship with the baby's father (Bloch et al. 2000:924-930), adoption has become an acceptable avenue to establishing a family. One study reported that 1 of every 40 children under 18 years in the United States is adopted (Kreider, 2003). Except for the pregnancy itself, adoptive parents undergo the same difficulties in the transition to parenthood as biological parents. They may also be subject to additional unique and potentially stressful hardships which include coping with the inability to conceive, agency evaluations of parental fitness, the uncertain wait for an eligible child, the adoption experience itself, possible social stigma, and possible medical, developmental or biological problems of the adopted child .Nevertheless unlike for biological mothers, there is a paucity of data on depression and other psychopathologies in adoptive mothers.

### 4.3.1 Maternal age

Mean maternal age was reported in 116 (81.1%) articles. Of these, the mean maternal age fell between 25 and 35 years in 102 (87.9%) articles. The remaining 14 (12.1%) studies reported a mean maternal age of less than 25 years. No studies had a mean maternal age of more than 35 years. When compared by study location, mean maternal age did not differ significantly between those studies conducted in Western countries (27.8 years) and studies conducted in other countries (27.1 years). (Kabir K, Sheeder J, StevensSimon, 2008: 706-708).

## 4.3.2 Ethnicity

Ethnicity was specified for only 15 307 (29.7%) of the total 51 453 research participants. Notably, ethnicity was reported for only 5583 (17.9%) participants in the risk factor studies, compared with 9103 (48.6%) in the prevention studies and 617 (41.4%) in the treatment studies. When we examined the ethnicity data available, we found 11. 553 (75.5%) participants were identified as white. Studies conducted in



Western nations reported a significantly higher proportion of white participants than did studies conducted in other countries. (Pediatr, Adolesc Gynecol, 2008).

## 4.3.3 Relationship status

Relationship status was the most commonly reported variable, with data on this variable provided for over 80% of participants in all 3 study types. Data on relationship status were available from 112 (78.3%) articles and for 45 246 (87.9%) of the total participants. Of these participants, 39 946 (88.3%) were married or cohabitating. When compared by study location, studies conducted in Western nations did not differ significantly from studies conducted elsewhere in their proportion of participants who were not partnered (0.13 compared with 0.17). When we compared relationship status by study type, we observed a statistically significant difference in the total proportion of women who were partnered (F = 4.84, P = 0.01), with a higher proportion of single women in the prevention studies than in either of the other study types (Kabir K, Sheeder J, StevensSimon,2008: 706-708).

## 4.3.4 Marital relationship

Closely linked with findings on social support, studies have reported an increased risk of postpartum depression in women who experienced marital problems during pregnancy. This would be reflected in feelings of isolation and lack of support.

The effects of parenthood on all aspects of the mother's psychosocial functioning should not be underestimated. Robinson and Stewart discuss how in many cases, the family system must be reorganized, and many couples adopt more traditional roles. The mother usually tends to do the greater share of parenting tasks, and the parents must decide how their new roles will affect their previous work patterns and implement the necessary changes. With the added burden of childcare, the relationship between the partners often suffers, and there is less time for socializing. (Valdimarsdóttir U, Hultman CM., Harlow B., Cnatingius S., Sparén P., 2009).

A supportive relationship with the father can help mitigate the stresses of being a new mother. These stresses should be born in mind when evaluating the role of factors in the development of postpartum depression.



#### 4.3.5 Social support

Receiving social support through friends and relatives during stressful times is thought to be a protective factor against developing depression and several earlier studies have evaluated the role of social support in reducing postpartum depression (Hewitt P. L., Flett, G. L., & Harvey M., 2003). Social support is a multi dimensional concept sources of support can be a spouse, relatives, friends or associates. There are also different types of social support e.g., informational support where advice and guidance is given, instrumental support practical help in term.

### 4.3.6 Obstetric factors

including pregnancy-related complications Obstetric factors such as preeclampsia, hyper emesis, premature labor, as well as delivery related complications, such as case are a section, instrumental delivery, premature delivery, and excessive bleeding intra partum have been examined as potential risk factors for postpartum depression. The results from16 large scale studies of 9500 women indicate that pregnancy and delivery related complications have a small but significant effect on the development of postpartum depression. Although there is little evidence supporting an association between delivery by caesarean section and postpartum depression from large studies, it has been reported that women undergoing emergency caesarean sections were more likely to develop postpartum depression. It is unclear if delivery complications or long and painful labor leading to emergency procedures account for the association. Equivocal findings have been reported for associations between unplanned or unwanted pregnancies and breast feeding and postpartum depression.

In summary the evidence suggests that obstetric factors make only a small but significant contribution to the development to postpartum depression, one must every cautious when interpreting the results. Some of the variables measured may not be truly independent but rather are influenced by extraneous variables. (HalmesmakiE., 2001:1144-1159). For example, the decision to perform caesarean sections may differ between physicians and hospitals, and certainly internationally. Similarly rates of breastfeeding or attitudes toward breast feeding may differ within cultures and countries.

### 4.3.7 Hormonal Events in Pregnancy and Postpartum

During pregnancy levels of estrogens (estradiol, estriol, and estrone) and progesterone rise steadily in large part as a result of placental production of these



hormones, with removal of the placenta at delivery estrogen and progesterone levels drop sharply, reaching pre gravid levels by the fifth postpartum day. Levels of beta endorphin, human chorionic gonadotrophin and cortisol also rise across pregnancy reaching a maximum near term and declining at delivery.

High estrogen levels during pregnancy stimulate production of thyroid hormone binding globulin leading to a rise in levels of bound T3 (triiodothyronine) and T4 (thyroxin) and a simultaneous drop in levels of free T3 and T4. In consequence thyroid stimulating hormone (TSH) increases to compensate for the low free thyroid hormones, and free T3 and T4 thus remain within the normal range. With the drop in thyroidinding globulin following delivery levels of total T3 and T4 drop whereas free T3 and T4 remain relatively constant. Prolactin levels rise during pregnancy, peak at delivery and in no lactating women, return to pregravid levels within 3 weeks postpartum, by inducing the release of oxytocin a hormone that stimulates pituitary lactotrophic cells, breastfeeding maintains high prolactin levels. Even in breastfeeding women prolactin levels eventually return to pregravid levels (MedicalNursing ArticlesVictoriaH. et al. 2004: volume39, number2, march-april1998).

## 4.3.8 Gonadal Steroids

Estradiol and Estriol are biologically active forms of estrogen that are produced by the placenta and rise during pregnancy by 100fold and 1000fold respectively. Because synthesis of Estriol results from metabolic activity of the fetal liver, it is produced in high concentrations during pregnancy, animal studies have demonstrated that Estradiol enhances neurotransmitter function through increased synthesis and reduced breakdown of serotonin, the abrupt decrease in Estradiol levels following delivery may thus theoretically contribute to postpartum depression.

### 4.3.9Thyroid hormones

The incidence of abnormal thyroid function rises slightly after childbirth in the 6 months following delivery, women experience thyroid dysfunction at a rate of up to 7% compared with a rate of 3% to 4% in the general population. Although thyroid dysfunction has not been identified in most women with postpartum depression, it may play a role for a subgroup of women. In a prospective study of 303 pregnant thyroid women, 21 women (7%) developed postpartum thyroid disorders. Depression was identified in 38% of these 21 mothers and resolved with treatment of the thyroid



dysfunction. Thus in women with symptoms suggesting hypothyroidism (weight gain, cold intolerance and lethargy), measurement of thyroid function is an important part of the evaluation of postpartum depression. Some postpartum women without overt thyroid dysfunction may nevertheless have thyroid pathology, thyroid antibodies have been found in up to 11.6% of postpartum women. The immunosuppressant effect of high cortisol levels during pregnancy may be followed by a "rebound" immune phenomenon after delivery, producing a high incidence of postpartum thyroid antibodies. A double blind study of 145 antibody positive women and 229 anti body negative women found a relationship between depression and postpartum antibody status.27women At 6 weeks following delivery, 43% of the antibody positive women had mild to moderate depressive symptoms, compared with 28% of the antibody negative women. Depression was defined by a score of 17 or higher on the Hamilton Depression scale, a score of 13 or more on the Edinburgh postnatal depression scale, and a score of 11 or more on a hospital anxiety and depression scale (Medical Nursing Articles, 2004).

#### 4.3.10 Pituitary hormones

Prolactin rises from pre gravid levels of 5–25 ng/ ml to140 ng/ml in late pregnancy and drops in the 3 weeks after delivery in non lactating women. In breastfeeding mothers, prolactin levels remain high for several months but eventually decline to pre pregnancy levels. Prolactin's role in psychopathology has been suggested by the association of anxiety, depression, and hostility in non pregnant women with pathologic hyper prolactinemia compared with control subjects, one study of 147 women at 6–8 weeks postpartum found lower prolactin levels in the depressed breastfeeding women than in the no depressed breastfeeding women, all levels remained within normal physiological ranges. The study did not control for the relationship between breastfeeding and sampling time as prolactin levels increase following breastfeeding and nipple stimulation this is a significant confound.

### 4.3.11 Cortisol

Cortisol levels peak in late pregnancy as a result of placental production of corticotrophin releasing hormone and fall abruptly at delivery. A number of studies have failed to find an association between plasma cortisolor urinary free cortisol and postpartum depression. One study that did note a positive association between morning serum cortisol levels at 6 weeks postpartum and degree of dysphoria in 26 women was



confounded by a lack of control for stressful life events and for timing of breastfeeding, factors that may produce an elevation or a reduction respectively of cortisol levels. A prospective study of 182 women followed from the second trimester of pregnancy until Postpartum Week controlled for lactation and for demographic, psychiatric, social, life stress, and other variables. No association was observed between total cortisol, urinary free cortisol or dexamethasone suppression test results and postpartum mood. Thus current data do not support an etiologic role for cortisol in the onset of postpartum depression.

# 4.4 Women at risk for postpartum depression

Postpartum depression is more likely if you have had any of the following:

- Previous postpartum depression.
- Depression not related to pregnancy.
- Severe premenstrual syndrome (PMS).
- A difficult or very stressful marriage or relationship.
- Few family members or friends to talk to or depend on.
- Stressful life events during pregnancy or after childbirth.
- Unplanned/unwanted pregnancy Postpartum Depression Causes and Risk Factors.
- Levels of the hormones estrogen, progesterone, and cortisol fall dramatically within 48 hours after delivery.
- Women who go on to develop postpartum depression may be more sensitive to these hormonal changes.
- Mental illness before pregnancy.
- Mental illness, including postpartum depression, in the family.
- Postpartum mental disorder after an earlier pregnancy.
- Conflict in the marriage, loss of employment, or poor social support from friends and family.
- Pregnancy loss such as miscarriage or stillbirth.
- Physical changes after delivery.

# 4.5 Common emotional changes after delivery

- Feelings of loss of an old identity, feeling trapped at home.
- Feeling overwhelmed with responsibilities of motherhood.



- Feeling stress from changes in routine.
- Feeling fatigue because of broken sleep paterns.
- Feeling less atractive physically and sexually.
- A mother's age and the number of children she has had do not relate to her likelihood of getting postpartum depression. Men whose partners suffer from postpartum depression have been found to be at higher risk for developing a similar condition or other mental health problems at that time.

## 4.6 Other risk factors

Article on http://www.emedicinehealth.com/post partum depression/page2-em htm 21/7/2012 at1, 55pm explained that: Postpartum depression (PPD) is a depressive episode, starting within 6 months after childbirth, that meets the DSM-IV criteria for major depressive episode, without psychotic features (APA, 1994, DC: American Psychiatric Press),up to 20% of new mothers experience PPD that goes beyond the realm of "maternity blues" (O'Hara et. al., 1990, New York: Springer-Verlag., Paykel et al., 1980: 339–346). PPD occurs at a time when heavy demands are placed on a woman's resources and when infant learning and development are occurring. Children whose mothers experience PPD can have increased behavioral, cognitive, and emotional difficulties (Cooper and Murray, 1998: 1884-1886, Murray et al. 1996: 2512-2526,Cogill et al. 1986: 1165-1167). Undetected PPD affects the mother, her infant and her family and affects society through illness, social dysfunction, death and the cost of medical treatment and services, PPD is a preventable illness (Mrazek and Haggarty, 1994, DC: National Academy Press).

Four factors are consistently found to relate to PPD: lack of social, especially spousal, support (Collins et. al., 1993, Hopkins et al. 1984, : 251-254, Gjerdingen and Chaloner, 1994), prior history of depression and other emotional problems (Wilson et al. 1996, Gotlib et al. 1991: 122–132, Hopkins et. al. 1984: 237-241, Kumar and Robson, 1984: 35–47), obstetric and infant problems (Campbell and Cohn, 1991: 29-47, Kumar and Robson, 1984: 35–47, Hopkins et al. 1987), and stressful life events (Hickey et al. 1997, Seguin et al. 1995, Areias et al. 1996: 30-33), never the less none of these psychosocial factors can be used to predict which women will develop PPD.


#### 4.7 Post partum depression risk factors for non use of postnatal care

Similar to other studies, our vicariate analysis revealed that women, who did not use postnatal care, married at a younger age, had lower economic status and had a spontaneous vaginal delivery without problems.

#### 4.8 Detection of Postpartum depression

Postpartum depression is a serious mood disorder affecting many women from diverse cultures. Despite the longstanding recognition of this condition it represents a largely undetected form of maternal morbidity the reasons for this are twofold. First women are often reluctant to seek professional help (Small, Brown, Lumley, & Astbury, 1994:12, 19-22). Even though mothers have various interactions with health professionals in the postpartum period they are frequently unwilling to disclose emotional problems particularly depression (Brown & Lumley, 2000: 1194-1201). One explanation for this hesitancy may be the popular myth that equates motherhood with happiness and the idealization of the good mother where feelings of joy are emphasized while unhappiness is minimized. In addition many women have difficulty understanding the problems they are experiencing; often assuming these struggles are a normal part of motherhood, for these women the onsets of symptoms may be attributed to causes other than depression, such as fatigue or relationship difficulties (Small et al. 1994: 19-22) Whitton, Appleby, & Warner, 1996:221). Conversely some women recognize the symptoms as depression but fear the potential help seeking consequences such as being labeled mentally ill or an unfit mother. Even after women have made the decision to seek professional help they frequently report feelings of embarrassment, disappointment and frustration as health professionals may minimize their symptoms or portray their experiences as normal (Beck, 1993:98-104). It should also be recognized that not knowing where to obtain assistance is another important help seeking barrier (Mcintosh, 1993). Finally family members may discourage women from seeking help as in some cultures it is unacceptable to admit to depressive symptoms or discuss such difficulties external to the family context (Mathey, Barnett, & Elliott, 1997: 360-369),( Okano, Nagata, Hasegawa, Nomura, & Kumar, 1998: 233-240), health professionals may also contribute to the under diagnosing of postpartum depression.

#### 4.9 Assessment of postpartum depression

Many health professionals have limited training in the assessment or management of postpartum depression they often do not recognize the presenting



symptoms as indicating depression or they may feel uncertain about how to effectively assist and are therefore reluctant to raise such issues, research suggests that screening may significantly assist health professionals in their ability to detect postpartum depression. In a US study391 mothers were assigned to either a postpartum screening group where the Edinburgh Postnatal Depression Scale (EPDS) was administered or a control group which consisted of spontaneous detection via routine clinical examination (Evins, Theofrastous, & Galvin, 2000:241-246).

These preceding results suggest that the incorporation of a screening tool into clinical practice can improve health professional responsiveness and may be an effective adjunct to postpartum assessments.



# LITERATURE REVEW



#### **5 LITERATURE REVEW**

#### 5.1 Previous studies:

Study by Bloch, Schmidt, Danaceau et al.: (2000), this study aimed to test the hypothesis that a subgroup of women may have a differential sensitivity to reproductive hormones, and that in this group normal endocrine events related to childbirth may trigger an affective episode. The method used In order to test the hypothesis, they used a scaled down model to simulate some of the hormonal events of pregnancy and childbirth. They tested two groups of women, 8 of whom had a history of postnatal depression and 8 women without a history of postnatal depression. Both groups of women were given a releasing hormone agonist to simulate the supra physiological steroid levels of pregnancy over an eight week period and then these were withdrawn to simulate childbirth. The results: Five of the eight women with a history of postpartum depression developed significant affective symptoms during the withdrawal period; none of the 8 women who did not have a history of postnatal depression experienced any mood symptoms during the withdrawal period. The authors concluded that these data provided support for the involvement of estrogen and progesterone in the development of postnatal depression in a subgroup of women notes mood during pregnancy.

O'Hara and Swain (1996) included 13 studies comprising over 1000 subjects for their analyses, whilst Beck included data from 21 studies which included over 2300 subjects. The results found that depressed mood during pregnancy were a moderate strong predictor of postpartum depression. These results have been replicated in a number of subsequent studies (Johnston et al. 2001, Josefsson et al. 2002, Netter et al. 1995). O'Hara further examined the relationship and found the association between depressions during pregnancy and postnatal when accessed via self report was stronger (? = 0.84; 95% CI 0.75 / 0.93) than the relationship when accessed via an interview (? = 0.39; 95% CI 0.22 / 0.56

Social Factors - Life Events: In the recent meta-analyses, O'Hara and Swain took values from 15 studies, comprising data on over 1000 subjects that had prospectively recorded data on life events. They found a strong-moderate relationship between experiencing a life event and developing postpartum depression (? = 0.60, 95% CI: 0.54 / 0.67). However there was heterogeneity between studies which related to



where the study was conducted: studies undertaken in Britain and North America showed strong associations between postpartum depression and recent life events, while Japanese studies showed a no significant association. It is not clear why this should occur. The more recent study conducted by Lee et al. (2000) in Hong Kong did not find an association between life events and postpartum depression.

**Study of Terri L. Liberto (2006),** this study aimed to recognize -Screening for depression and help seeking in postpartum, women during well-baby pediatric visits. This study aimed to: Identify the main Risk factors for postpartum depression.

Purpose: The purposes of this integrated review are to examine the literature on screening for depression and help-seeking behaviors by postpartum women during pediatric well-baby visits; to identify gaps in the literature relating to depression and help-seeking behaviors; and to discuss implications for practice and future research .: An extensive search of primary source documents was conducted in Academic Search Premier, Cinahl, Medline, Mental Measurements Yearbook, PsycInfo, PsycArticles, and Women's Studies International using the key words postpartum, postpartum depression (PPD), help seeking, and pediatric setting or pediatrician. Thirty-five articles relevant to help seeking, PPD, and screening in the pediatric setting were included in this review. Research studies included both quantitative and qualitative articles. PPD affects 10% to 15% of all women after birth. Postpartum women generally do not seek help for depression. Untreated PPD has significant adverse affects on parenting, maternal bonding, and the infant's emotional and behavioral development. Interaction with the woman's obstetric provider ends shortly after the baby's birth. However, interactions with the pediatric office are initiated and continue throughout the infant's first two years of life: Early recognition of PPD and appropriate treatment are imperative for positive maternal-infant outcomes. A majority of women do not seek help for depression from any source. Because mothers have routine interactions with pediatric office staff during the first few years after giving birth, pediatric nurse practitioners and pediatricians have the perfect opportunity to screen and educate women regarding symptoms, treatment, and available resources for PPD

**Study of Glasser S, etal. (2005),** this study aimed to: Assess the prevalence and incidence of postpartum depression (PPD) and to identify risk factors in a community cohort of Israeli-born, as well as new and veteran immigrant women. Sample :A random



sample of 288 registrants at a community clinic was assessed for depressive symptoms at 26 weeks' pregnancy using the Beck Depression Inventory (BDI) and at 6 weeks postpartum using the Edinburgh Postnatal Depression Scale (EPDS). Information regarding risk factors was gathered through interviews and medical record abstracting. The prevalence of PPD was 22.6%. Two-thirds of the women had scored 'depressed' during pregnancy, and one-third (6.9%) were new incident cases methods: In early 2006, a cross-sectional survey was conducted at three clinics run by the Ministry of Health providing Mother and Child Health Care in West Bank, Palestine. A total of 264 postpartum women attending the clinics were interviewed face-to-face, using a structure. Findings: The delivered women only about one-third of women in Palestine (West Bank and Gaza) obtain postpartum care. Therefore, the goal of this study was to assess factors associated with lack of postnatal care, women's reasons for not obtaining postnatal care, and their attitudes towards its importance.

Study of Lisa S., Segre et al. (2010), this study aimed to recognize, the prevalence of postpartum depression the relative significance of three social status indices, the purpose of the present study to examine the prevalence of postpartum depression as a function of three indices of social status: income, education and occupational prestige. To detect the prevalence of clinically significant postpartum depression in women of varying social status, method a sample of 4,332 postpartum women completed a demographic interview and the Inventory to Diagnose Depression, a self-report scale developed to identify a major depressive episode in accordance with DSM diagnostic criteria. Logistic regression was used to assess the relative significance of the three social status variables as risk factors for postpartum depression controlling for the effects of correlated demographic variables. Results in the logistic regression, income, occupational prestige, marital status, and number of children were significant predictors of postpartum depression controlling for the effects of other related demographic characteristics. The Wald Chi Square value for each of these significant predictors indicates that income was the strongest predictor. Conclusions the prevalence of postpartum depression was significantly higher in financially poor relative to financially affluent women. Maternal depression screening programs targeting women who are financially poor are well placed.



**Study in the Journal of Family Practice (2001),** this study aimed to recognize - Routine screening for postpartum depression:

Problem: Postpartum depression (PPD) is a common and often overlooked condition. Validated screening tools for PPD exist but are not commonly used. We present the 1-year outcome of a project to implement universal PPD screening at the 6week postpartum visit.

The method used Universal screening with the Edinburgh Postnatal Depression Scale (EPDS) was implemented in all community postnatal care sites. One-year outcome assessments (diagnosis and treatment of PPD) were completed for a sample of the women screened using medical record review of all care they received during the first year postpartum, the results: Sixty-eight (20%) of the 342 women whose medical records were reviewed had been given a documented diagnosis of postpartum depression, resulting in an estimated population rate of 10.7%. Depression was diagnosed in 35% of the women with elevated EPDS scores (> or =10) compared with 5% of the women with low EPDS scores (<10) in the first year postpartum. Treatment was provided for all women diagnosed with depression, including drug therapy for 49% and counseling for 78%. Four women were hospitalized for depression. Some degree of suicidal ideation was noted on the EPDS by 48 women but acknowledged in the chart of only 10 women, including 1 with an immediate hospitalization. The rate of diagnosis of postpartum depression in this community increased from 3.7% before the routine use of EPDS screening to 10.7% following screening. A high EPDS score was predictive of a diagnosis of postpartum depression, and the implementation of routine EPDS screening at 6 weeks postpartum was associated with an increase in the rate of diagnosed postpartum depression in this community

**Study of Terri L. Liberto (2012),** this study aimed to recognize -Screening for depression and help seeking in postpartum women during well baby pediatric Visits.

Purpose: The purposes of this integrated review are to examine the literature on screening for depression and help-seeking behaviors by postpartum women during pediatric well-baby visits; to identify gaps in the literature relating to depression and help-seeking behaviors; and to discuss implications for practice and future research.

Method: An extensive search of primary source documents was conducted in Academic Search Premier, Cinahl, Medline, Mental Measurements Yearbook, Psyc Info, Psyc Articles, and Women's Studies International using the key words postpartum,



postpartum depression (PPD), help seeking, and pediatric setting or pediatrician. Thirtyfive articles relevant to help seeking, PPD, and screening in the pediatric setting were included in this review. Research studies included both quantitative and qualitative articles results: PPD affects 10% to 15% of all women after birth. Postpartum women generally do not seek help for depression. Untreated PPD has significant adverse affects on parenting, maternal bonding, and the infant's emotional and behavioral development. Interaction with the woman's obstetric provider ends shortly after the baby's birth. However, interactions with the pediatric office are initiated and continue throughout the infant's first two years of life discussion: Early recognition of PPD and appropriate treatment are imperative for positive maternal-infant outcomes. A majority of women do not seek help for depression from any source. Because mothers have routine interactions with pediatric office staff during the first few years after giving birth, pediatric nurse practitioners and pediatricians have the perfect opportunity to screen and educate women regarding symptoms, treatment, and available resources for PPD.

**Study of Archives of women's mental health, 2011, volume 14, number 3, Pages 187-193,** the purpose of this study was to estimate the prevalence of postpartum depression (PPD) and its relationship with life events (LE) and patterns for copingMethods: We performed a cross-sectional study of 113 women, on the 10th day of puerperium, at the Obstetric Clinic of the São Paulo University Medical School. The study was based on the following: Pitt (1967) and Stein (1980) Scales, Beck Depression Inventory (1961), Holmes and Rahe Schedule of Recent Events (1967), Folkman and Lazarus Ways of Coping (1985) and questionnaire of social-demographic and obstetric data. Logistic regression was performed to calculate prevalence of PPD and its association with several risk factors results: The significance level was defined at 5%. The prevalence of PPD was 15.9% (IC 9.7% to 24.0%). According to the multivariate analyses, the variables of coping with distancing, number of children and ethnic origin were significant. There were no association between PPD and LE.

Conclusion: The depressed puerperal women have a low educational level, greater number of children and resort to inadequate coping strategies, such as distancing. This pattern of coping might be an etiological factor of the PPD as well as a reaction to their difficult life environment.



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**Study of Derek Hales, (2010),** this study aimed to produce evidence for factor validity and longitudinal invariance of scales used to examine the theory of planned behavior applied to physical activity. The method *was* Self-report questionnaires were administered at 3month- (n=267) and 12-months (n=333) postpartum the results was a single-factor model fit data from the normative beliefs, perceived behavioral control and behavioral beliefs scales. Attitude and control beliefs were found to be multidimensional. Longitudinal invariance of all scales was supported. The research result each scale had strong validity evidence. Future research using these measures will help identify areas for intervention and reveal how changes in these constructs influence physical activity.

Study of Howell EA, et al. (2009), this study aimed to investigate factors that may mitigate the risk. The method was Self-report questionnaires were administered at 2month using a two item depression screener, Howell and colleagues surveyed 563 postpartum women at two weeks and six months postpartum, and categorized women as having never experienced depressive symptoms in the postpartum, having depressive symptoms at both assessments, having depressive symptoms at only two weeks, or having depressive symptoms only at six months postpartum the results was approximately 10-15% of women will experience mood symptoms that meet criteria for a Major Depressive Episode during the postpartum period. However, 50% of women may experience some level of depressive symptoms during the postpartum period. In a recent paper published in the Archives of Women's Mental Health, Howell and colleagues attempt to examine modifiable risk factors associated with depressive symptoms in the postpartum period. Howell and colleagues note that much of the existing research predicting which women will experience postpartum depression uses a disease model, and as a consequence, there has been a failure to systematically. They collected information on "fixed" variables, such as demographic information (age, race, marital status, past history of depression, etc.), physical symptoms associated with the postpartum period (vaginal bleeding, breast pain, hemorrhoids, etc.), functional limitations, the degree to which the participant was involved with infant care tasks and characteristics of the infant. Potential buffers for depression were also assessed, including how much social support women reported and women's self efficacy or perceived confidence around caring for their infant White race, higher education level, being married and an absence of history of depression were the variables most



associated with screening negative for depressive symptoms at either assessment. Women who screened positive for depressive symptoms at both time points were more likely to belong to a minority group to have a history of depression and to report more physical symptoms as well as lower levels of buffering factors including social support. Women who screened positive for depressive symptoms at six months postpartum were similar to women who screened positive at other time points, but also reported a reduced amount of social support over time when compared to the two week assessment. Women who reported depressive symptoms at two weeks postpartum and not at six months postpartum reported an increase in self efficacy or their perceived ability to care for their infant. The authors report that while some factors associated with depressive symptoms in the postpartum period are fixed, such as race and past history of depression, some factors are potentially modifiable, such as level of social support and perceived self-efficacy around caring for an infant. The authors conclude that while more research is required, it is possible that intervening on these modifiable factors before the postpartum period could lessen the severity of depressive symptoms or prevent their occurrence altogether, particularly among women at higher risk.

**Study of Laura S.Abrams (2009)**, this study aimed to recognize and identify the main factors that may affect low income mothers. The method Presentation was Low-income mothers in the U.S. are more likely to experience postpartum depression (PPD) and less likely to seek treatment than their middle-class counterparts. Despite this knowledge, prior research has not provided an in-depth understanding of PPD symptoms as they are experienced by low-income mothers. Through in-depth interviews, this study investigated low-income mothers' (*n*=19) experiences and explanatory frameworks for their PPD symptoms. Grounded theory analysis uncovered five main categories that linked the participants' PPD symptoms to their lived experiences of mothering in poverty, including: (1) ambivalence, (2) care giving overload, (3) juggling, (4) mothering alone, and (5) real-life worry The results were The analysis further located the core experience of PPD for low-income mothers as "feeling overwhelmed" due to mothering in materially and socially stressful conditions. These findings challenge the prevailing biomedical discourse surrounding PPD and situate mothers' symptoms in the context of the material hardships

Study of Robertson et al. (2009), this study aimed to recognize and identify the main Antenatal risk factors for postpartum depression. Introduction Postpartum no psychotic



depression is the most common complication of child bearing, affecting approximately 10-15% of women and, as such, represents a considerable health problem affecting women and their families. The method Presentation .This systematic review provides a synthesis of the recent literature pertaining to antenatal risk factors associated with developing this condition. Databases relating to the medical, psychological, and social science literature were searched using specific inclusion criteria and search terms, in order to identify Y studies examining antenatal risk factors for postpartum depression. Studies were identified and critically appraised in order to synthesize the current findings the results: The search resulted in the identification of two major meta-analyses conducted on over 14,000 subjects, as well as newer subsequent large-scale clinical studies. The results of these studies were then summarized in terms of effect sizes as defined by Cohen. The findings from the meta-analyses of over 14,000 subjects, and subsequent studies of nearly 10,000 additional subjects found that the following factors were the strongest predictors of postpartum depression: depression during pregnancy, anxiety during pregnancy, experiencing stressful life events during pregnancy or the early puerperium, low levels of social support, and previous history of depression. Critical appraisal of the literature revealed a number of methodological and knowledge gaps that need to be addressed in future research. These include examining specific risk factors in women of lower socioeconomic status, risk factors pertaining to teenage mothers, and the use of appropriate instruments assessing postpartum depression for use within different cultural groups.

**Med** (2008), this study aimed to: Identify the main Risk factors for postpartum depression. Introduction: To search for a possible correlation between incidences of postpartum depression (PPD) and any of the following factors recorded in patient charts at the routine, 4-week postnatal visit: age, breast-feeding status, smoker/nonsmoker, marital status, preexisting depression and type of delivery. Global measures: Studies which assessed marital relationship using more global measures such as Likert scales or through open questions were assessed in both Meta analyses. Beck included 14 studies comprising over 1500 subjects, while O'Hara and Swain included 8 studies of over 950 subjects. Beck found a moderate association between poor marital relationship and postpartum depression, whilst O'Hara and Swain reported a small negative relationship. It was interesting that differing methods of assessment produced different effect sizes. Marital relationship accessed via interviews was not as predictive as when measured via



self -report. The reason for this is unclear, but may relate to reluctance to discuss the nature of the relationship with an interviewer, but through the anonymity of a questionnaire it is easier. It could also reflect increased sensitivity within questionnaire measures .DYAS. O'Hara and Swain (1996) examined the association between mother's prepartum relationships with their spouse, focusing on studies which used the Dyadic Adjustment Scale (DYAS). The DYAS is a self-report measure which has proven psychometric properties, and is a standardized measure of the quality of the marital relationship. The method Presentation Data were obtained from 588 obstetric charts for women who gave birth between June 1, 2003, and June 1, 2004, at 3 university clinics in Tulsa, Oklahoma. Results prior history of depression and smoking cigarettes were significant risk factors for an Edinburgh Postnatal Depression Scale score of 13 or higher, indicating probable PPD. Our data and previous findings warrant continued investigation in a larger study to clearly delineate these and other possible risk factors for PPD and to facilitate prophylactic patient education and intervention strategies

**Study of Victoria Hendricks M Detal. (2007),** this study aimed to identify the main Risk factors for postpartum depression.

Introduction usual dose for estrogen-deficiency symptoms, and thus required heparin (5,000 units bid) to prevent thrombiembolic phenomena. Over a 12-month follow-up period, none of these women experienced a recurrence of postpartum depression, despite the expected risk of relapse of 35% to 60%. The small sample size (4 cases of postpartum depression) was a major limitation of the study. The method used In the second, a double-blind place controlled study of 61 women with major depression that developed within 3 months of delivery, 15 80% of the patients receiving an estrogen patch had Edinburgh Postnatal Depression Scale scores under the threshold for major depression after 3 months of treatment, compared with 31% of the placebotreated group. However, nearly half of the estrogen-treated patients were also on antidepressant medications, confounding the study results. The sharp decline in progesterone levels following childbirth has also been implicated in postpartum mood changes, but the data are conflicting. A study of 27 women followed every 3days for the first 6 weeks after delivery found a weak association between postpartum depression and the magnitude of change of progesterone.12 Further studies, however, have failed to confirm a relationship between postpartum depression and blood levels of either total1orfree progesterone Salivary levels of progesterone have been examined on the



premise that they reflect the free, biologically active, fraction of plasma progesterone concentrations. Results: A study of 147 mother sat 6 to 8 weeks postpartum found that the depressed breast-feeding women had lower levels of salivary progesterone than the non depressed breast-feeding women.13 Levels of salivary progesterone were higher, on the other hand, in depressed postpartum women who were bottle feeding. However, nursing may have influenced progesterone levels by suppressing menstrual cycling, confounding the results of the study. A prospective study of 120 women found no association between the levels or the magnitude of change of salivary progesterone and depression at Day 35 postpartum.19 one report describes prophylactic efficacy of progesterone given

Study of Wendy A. Mason, Michael J. Rice (2005), this study aimed to recognize -The lived experience of postpartum depression in a psychiatric population journal article

Problem: Studies have examined the quantitative causal factors of postpartum depression. However, the lived experience of postpartum depression has not been investigated. Method using a psycho phenomenological design, the investigators examined reports from seven clients with a psychiatric diagnosis of postpartum depression and the role life experiences played in their labor, delivery, and postpartum period's results: Phenomenological analysis indicated that the psychological and physiological effects of abuse interact to create a cognitive frame of reference similar to the experience of abuse. Conclusion: The normal developmental event of childbearing contributes to the recall of abuse and sets the stage for postpartum depression. Search terms: Abuse, postpartum depression, cognitive frame, phenomenological Because childbirth is supposed to be joyful, a woman felt confused, embarrassed, and guilty if she did not conform to the happy maternal stereotype, and so she kept her gloomy feelings to herself" (Unterman, Posner, & Williams, 1990, p. 132). Childbearing is a developmental milestone in a woman's life. "Socio culturally, a fantasy exists that women will give birth to perfect infants, bond immediately to them emotionally, and demonstrate perfection in regard to the maternal role" (Wood, Thomas, Droppleman, & Meighan, 1997, 309). During the postpartum period, Western sociocultural norms expect new mothers to adjust to motherhood through a series of developmental steps, such as interdependence to



independence (Unterman et al., 1990). However, not all mothers are able to manage these developmental steps on their own. The issue most often associated with the diagnosis of postpartum depression (PPD) is the time frame for the diagnosis. There are major discrepancies between the maternity and psychiatric literature making a 2to 12-month diagnosis difficult (Rice, Records, & Williams, 2001). Problem Women experiencing PPD wrestle with an inability to feel joy and a lack of motivation to celebrate their newborn (Neter, Collins, Lobel, & Dunkel-Schetter, 1995). Inadequate energy levels, overwhelming feelings when facing routine tasks and factors associated with postpartum depression negatively impact a new mother's ability to enjoy her infant. Family dynamics and the mother's self-concept may suffer, increasing the stress on family members and exacerbating the depression (Beck, 1993). Although women and their families suffer extreme hardship because of PPD, little data exist to explain the impact of life experiences on PPD. Varied life experiences, such as abuse, may alter a woman's subjective perception of the normal developmental processes of labor, delivery, and postpartum recovery.

**Study of Wisner et al. (2002)**, this study aimed to: assess marital relationship Purpose: The purpose of this integrated study is to assess marital relationship using more global measures such as Likert scales or through open questions were assessed in both Meta analyses. Beck included 14 studies comprising over 1500 subjects, while O'Hara and Swain included 8 studies of over 950 subjects. Beck found a moderate association between poor marital relationship and postpartum depression, whilst O'Hara and Swain reported a small negative relationship. The results from 6 studies, on over 1100 subjects which used the DYAS indicated a small but significant negative relationship between marital satisfaction on the DYAS and incidence of PPD (? = -0.13; 95% CI – 0.20 / - 0.06) Summary Marital adjustment assessed during pregnancy with a standard self report measure (DYAS) is much more predictive of postpartum depression than by interview. Marital adjustment assessed with more global scales showed the opposite patern. Biological Factors

Although the focus of the meta-analyses focused on on-biological risk factors it is necessary to provide an overview of biological theories of postpartum depression.

The rapid decline in the levels of reproductive hormones that occur after delivery has been proposed as a possible etiology of postpartum affective disorders



(Wisner et al., 2002). Following childbirth, progesterone and estrogen levels fall rapidly, returning to prepregnancy levels within 3 days.

Mood during Pregnancy O'Hara and Swain (1996) included 13 studies comprising over 1000 subjects for their analyses, whilst Beck included data from 21 studies which included over 2300 subjects. The results found that depressed mood during pregnancy were a moderate strong predictor of postpartum depression. These results have been replicated in a number of subsequent studies (Johnstone et al. 2001, Josefsson et al., 2002, Neter et al. 1995).

Social Factors In the recent meta-analyses, O'Hara and Swain took values from 15 studies, comprising data on over 1000 subjects that had prospectively recorded data on life events. They found a strong-moderate relationship between experiencing a life event and developing postpartum depression .However, there was heterogeneity between studies which related to where the study was conducted.

Study of Segre et al. (2006), this study aimed to recognize Other risk factors of Postpartum depression, the method: In addition to Beck's meta-analysis cited above, other academic studies have shown a correlation between a mother's race, social class and/or sexual orientation and postpartum depression. In 2006 Segre et al., conducted a study "on the extent to which race/ethnicity is a risk factor" for PPD. Studying 26,877 postpartum women they found that 15.7% were depressed. Of the women who suffered from PPD, African American women suffered at a rate of 25.2%, American Indian/Native Alaskan women at 22.9%, Caucasian women at 15.5%, Hispanic women at 15.3%, and 11.5% for those reporting Asian/Pacific Islander. Results: Segre et al., found a correlation between a mother's social class and PPD. Not surprisingly, women with fewer resources indicate a higher level of postpartum depression and stress than those with more financial resources. Rates of PPD decreased as income increased as follows: Women with fewer resources are also more likely to have an unintended or unwanted pregnancy; further increasing risk of PPD. Beck (2001) concurs with this, stating that these women are at risk for PPD because they may experience stressors such as financial difficulties. Single mothers of low income may have fewer resources that they have access to while transitioning into motherhood



**Study ofLikewise (2006),** this study aimed to: Recognize families of origin the method: Likewise, a study conducted by Howell et al. in 2006 confirms Segre's findings that women who are not Caucasian and in lower socioeconomic categories have more symptoms of PPD In a 2007 study conducted by Ross et al., lesbian and bisexual mothers were tested for PPD and then compared with a heterosexual sample. Ross et al. found that "lesbian and bisexual biological mothers had significantly higher Edinburgh Postnatal Depression Scale (EPDS) scores than the sample of heterosexual women. The Ross study suggests that PPD may be more common among lesbian and bisexual mothers. Results: From a study conducted in 2005 by Ross, the higher rates of PPD in lesbian/bisexual mothers than heterosexual mothers may be due to less "social support, particularly from their families of origin.

# **Study of Nova science publishers (2006), Inc.** this study aimed to recognize postpartum depression disorders

Method: Postpartum depression (PPD) is a major depressive disorder with postpartum onset and is one of the most common complications of childbearing, affecting 13.00% of postpartum women. PPD has a great impact on the family and economy, and is considered as one of the major public health problems. Objective: To identify the risk factors for PPD development and measure the combined effect of maternal age at the last childbirth, mode of the last delivery, and breastfeeding (BF) status on the risk of PPD among reproductive age (18-45) women living in Yerevan .Methods: The study utilized a case-control study design. Cases were reproductive age (18-45) women living in Yerevan who had at least one 1-3 months old child registered in Primary HealthCare (PHC) facilities and had probable PPD .Results: The study revealed that the association between maternal age at the last child birth and probable PPD was varying by the mode of delivery indicating that mode of delivery modified the effect of maternal age at the last childbirth on probable PPD. The study showed that the risk of probable PPD associated with the younger (<25 years) age at the last child birth was statistically significantly increased only among women who delivered their last child through Csection. Meanwhile, the risk of probable PPD associated with younger (<25 years) a great the last childbirth tended to be lower among those women who delivered their last child through vaginal delivery.

Study of Fedick et al. (2006), this study aimed to recognize maternal depression the method ,the dichotomous classification of depression used in this study is based on a



method described by Somers and Willms (2002). The 12-item version of the CES-D (Nlscy Depression Scale) was rescaled to produce a cut-off proportional to that of the full, 20-item CES-D where scores range from 0 to 60 and a score of 16 represents a classification of depression exposure to maternal depression in infancy appears to affect children's behavior at two years of age and these effects may persist to eight years of age and beyond, the results: The findings suggest that the effects of depression on children's behavior are evident as early as two years of age. This coincides with Stein et al.'s (1991) observation that effects of maternal depression in toddlers persisted well after their mothers' depression had remitted. These findings provide support for the hypothesis that children of mothers who experience depression in the first two years postpartum would display higher levels of anxiety, hyperactivity, and aggression and lower levels of pro-social behaviors than children of mothers who did not experience such depression. However, when additional predictor and demographic variables were added in Model 2, the main effects of maternal depression on children's behavior at age two disappeared and our second hypothesis was not supported.

#### Study of Stowe (1997) & Bloch et al. (2000) & Swendsen and Mazure (2000),

This study aimed to recognize adoptions, method adoption has become an acceptable avenue to establishing a family. The study reported that 1 of every 40 children less than 18 years in the United States isadopted (Kreider, 2003). In Israel, the percentages are still low, with adoptions accounting for only 0.25% of new additions to families; about 85% are international adoptions. Results: Nevertheless, unlike for biological mothers, there is a paucity of data on depression and other psychopathologies in adoptive mothers.

Study of H. Kim et al. (2007), title of study-Archives of Women's Mental Health: Automated depression screening in disadvantaged pregnant women in an urban obstetric clinic

Objective: A promising means of screening for depression among high-risk perinatal women involves interactive voice response (IVR) technology in which patients selfenter data into a database using a touch tone telephone. Our aim was to test the feasibility of using IVR to screen for depression among low-income, urban pregnant patients and to solicit their preferences for treatment. Methods: The study population



included a convenience sample of English-speaking pregnant patients awaiting routine prenatal visits in an urban obstetric clinic. Consenting subjects used a phone in a private clinic room to complete an IVR version of the Edinburgh Postnatal Depression Scale (EPDS). Results: All 54 participants who consented to the study were able to complete the IVR phone session. More than 90% expressed willingness to complete IVR interviews as part of routine prenatal and postpartum care. Sixteen out of 54 participants (29.6%) scored in the moderate to severe range for depressive symptoms (EPDS  $\geq 12$ ) which was consistent with a prior study in the same population using a validated paperpencil screen. Only 12 out of 21 (57%) depressed subjects indicated a desire to speak with a health care provider about how they are feeling. The majority of these depressed subjects preferred to speak with a social worker about housing or financial problems (92%) or an obstetrician or midwife (83%), while a minority (42%) wanted to speak with a mental health professional.

Conclusions: This pilot study suggests that it is feasible to use an automated phone interview to screen for depression in low-income, urban pregnant women.

**Study of Stewart D.E. et al. (2003)**, this study aimed to: provide a synthesis of the recent literature pertaining to risk factors associated with developing these condition methods: Databases relating to the medical, psychological and social science literature were searched using specific inclusion criteria and search terms, to identify studies examining risk factors for postpartum depression. Studies were identified and critically appraised in order to synthesize the current findings. The search resulted in the identification of two major meta-analyses conducted on over 14,000 subjects, as well as newer subsequent large-scale clinical studies. The results of these studies were then summarized in terms of effect sizes as defined by Cohen. Key Findings: The findings from the meta-analyses of over 14,000 subjects, and subsequent studies of nearly 10,000 additional subjects found that the following factors were the strongest predictors of postpartum depression: depression during pregnancy, anxiety during pregnancy, experiencing stressful life events during pregnancy or the early puerperium, low levels of social support and having a previous history of depression. Moderate predictors were high levels of childcare stress, low self esteem, neuroticism and infant temperament.

Study of Edberg, MA, MD, FRCPC (2003), this study aimed to recognize if depressed mothers are much less likely to use an affectionate tone, methods: A study by Edberg on



mother-child attachment looked at 45 randomly selected mother-child pairs. These pairs were chosen using the Edinburgh Postnatal Depression Scale (EPDS) form, measuring postpartum depression in the community. 326 women returned the form and of the 326, 24 scoring above twelve were recruited and 21 women scoring less than nine were recruited. Key Findings:

Depressed mothers are much less likely to use an affectionate tone while speaking to their infants. They have also been known to be much less vocally and facially expressive and use less infant-directed speech. Infant-directed speech also commonly referred to as, "mothers" or "parents" (Bettes 1988) and is different than adult-directed speech in that a greatly exaggerated prosody is used and it elicits the infant's attention much more. (Kaplan, Bachorowski, Smoski, & Hudenko, 2002) Consequences of maternal depression on the infant may include learning difficulties because of the lack of infant directed speech. Senior psychologists then scored the interaction between mother and child. The first two taped situations were scored on a five point scale; 1 (being the area of most concern) to 5 (being an area of strength). In the third situation, the attachment behavior was put into three groups based on how the child reacted to the mother's return.

Study of FlanaganC. et al. (1992), this study aimed to recognize -Emotions in response to infant care, objective: To assess the extent that antic pated maternal emotions in response to infant care (infant care emotionality or frustration and dissatisfaction with infant crying or fussing, or both), several forms of social support, and socioeconomic status explain fourth-week postpartum depressive symptoms of adolescent mothers. Design secondary multiple regression analysis of a subset of variables from a larger longitudinal Studies that examined adolescent mothers and infants Setting: Two university teaching hospitals in Western Canada. Participants: Convenience sample of 78 healthy adolescent mothers. Main Outcome Measures: Prenatal anticipated infant care emotionality, perceived family and friend social support, socioeconomic status, enacted social support, and postpartum depressive symptoms results: Anticipated infant care emotionality (R = .19) and socioeconomic status (R = .19) = .07) significantly predicted postpartum depressive symptoms. Family support, friend support, and enacted social support were not significant predictors of postpartum depressive symptoms. Conclusion: Nurses in various settings can assess the pregnant adolescent's anticipated infant care emotionality and socioeconomic status to determine



their potential risk or vulnerability to postpartum depressive symptoms. More negative prenatal infant care emotionality was the strongest predictor of postpartum depressive symptoms. Validation of study findings with a larger, more representative sample is recommended.

**Study of Brown S, Lumley J (2000),** this study aimed to recognize -Physical health problems after childbirth and maternal depression at six to seven months postpartum.

Background whilst the prevalence and correlates of postpartum depression are well established, far less is known about postpartum anxiety. Studies have described the association between socio-demographic factors and postpartum depression, yet few have explored the association between stressors in women's lives around the time of having a baby and maternal psychological morbidity. This study aimed to: Describe the population prevalence of postpartum depression, anxiety, co-morbid anxiety and depression and social health issues; and to examine the association between postpartum psychological and social health issues experienced in the six months following birth. Methods Population based survey of all women who gave birth in Victoria and South Australia in September/October 2007. Women were mailed the survey questionnaire six months following birth. Anxiety and depression were measured using the Depression Anxiety Stress Scales (DASS-21).

Results Questionnaires were completed by 4,366 women. At six months postpartum the proportion of women scoring above the 'normal' range on the DASS-21 was 12.7% for anxiety, 17.4% for depression, and 8.1% for co-morbid depression and anxiety. Nearly half the sample reported experiencing stressful life events or social health issues in the six months following birth, with 38.3% reporting one to two and 8.8% reporting three or more social health issues. Women reporting three or more social health issues were significantly more likely to experience postnatal anxiety (Ad or = 4.12, 95% CI 3.0-5.5) or depression (Ad or = 5.11, 95% CI = 3.9-6.7) and co-morbid anxiety *and* depression (Ad or = 5.41, 95% CI 3.8-7.6) than women who did not report social health issues. Conclusions Health care providers including midwives, nurses, medical practitioners and community health workers need to be alert to women's social circumstances and life events experienced in the prenatal period and the interplay between social and emotional health. Usual management for postpartum mental health issues including Cognitive Behavioural Therapy and pharmacological approaches may not be effective if social health issues are not addressed. Coordinated and integrated



prenatal care that is responsive to women's social health may lead to improvements in women's emotional wellbeing following birth.

Study of Nicole Riehl (2007), this study aimed to recognize -Low income women: more likely to suffer from postpartum depression, **Iowa** Barriers to Prenatal Care Project Survey

This study aimed to: Poor women in Iowa are much more likely to suffer from postpartum depression than their wealthier counterparts, a new University of Iowa study shows. Methods In the study of 4,332 new mothers from four Iowa counties, UI psychologist Lisa Segre found that 40 percent of Iowa mothers with a household income less than \$20,000 suffered from clinically significant postpartum depression. In contrast, only 13 percent of new mothers with a household income of \$80,000 or more were considered clinically depressed."Forty percent of Iowa's lowest-income mothers are facing the double burden of being depressed and being poor," said Segre, adjunct assistant professor and research scientist in psychology, a department in the College of Liberal Arts and Sciences.

Conclusions "Women who are poor already have a lot of stress, ranging from poor living conditions to concerns about paying the bills. The birth of an infant can represent additional financial and emotional stress, and depression negatively impacts the woman's ability to cope with these already difficult circumstances."

**Study of Boury JM**. et al. ( 2004), this study examined the relationship of depressive symptoms to psychosocial and life style variables in postpartum women, the Mothers' Overweight Management Study (MOMS) was a randomized, weight-gain prevention trial. Baseline data are presented on the Beck Depression Inventory (BDI), Perceived Stress Scale, Social Support Questionnaire, smoking status, body weight, waist circumference, and step counts. Subjects/setting: The study was conducted at the Special Supplemental Feeding Program for Women, Infants, and Children (WIC). Women (N = 151) had to be over the age of 18 years and have a child under two years of age to participate results: Fifty-one percent of the women (mean age = 27 years; mean of 30 weeks postpartum) reported depressive symptoms (27% mild, 21% moderate, and 3% severe). Overall, stress scores were high (Mean = 27.2) and activity levels low (Mean steps = 5984). Mean body mass index was 30.2. Neither body weight nor steps walked were related to depressive symptoms in the bivariate or regression



analyses. However, stress and social support were related to symptoms. Women without symptoms reported significantly less stress than the mild and moderate/ severe symptom groups (Means = 23.4, 29.6, and 32.7, respectively, p <.001). Mean social support satisfaction was significantly higher for non-depressed women compared to women in the moderate/severe symptom range (Means = 5.9 and 4.7 respectively, p <.001). Stress and current smoking status explained 46% of the variance in depressive symptoms conclusion: These data emphasize the need for stress management and other tools such as increasing activity levels to prevent or lessen depressive symptoms.

Study of DTS Lee et al. (2000), this study aimed . To identify psychosocial risk factors for postnatal depression among Hong Kong Chinese women. Design: Prospective longitudinal study involving self-report questionnaires and face-to-face interviews. Setting: University teaching hospital, Hong Kong. Participants: Two hundred and twenty consecutive Chinese women who were admitted to the postnatal ward of the Department of Obstetrics and Gynecology from 6 November 1996 to 18 January 1997.Main outcome measures: Psychiatric diagnoses were established using the clinician-administered Structured Clinical Interview for the Diagnostic and Statistical Manual of Mental Disorders. Psychosocial risk factors were ascertained by conducting face-to-face interviews and using psychometric rating scales. Results: Of the 330 women who delivered during the study period, 220 (66.7%) agreed to participate in the study. The 220 participants had a mean age of 29 years (range, 16-42 years). Postnatal depression was associated with depression during pregnancy, elevated depression score at delivery, and prolonged postnatal 'blues'. Other correlates of postnatal depression were temporary housing accommodation, financial difficulties, two or more induced abortions, past psychiatric disorders (including depression), and an elevated neuroticism score. Postnatal depression was more likely if the spouse was disappointed with the gender of the newborn. Conclusion: Some risk factors are similar to those found in the West, whereas others (spouse disappointment and history of abortion) may be unique to the local population. To help identify women who are at particularly high risk of developing postnatal depression, obstetricians and midwives in Hong Kong should consider codifying the identified risk factors into a check-list.



Study of Maigun Edhborg et al. (2010-2011), this study aimed to: investigate the impact of depressive and anxiety symptoms on maternal bonding to the infant 2-3months postpartum and the influence of the mother's bonding to the infant during pregnancy and to her own caregiver during her childhood on maternal bonding 2–3 months postpartum. Methods this study originated from a community-based cohort study carried out in rural Bangladesh. Trained staff collected data and administrated the questionnaires during the third trimester of pregnancy, at childbirth and 2-3 months postpartum. Maternal depressive and anxiety symptoms were assessed with the Edinburgh Postnatal Depression Scale and the State Anxiety Inventory and the mother's emotional bonding to the infant with the Postpartum Bonding Questionnaire. Results The results showed that 11% of the women reported depressive symptoms, 35% anxiety symptoms, 3.4% both depressive and anxiety symptoms and 51% neither depressive nor anxiety symptoms. Mothers with depressive symptoms were older, were poorer, fewer were literate, reported more intimate partner violence and showed lower emotional bonding to their infants 2–3 months postpartum compared to mentally well and anxious mothers. Approximately 11% of the mothers reported mild bonding disturbances and nearly one third of them showed depressive symptoms.

Study of Kimberly Hines (2012), this study aimed to: To discuss a condition called postpartum depression and Miscarriage methods: A validated study selection/data extraction form detailed acceptance criteria. Numbers and percentages of depressed patients, by weeks of gestation or trimester, were reportedresults: Two reviewers independently extracted data; a third party resolved disagreement. Two raters assessed quality by using a 12-point checklist. A random effects meta-analytic model produced point estimates and 95% confidence intervals (CIs). Heterogeneity was examined with the  $\chi^2$  test (no systematic bias detected). Conclusion:

Rates of depression, especially during the second and third trimesters of pregnancy, are substantial. Clinical and economic studies to estimate maternal and fetal consequences are needed.

**Study of Gale Cengage (2011)**, this study aimed to investigate the effect of Family violence predicts postpartum depressionMethods: A random sample was selected for a computer-assisted telephone interview that asked whether they had experienced any of 10 types of abuse (actual or threatened) in the past 2 years, as well as questions from



Scale(EPDS) Electrical Power & the(EPDS)Edinburgh Postnatal Depression Distribution System EPDS Electronic Processing and Dissemination System (EPDS) Emergency Personnel Decontamination Station (EPDS) Emergency Priority Dispatch System (Edinburgh Postnatal Depression Scale). Interviews were conducted with 6,421 women, who represented a weighted sample of 76,508 women, according to Dr. O'Campo, an epidemiologist at the University of Toronto Research at the University of Toronto has been responsible for the world's first electronic heart pacemaker, artificial larynx, single-lung transplant, nerve transplant, artificial pancreas, chemical laser, G-suit, the first practical electron microscope, the first cloning of T-cells, . Most were 5-9 months post par-turn (average, 7.3 months). Results: Fully 11% of the women reported experiencing abuse in the past 2 years. In stratified formed or arranged in layers. Analyses, the prevalence was highest among teenagers (40%); women having an annual income of less than \$20,000 (28%); aboriginal women (30%); and no married, no cohabiting women (35%). By far, the leading perpetrators were partners (reported by 6% overall), followed by family members (2%), strangers/others (2%), and friends (1%). Abused women most often indicated that they had been pushed, grabbed, or shoved; were threatened with being hit; or had something thrown at them, according to Dr. O'Campo. And they most commonly reported that just one incident of abuse had occurred, and that the abuse had taken place only before pregnancy.

Conclusion: Several studies in the past few decades have explored the issue of violence around the time of pregnancy. "Yet, despite that, we actually don't have good estimates of prevalence" for reasons that include variation in the types of abuse captured, the time period and perpetrators assessed, and the women studied, noted Patricia J. O'Campo, Ph.D. In the national population-based study--the Maternity Experiences Survey--Dr. O'Campo and her colleagues used census data to identify Canadian women with a singleton infant aged 5-14 months.

Study of John L. Beard, et al. (1994), this study aimed to: determine whether iron deficiency anemia (IDA) in mothers alters their maternal cognitive and behavioral performance, the mother-infant interaction, and the infant's development. Methods: This article focuses on the relation between IDA and cognition as well as behavioral affect in the young mothers. This prospective, randomized, controlled, intervention trial was conducted in South Africa among 3 groups of mothers: non anemic controls and anemic mothers receiving either placebo (10  $\mu$ g foliate and 25 mg vitamin C) or daily iron (125)



mg FeSO<sub>4</sub>, 10 µg foliate, 25 mg vitamin C). Mothers of full-term normal birth weight babies were followed from 10 wk to 9 mo postpartum (n = 81). Results: Maternal hematologic and iron status, socioeconomic, cognitive, and emotional status, motherinfant interaction, and the development of the infants were assessed at 10 wk and 9 months postpartum. Behavioral and cognitive variables at baseline did not differ between iron-deficient anemic mothers and non anemic mothers. However, iron treatment resulted in a 25% improvement (P< 0.05) in previously iron-deficient mothers' depression and stress scales as well as in the Raven's Progressive Matrices test. Anemic mothers administered placebo did not improve in behavioral measures. Multivariate analysis showed a strong association between iron status variables (hemoglobin, mean corpuscular volume, and transferring saturation) and cognitive variables (Digit Symbol) as well as behavioral variables (anxiety, stress, depression). Conclusion: This study demonstrates that there is a strong relation between iron status and depression, stress, and cognitive functioning in poor African mothers during the postpartum period. There are likely ramifications of this poorer "functioning" on mother-child interactions and infant development, but the constraints around this relation will have to be defined in larger studies.

#### **5.2 Comment on the previous studies**

The researcher will discuss previous studies of prevalence of PPD and risk factors of PPD, the first one is the tool were used in these studies, the second is the samples of these studies, the third about the results of the previous studies , as the following:

#### 5.3 Tools of the previous studies:

Most of the studies used different tools, the most common international tools used in the previous studies were Self Report Scale (SRS) Dersk Ltales 2010, another used in their studies Likret Scale (L S), Dyadic J. Roprod Med. 2008, Where some prefer to use Adjustment Scale(DAS) Lee et al. 2000, O'Hara swain 1996, also we find some used Nilscy Depression Scale(NDS), Anxiety Stress Scale(ASS)

But almost of them used Edinburg Scale (EDNGS Stow1997, Bocl et al.2000, Finaly all of the studies scale used Beck meta analysis (BMA) based another scale as Sergon et al. 2006.



# 5.4 Samples of the previous studies

The sample number differentiate from one study to another some prefer to use small sample (n=19) Laura S.Abramas 2009, Victoria Hendrick et al. 2007, some used moderate sample (n=564 or 5267)as Derek Hales 2010, Howell et al. 2005but the most used large sample (n=1400) Robertson et.al 2009, or very large sample (n=26877) as Surgeon et al. 2006.

# 5.5 Summary of the previous studies

The result differs in their result, and it was as the following:

**5.5.1 Previlance of PPD**: in some countries according to studies do in it were range from 10%-15% as Robertson et.al 2009, Journal of depression and women seeking 2006or 35%-60% as Victoria et .al2007, Journal of family practice 2001or20% as Derek Halaes 2010, howell EA et.al 2009Glosser S et.al 2005

# 5.5.2 Socio demographic variables

# 5.5.2.1 Income

Most of the studies found relation between PPD and as Laura Abrams 2009, Robertson et.al 2009, Segre et.al2006

# 5.5.5.2 Marital Status

Many studies found relation between marital age and PPD as J.Reprot med 2008

# 5.5.2.3 Age

Many studies found relation between age and as J.report Med. 2008, Stewert D.E et al. 2003.

# 5.5.2.4 Social support

All the studies found relation between PPD social supports as Likewise 2006, C.Popper et al. 1992.

# 5.5.2.5 Marital Age

All the studies found relation between PPD and marital age asNova Scince publisher 2006.

# 5.5.2.6 Endocrine

All the studies found a relation between PPD and endocrine hormone changes as Schmidt Danaceauetal. 2000, Josefsson etal. 2002,Neter etal. 1995, Victoria Hendric MD et al. 2007.



# 5.5.2.7 Physical health problem

Some studies found relation between PPD and physical illness as Brown S., LumleyJ. 2000.

Other risk factors not found in research to discuses and compare with the result in these researches.



Chapter Three The Methodology



#### The Methodology

#### **3.1Introduction**

In this chapter the main methodological parts will be indicated by the researcher. They include; study design, study sample (study population, sample size, sampling process), study place, study instruments that used in collecting data, (description the measure of risk factors that tends to post partum depression among women in Gaza strip), data collection and data analysis procedures.

#### 3.2 Research Design

The Researcher used the quantitative analytical descriptive approach in the study. It deals with events, phenomena, and existed practices that are available in the study sample as it would be the most valuable as it is explained regarding the study sample (Abuhatab & Sadeq, 1991:104).

The researcher adopted the selection of descriptive analysis design because this type of studies is useful for descriptive purposes. The descriptive analysis design is relatively easy and economically to perform, which is needed in the present study that is limited by time and resources, and since it performed for academic purposes. All the mentioned criteria are discussed without any subjunctive mode of the Researcher himself. Here, with which the Researcher can interact successfully to describe and analyze in order to study the risk factor for postpartum depression among women in Gaza strip.

#### 3.3 The study Population

The population of the study includes all new delivery women in Gaza Strip at BCG vaccine (one to three weeks) after delivery, for the studying year (2011 - 2012). The population of the study was all newly delivered women who came to the clinic at BCG vaccine.

#### 3.4 The Pilot Sample of Study:

The researcher applied the measure of PPD with the related items on a random sample (Pilot Study Sample) that was 50 of new delivery women from the total sample of the study. She selected the pilot sample by taking the first 10 new delivered women who came to BCG vaccine at each clinic from the five main UNRWA clinics (North Gaza, Gaza, Middle Zone, KhanYounis, and Rafah), Those women newly delivered



withen week to threes of delivary at BCG vaccine and she applied the measure on them to know how it is applicable, also for calculating the validity and reliability coefficients of the measure using the most appropriate statistical methods.

### 3.5 The sample of study:

The study sample was chosen by taking all the women who came at UNRWA clinics for BCG vaccine, to be totally (440) of new delivered women from all states in Gaza Strip who delivered during the study period, noticed that varieties of ages and qualifications.

# 3.6 Setting of the study

It was carried out at UNRWA community health centers in Gaza Strip that include (Gaza, Jabalia, Nasserite Khan Younis, Rafah) clinics.

# 3.7 Sampling method

The researcher selected the study sample by using Census sample by taking all the new delivered women who came to UNRWA clinic for BCG vaccine through the period of data collection time within tow weekes, in different area of Gaza Strip . The researcher selected all new delivered women in the five big UNRWA clinics (Jabalia, Gaza, Nasserite, KhanYounis, and Rafah). The measure was explained to the researcher carefully .The researcher took in to consideration to select all delivered women randomly and to ensure confidentiality of data through ignoring the personal details.

#### 3.8 Place of study

The study is designed to be performed among delivered women in different area of Gaza Strip. The sample was chosen randomly to represent delivered women in the five big UNRWA clinics (Jabalia, Gaza, Nasserite, KhanYounis, and Rafah)

#### **3.9 Period of data collection time**

The study performed between 26/9/2012 to 10/10/2012.

# 3.10 Eligibility/ selection criteria

#### 3.10.1 Inclusion criteria

The inclusion criteria of the study was 'newly delivered women from one to three weekes at BCG vaccine at the five main UNRWA clinics (Jabalia, Gaza, Nasserite, KhanYounis, and Rafah), at the time of gathering data of the study between



26/9/2012 to 10/10/2012, these are the most eligible delivered women to be chosen as sample units of the study.

# **3.10.2** Exclusion criteria

There were no significant excluding criteria in this study except for delivered women were not belong to UNRWA clinic, and delivered women who delivered after the period of study

# 3.11 Instrument of Study

# The instrument of the study- Edinburg scale to measure postpartum depression

The questionnaire used in the study is considered as the main instrument to get the data and information, another questionnaire was designed by the researcher self for the study to measure the risk factors that tends to post partum depression among delivered women in Gaza strip.

- 1. Edinburgh measure for post partum depression.
- 2. The Socio -Demographic part.
- 3. The health dimension
- 4. The healthy situation
- 5. General Risk factors.

# Edinburg measure (universal measure)

The development of the Edinburgh Postnatal Depression Scale (EPDS) was first described by Cox et al in 1987 and was subsequently summarized in Prenatal Psychiatry (Cox & Holden, 1994). It was apparent that existing self-report scales for depression were unlikely to be useful in detecting depression in childbearing women. The State of Anxiety and Depression (SAD) self-report scale of Bedford& Foulds (1978), the Beck Depression Inventory (BDI; Beck et al, 1961) and the General Health Questionnaire (GHQ; Goldberg, 1972) all had serious limitations for use with pregnant and post-partum women. Women might endorse (tick) the somatic items on the scales because of the physiological changes of childbearing (e.g. weight gain, breathlessness and tachycardia), and childbearing women can disclose normal worries. Sleep difficulty as a symptom of depression is difficult to evaluate when sleep is being disturbed by the baby. In 1983 we noted that such 'false positives' in self-report questionnaires might reduce the reliable detection of neurosis in pregnant and post-partum women, and that scales specifically for use during pregnancy and in the puerperium might be needed (Cox, 1983). Snaith (1983), who had developed the Hospital Anxiety and Depression



(HAD) scale (Zigmond & Snaith, 1983), also recognized the need to modify existing self-report scales for use in specific clinical situations. Williams et al (1980) had emphasized that questionnaires validated for use on hospital samples should be revalidated when used in the community. Thus, by the mid-1980s the need to develop a depression scale specifically validated for use by childbearing women was apparent and increasingly compelling.

This checklist consists of 10 statements, which evaluate if delivered women have postpartum depression or not. These can be answered for the first two statement by giving 0 degree to the answer (as much as I always could), 1 degree for the answer (Not quite as much now), 2 degrees to (Definitely not so much now), and 3 degrees for (No never). Moreover, for the rest of statement it can be answered by giving 3 degrees for the answer (Yes, most of the time), 2 degrees for the answer (Yes, sometimes), 1 degree for the answer (Not very often), and 0 degree for the answer (No, not at all).

Note: the Edinburg measure measured by scale range from 0to15 and the answeres score collected .the result from 0-9 mean no PPD, but score from10-12 mean possible PPD, more than 13 score mean sure PPD.

#### - Socio-demographic status (developed by the researcher)

This was gathered from delivered women by a special related page includes Religion, accommodation and his type, education level, Job For the women and her husband, Income, Age women and her husband ,Age at marriage, Number of Children, gender of last baby, the no. of males and females, family size, number of marriages for the sample.

#### - The health dimension (developed by the researcher)

This part measures the general health problems that the women have, including previous hospital admissions, having surgeries, period problems, mental health problems and anemia issues etc.

#### - The health situation (developed by the researcher)

This part measures the general health problems that are related to the last delivery, including the hospital admissions, hardness of the delivery, health problems and diseases that were faced during pregnancy, mental health problems that were faced during pregnancy and healthcare received etc.



#### - General Pressure measurement:

This checklist consists of 45 statements covering five different pressures that delivered women may have suffered from. This checklist covers how much delivered women have suffered from many several of pressure. These pressures are **Religious pressure** '9 statements, **Economic, cultural and social pressures**'13 statements, **psychological pressures**'16 statements, **Professional and political pressures** '7 statements, these can be answered by giving one degree to the answer (strongly agree), two degrees for the answer (agree), 3 degrees to (neutral), four degrees for (disagree), and five marks for (strongly disagree).

# **3.12 Ethical considerations**

The ethical consideration and procedures are very important conditions in applying the research, all of the ethical procedures have to be followed perfectly without ignorance any of them; some of these important ethical procedures are:

- 1- An official letter of approval to conduct the study was obtained, which allowed the researcher to carry out the study directly after that day (Annex 5).
- 2- An official letter was obtained from the researcher in order to conduct the study in UNRWA clinic and facilitate the process of data collection (Annex 5).
  - Every subject in the study will have an explanatory letter about the study, the researcher explained to all delivered women that, participation is optional and emphasis confidentiality, ethical concept, respect for trust, and respect for people have been considered

#### 3.13 Data collection

The data should be collected directly from the delivered women from one to three weeks after delivery at BCG vaccine by using of structured measure. Detailed information about the study was given to the delivered women, before participation was obtained ,data collected within two weeks from 26/9/2012-10/10/2012 and that was limitation of the study because it need more time(Annex 3).

# 3.14 Data entry

Over viewing the questionnaire was the first step, prior to data entry, this followed by designing an entry model using the statistical package for Social since" SPSS". The questionnaires were entered into the computer by the researcher data cleaning was done through checking random sample number of the questionnaire and



through descriptive statistics frequencies for all variables, all suspected or missed values will be checked by receiving the available sheets.

# 3.15 Data analysis

Data had been entered onto computer using the SPSS so the ware program. Checking and cleaning had been performed .Frequency distribution and chi square; ANOVA, person and t tests will be used in statistical analysis. Significance of results will be when the p values are equal or less than (p < 0.05).

# 3.16 Demographic characteristics of the study sample:

In order to figure out the characteristics of the study sample, frequencies and percentages were calculated for the Religion, accommodation and his type, education level, job for the women and her husband, income, age women and her husband, age at marriage, number of children, gender of last baby, the number of males and females, family size, number of marriages for the sample, the results are listed below:



| Variable                                     | Class               | Ν   | %    | Variable            | Class                                | Ν   | %    |
|--|---------------------|-----|------|---------------------|--------------------------------------|-----|------|
| Religion                                     | Muslim              | 396 | 90   | Monthly<br>income   | less than 1000 shekel                | 158 | 38.8 |
|  | Missing<br>system   | 44  | 10   |                     | from 1000 - 2000 shekel              | 165 | 40.5 |
| State  | Gaza                | 87  | 19.8 |                     | more than 2000 shekel                | 84  | 20.6 |
|  | Jabalia             | 87  | 19.8 | Age of<br>woman     | less than 20 years                   | 44  | 10.2 |
|  | Nassirat            | 87  | 19.8 |                     | from 20 -30 years                    | 295 | 68.6 |
|  | Khan<br>Younis      | 90  | 20.5 |                     | from 30- 40 years                    | 83  | 19.3 |
|  | Rafah               | 89  | 20.2 |                     | 40 and more                          | 8   | 1.9  |
| Living/<br>Accommodation                     | village             | 47  | 10.8 | Age when<br>married | less than 18 years                   | 96  | 22.7 |
|  | camp                | 201 | 46.3 |                     | from 18 - 25 years                   | 294 | 69.5 |
|  | city                | 186 | 42.9 |                     | 25 years and more                    | 33  | 7.8  |
| Type of the<br>household                     | Ownership           | 326 | 74.9 | Husband's<br>age    | 25 and less                          | 79  | 18.3 |
|  | Rent                | 79  | 18.2 |                     | from 25 -35 years                    | 260 | 60.2 |
|  | dependent           | 19  | 4.4  |                     | from 35 -45 years                    | 73  | 16.9 |
|  | independent         | 11  | 2.5  |                     | 45 and more                          | 20  | 4.6  |
| Educational<br>level                         | Illiterate          | 16  | 3.7  | Job                 | Work                                 | 44  | 10.4 |
|  | Less than secondary | 68  | 15.6 |                     | doesn't work                         | 352 | 83.4 |
|  | secondary           | 172 | 39.5 |                     | Permanent job                        | 8   | 1.9  |
|  | Academic<br>or more | 179 | 41.1 |                     | intermittently job                   | 18  | 4.3  |
| Gender of last<br>baby                       | male                | 211 | 48.6 | Husband's<br>job    | permanent governmental job           | 148 | 34.4 |
|  | female              | 223 | 51.4 |                     | intermittently<br>governmental job   | 34  | 7.9  |
| Other<br>husband's<br>marriages              | yes                 | 26  | 6.0  |                     | permanent job in<br>UNRWA            | 13  | 3.0  |
|  | no                  | 409 | 94.0 |                     | intermittently job k in UNRWA        | 8   | 1.9  |
| If yes, the order<br>in wives                | The first           | 144 | 85.7 |                     | a permanent Private sector job       | 69  | 16.0 |
|  | the second          | 23  | 13.7 |                     | intermittently Private<br>sector job | 64  | 14.9 |
|  | more                | 1   | 0.6  |                     | doesn't work                         | 94  | 21.9 |
| Number of marriages for the sample The first |                     |     |      |                     |                                      | 261 | 93.5 |
| Tumbe  | the second          | 18  | 6.5  |                     |                                      |     |      |

Table (3.1) Demographic Characteristics of the study sample

# - Religion:

396 women representing (90.0%) of the total sample were Muslims, while 44 women that are (10.0%) of the total sample didn't respond.



# - State:

Almost 89women representing approximately (20.0%) of the total sample were from the following states: Gaza, Jabalia, Nassirat, Khan-Younis, Rafah.

# - Living:

201 women representing (45.7%) of the sample live in camp, 166 of them representing (42.3%) of the sample live in city, while 47 women representing (10.7%) of the sample live in village.

# - Type of the household:

326 women representing (74.1%) of the sample they live in an own house who are the most in the study sample, 79 women representing (18.0%) of the sample live in rent house, while 19 women representing (4.3%) of the sample live in dependent house, and only 11 women representing (2.5%) of the sample live in independent house.

# - Educational Level:

179 women representing (40.7%) of the sample have academic or more certification, and 172 women representing (39.1%) of the sample have secondary certification, 68 women representing (15.5%) of the sample have less than secondary certification, while 16 women representing (3.6%) of the sample is illiterate.

# - Job:

352 women representing (80.0%) of the sample doesn't work who are the most of the study sample, 44 women representing (10.0%) of the sample work, while 18 women representing (4.1%) of the sample have an intermittently job, and 8 women representing (1.8%) of the sample have a permanent job.

# - Husband's job:

148 women representing (33.6%) of the sample her husband have a permanent governmental job, 94 women representing (21.4%%) of the sample her husband doesn't work, 69 women representing (15.7%) of the sample her husband have a permanent private sector job, 64 women representing (14.5%) of the sample her husband have a an intermittently private sector job, while 34 women representing (7.7%) of the sample her husband have a number of the sample her husband have a permanent job, and 13 women representing (3.0%) of the sample her husband have a permanent job in UNRWA, only 8 women representing (1.8%) of the sample her husband have intermittently job in UNRWA,

#### - Monthly income :

165 women representing (37.5%) of the sample their Monthly Salary from 1000 to 2000 shekel, 158 women representing (35.9%) of the sample their Monthly Salary less than


1000 shekel, while 84 women representing (19.1%) of the sample their Monthly Salary more than 2000 shekel.

## - Age:

295 women representing (67.0%) of the sample their age from 20 -30 years, 83 women representing (18.9%) of the sample their age from 30 -40 years, and 44 women representing (10.0%) of the sample their age less than 20 years, while 8 women representing (1.8%) of the sample their age 40 years and more.

## - Age when married:

294 women representing (66.8%) of the sample they were 18 -25 years when they get married, 96 women representing (21.87%) of the sample they were less than 18 years when they get married, while 33 women representing (7.5%) of the sample they were 25 years and more when they get married.

## - Husband's age:

260 women representing (59.1%) of the sample their husband's age from 25 -35 years, 79 women representing (18.0%) of the sample their husband's age 25 years and less, and 73 women representing (16.6%) of the sample their husband's age from 35 -45 years, while 20 women representing (4.5%) of the sample their husband's age 20 years and more.

## - Gender of last baby:

223 women representing (50.7%) of the sample their last baby was female, while 211 women representing (48.0%) of the sample the last baby they have was male.

## - Number of children:

The number of children for women in the sample was ranging between one to 11 children with mean equals 3.3 children and standard deviation equals 2.2.

| Variable                                  | Mean | Std. Deviation |
|---|------|----------------|
| Number of children                        | 3.34 | 2.18           |
| Number of male children                   | 1.70 | 1.46           |
| Number of female children                 | 1.72 | 1.48           |
| Number of persons living in the household | 6.75 | 3.84           |

## Table (3.2): Demographic Characteristics of the study sample

## - Number of male children:

The number of male children for women in the sample was ranging between 0 to 8 male children with mean equals 1.7 male children and standard deviation equals 1.5.



### - Number of female children:

The number of female children for women in the sample was ranging between 0 to 8 female children with mean equals 1.7 female male children and standard deviation equals 1.5.

## - Number of persons living in the household:

The number of **persons living in the household** with women in the sample was ranging between 1 to 30 persons with mean equals 6.7 persons and standard deviation equals 3.8

## - Number of marriages for the husband:

409 women representing (93.0%) of the sample their husband isn't Polygamous, while 26 women representing (5.9%) of their husband is Polygamous.

### - number in wives:

144 women representing (32.7%) of the sample they are the first wife, while 23 women representing (5.2%) of the sample they are the second wife, and 1 women representing (0.2%) of the sample they are more than second wife.

### - Number of marriages for the sample:

261 women representing (59.3%) of the sample their marriage are the first marriage to them, while 18 women representing (4.1%) of the sample their marriage are the second marriage to them.

## - The validity for the measure:

The validity of the measure was performed to check if the measure can really measure what it was designed to measure. The researcher had used in this study the referee validity and the internal consistency

## **Procedures of Study**

- Researcher has looked at a number of previous studies that related to the main topic of the study in addition to some of the books and references that may serve or help the same purpose to form a concept through the exposure of the theory.
- $\circ$   $\,$  The Researcher determined the study sample and its original community.
- The Researcher determined the study inquiries regarding the importance of the study and the previous studies.
- The study has been measured on the real sample of the study that consisted of (440) delivered women in different area in Gaza Strip.



• The study led to so the recommendations and the suggestions that have been taken in consideration.

In order to conduct a research study, and to get good and fruitful results, one of the most important roles to achieve that mission is to use the most suitable instrument. Several features should be taken in consideration when choosing an instrument; mainly, the acceptability, applicability, procedural adequacy, reliability, and validity. In the current study the researcher used the measurement that were design and reformed to meet the goals of the study.

#### The referee validity

The measure was introduced to eleven specialist's doctors from Education collage, nursing collage, psychiatric specialist .The items of the measure were modified according to their recommendations, and finally the measure was approved as an appropriate scale.

#### The internal consistency validity

The internal consistency indicates that the correlation of the total of each item/ statement with the total degree of the factor. It also indicates the correlation of the total of each factor with the total of the measure (Al Agha, 2004: 110). The validity has to be calculated by using Person's Correlation Coefficients.

To be sure of the internal consistency of the study instrument (**Edinburg to measure postpartum depression**), the researcher calculated Pearson Correlation Coefficient for all the paragraphs of each factor of the measure and the total degree of the scale. The next tables show that.



 Table (3.3) Pearson Correlation Coefficient and its statistical level of significant for

 each paragraph and the total degree of the instrument Edinburg

| No. | Items  | Pearson<br>correlation | p- value |
|-----|--|------------------------|----------|
|     | I have been able to laugh and see the funny side of things | 0.52                   | 0.001**  |
|     | I have looked forward with enjoyment to things             | 0.46                   | 0.001**  |
|     | I have blamed myself unnecessarily when things went wrong  | 0.32                   | 0.001**  |
|     | I have been anxious or worried for no good reason          | -0.11                  | 0.027**  |
|     | I have felt scared or panicky for no very good reason      | 0.54                   | 0.001**  |
|     | Things have been getting on top of me                      | 0.58                   | 0.001**  |
|     | I have been so unhappy that I have had difficulty sleeping | 0.58                   | 0.001**  |
|     | I have felt sad or miserable                               | 0.68                   | 0.001**  |
|     | I have been so unhappy that I have been crying             | 0.61                   | 0.001**  |
|     | The thought of harming myself has occurred to me           | 0.43                   | 0.001**  |

The previous table shows that all the paragraphs of the instrument are related to its total degree (all Pearson's Correlation were more than -0.11) in level 0.01, this indicates how high is internal consistency of the measure of Edinburg to measure postpartum depression.

## Reliability of the measure (Edinburg to measure postpartum depression):

The measure is said to be reliable when it gives the same results if it is reapplied in the same conditions on the same sample. The reliability can be measured by both ways: Alpha Cranach's and the Spilt- half techniques.

## Cranach's alpha:

To calculate the reliability of the test, the researcher used the following two methods:

Cranach's Coefficient Alpha: 
$$\alpha = \frac{K}{K-1} \left( 1 - \frac{\sum_{i=1}^{K} \sigma_{Y_i}^2}{\sigma_X^2} \right)$$

The researcher calculated the reliability of the test by using Alpha Cranach's formula, (K) is the number of items of the test,  $(\sigma_{\chi}^2)$  is the variance of the total test marks where  $(\sigma_{Yi}^2)$  is the component of the test and (i) is sample questions of the test



(Cranach's and Richard, 2004). The normal range of Cranach's coefficient alpha value between (0.0 and 1.0), and the higher values reflects a higher degree of internal consistency. The value of Cranach's alpha = (0.59), and this indicates strongly that the measure has a high reliability amount which meets the requirements of applying the measure on the sample of the study.

### Split half method:

The researcher calculated the reliability of the measure by using split half method as another way to test the reliability, this method works by dividing the whole test items into two parts, then the correlation coefficients between the sum of items for the first part and the sum of items for the second part were calculated, Pearson's correlation coefficient for the whole measure was (0.28), and the Spearman-Brown formula was (0.43), this indicates that the test has a high degree of reliability.

| The measure                              | No. of<br>items | Cranach's<br>Alpha | CORRELATION<br>BEFORE<br>MODIFY | CORRELATION<br>AFTER MODIFY |
|--|-----------------|--------------------|---------------------------------|-----------------------------|
| Edinburg for<br>postpartum<br>depression | 10              | 0.59               | 0.28                            | 0.43                        |

Table (3.4) Cranach's Alpha coefficients for all factors of the Measure

#### The Pressures measure:

#### The validity for the measure:

The validity of the measure is performed to check if the measure can really measure what it was designed to measure. The researcher had used in this study the referee validity and the internal consistency.

## The referee validity

The measure was introduced to eleven specialist's doctors from Education collage, nursing collage, psychiatric specialist .The items of the measure were modified according to their recommendations, and finally the measure was approved as an appropriate scale.

#### The internal consistency validity

To be sure of the internal consistency of the study instrument (**pressures**), the researcher calculated Pearson Correlation Coefficient for all the risk factors and the total measure of the scale. The next table shows that.



| Factor of pressure            | Pearson<br>correlation | p- value |
|-------------------------------|------------------------|----------|
| Religious                     | 0.11                   | 0.017*   |
| Economic, cultural and social | 0.69                   | 0.001**  |
| psychological                 | 0.74                   | 0.001**  |
| Professional and political    | 0.49                   | 0.001**  |

 Table (3.5): Pearson Correlation Coefficient and its statistical level of significant

 for each factor and the total degree of the measure

\*\* P<0.01

\*P<0.05 // P>0.05

The previous table shows that all factors are related to the total degree of measure (all Pearson's Correlation were more than 0.11) in level 0.01, this indicates the internal consistency of the pressures measure.

To be sure of the internal consistency of the statements and the factors of the study measure (risk factors/ pressures), the researcher calculated Pearson Correlation Coefficient for all the paragraphs of each factor of the measure and the total degree of the scale. The next tables show that.

 Table (3.6): Pearson Correlation Coefficient and its statistical level of significant

 for each paragraph and the total degree of first factor religious pressures

| No.   | Items of religious pressures  | Pearson<br>correlation | p- value |
|-------|---|------------------------|----------|
| 1.    | I had put on the head cover (Hijab) due to being totally convinced                                  | 0.32                   | 0.001**  |
| 2.    | I always agree with the well of God in all my life issues   | 0.15                   | 0.001**  |
| 3.    | I feel patient of all my husband behaves and actions  | 0.38                   | 0.001**  |
| 4.    | I don't feel jellies of woman that are given boys as new babies                                     | 0.56                   | 0.001**  |
| 5.    | I keep doing all the prays on their times   | 0.44                   | 0.001**  |
| 6.    | I refuse the idea of being given girls as new babies  | 0.34                   | 0.001**  |
| 7.    | I always feel satisfied in all aspects of my life   | 0.37                   | 0.001**  |
| 8.    | I hope that my kid will become a very committed person  | 0.29                   | 0.001**  |
| 9.    | People's talking affects negatively my life especially when I<br>am being given girls as new babies | 0.39                   | 0.001**  |
| ** P< | <0.01 *P<0.05 // P>0.05   |                        |          |



The previous table shows that all the paragraphs of the first factor are related to its total degree (all Pearson's Correlation were more than 0.15) in level 0.01, this indicates the internal consistency of the **religious pressures.** 

Table (3.7): Pearson Correlation Coefficient and its statistical level of significant for each paragraph and the total degree of second factor Economic, cultural and social pressures

| No    | Itoms of Feanomia oultural and gasial programs                                       | Pearson     | n voluo  |
|-------|--|-------------|----------|
| 190.  | items of Economic, cultural and social pressures                                     | correlation | p- value |
| 1.    | A new born baby increases the expenses of the family                                 | 0.33        | 0.001**  |
| 2.    | Lots of kids needs increases the expenses of the family                              | 0.40        | 0.001**  |
| 3.    | I was abused by my husband and he took my assists by force                           | 0.41        | 0.001**  |
| 4.    | Low income prevents me of eating healthy   | 0.53        | 0.001**  |
| 5.    | Thoughts of my husband are much different than mines                                 | 0.52        | 0.001**  |
| 6.    | I can't accept what people say and think when come to childbearing                   | 0.46        | 0.001**  |
| 7.    | My husband and his relevant prefer male babies.                                      | 0.50        | 0.001**  |
| 8.    | Being abused from my husband and his mother is affecting<br>my life and thoughts     | 0.60        | 0.001**  |
| 9.    | I don't have the ability to deal with people in different situations                 | 0.49        | 0.001**  |
| 10.   | Social communication with my husband's family affects my thoughts negatively         | 0.59        | 0.001**  |
| 11.   | Strong interventions of my husband in home issues affects<br>my relation with others | 0.59        | 0.001**  |
| 12.   | I can't raise my children according to my way because of<br>others interventions     | 0.54        | 0.001**  |
| 13.   | I feel embarrassing due to the extra weight I had gain after delivery                | 0.41        | 0.001**  |
| ** P< | <0.01 *P<0.05 // P>0.05  |             |          |

The previous table shows that all the paragraphs of the second factor are related to its total degree (all Pearson's Correlation were more than 0.33) in level 0.01, this indicates the internal consistency of Economic, cultural and social pressures.



| No   | Itoma of nauchological programs   | Pearson     | n voluo  |
|------|---|-------------|----------|
| 190. | items of psychological pressures  | correlation | p- value |
| 14.  | I always tend to be introvert   | 0.57        | 0.001**  |
| 15.  | I can't fix my own problems   | 0.55        | 0.001**  |
| 16.  | I have no ability to deal with the atitudes and crisis                          | 0.53        | 0.001**  |
| 17.  | I feel worried due to not trusting my husband                                   | 0.52        | 0.001**  |
| 18.  | Prevention of my husband form communicating with someone increases my tension   | 0.38        | 0.001**  |
| 19.  | I feel jells from the over loving of my husband to the kids                     | 0.41        | 0.001**  |
| 20.  | Losing someone dear in the house affects negatively my behaves                  | 0.33        | 0.001**  |
| 21.  | I feel too much anxiety on my husband and kids                                  | 0.17        | 0.001**  |
| 22.  | I feel worried when watching killing and destruction                            | 0.24        | 0.001**  |
| 23.  | I had sleeping disorders after the last delivery                                | 0.40        | 0.001**  |
| 24.  | I become angry for a very petty reasons after the last delivery                 | 0.51        | 0.001**  |
| 25.  | I feel embarrassing to discuss my psychological problems                        | 0.58        | 0.001**  |
| 26.  | I might seek the help from the sheikhs and Conjurer for my psychological issues | 0.51        | 0.001**  |
| 27.  | I faced persecution, physical and sexual abuse                                  | 0.44        | 0.001**  |
| 28.  | I was deprived of my kids at the past   | 0.43        | 0.001**  |
| 29.  | My husband always ignores my emotions and feeling                               | 0.54        | 0.001**  |
| ** P | <0.01 *P<0.05 // P>0.05   |             |          |

 Table (3.8): Pearson Correlation Coefficient and its statistical level of significant

 for each paragraph and the total degree of third factor psychological pressures

The previous table shows that all the paragraphs of the third factor are related to its total degree (all Pearson's Correlation were more than 0.17) in level 0.01, this indicates the internal consistency of the psychological pressures.



| <b>Table (3.9)</b> | : Pearson | Correla | tion C | oefficie | nt and | its stati | stical l | evel of signifi | cant |
|--------------------|-----------|---------|--------|----------|--------|-----------|----------|-----------------|------|
| for each p         | aragraph  | and the | total  | degree   | of the | fourth    | factor   | Professional    | and  |
| political pr       | essures   |         |        |          |        |           |          |                 |      |

| No.      | Items of Professional and political pressures  | Pearson<br>correlation | p- value |
|----------|--|------------------------|----------|
| 30.      | I don't agree with women careers   | 0.32                   | 0.001**  |
| 31.      | Losing my position due to my delivery affects negatively my thoughts   | 0.60                   | 0.001**  |
| 32.      | I can't manage spending my salary (someone else do)  | 0.56                   | 0.001**  |
| 33.      | I feel anxiety when thinking to leave my new born<br>baby and working  | 0.68                   | 0.001**  |
| 34.      | Leaving the baby at the nursery affects negatively my career   | 0.68                   | 0.001**  |
| 35.      | I feel annoyed a lot from the news covering the<br>bombardment of Gaza with phosphoric bombs and the<br>consequences of fetal malformation | 0.47                   | 0.001**  |
| 36.      | How to arrive to hospital in case of war or invasion<br>makes me panic   | 0.48                   | 0.001**  |
| ** P<0.0 | )1 *P<0.05 // P>0.05   |                        |          |

The previous table shows that all the paragraphs of the fourth factor are related to its total degree (all Pearson's Correlation were more than 0.32) in level 0.01, this indicates the internal consistency of the Professional and political pressures.

According to what was shown in the previous tables for the correlation coefficient of each factor/ with the whole total of the measure, it can be concluded that the measure has high amount of internal consistency and that makes it an appropriate a tool for measuring the objectives of the study.

## **Reliability of the measure (pressures):**

The measure is said to be reliable when it gives the same results if it is reapplied in the same conditions on the same sample. The reliability can be measured by both ways: Alpha Cronbach's and the Spilt- half techniques.

To figure out the reliability of the study instrument, the researcher calculated Alpha Cronbach's and the Spilt- half for all the paragraphs of each factor of the measure and the total degree of the scale. The next tables show that.



| Factor of pressure            | No. of<br>items | Cronbach's Alpha Correlation Before modify |      | Correlation<br>after<br>modify |
|-------------------------------|-----------------|--|------|--------------------------------|
| Religious                     | 9               | 0.35                                       | 0.13 | 0.22                           |
| Economic, cultural and social | 13              | 0.77                                       | 0.52 | 0.68                           |
| psychological                 | 16              | 0.80                                       | 0.57 | 0.73                           |
| Professional and political    | 7               | 0.69                                       | 0.38 | 0.55                           |
| Total pressures               | 45              | 0.87                                       | 0.67 | 0.80                           |

Table (3.10): Cronbach's Alpha coefficients and split-half for all factors of the pressure measure

The previous table shows that all factors and the total of the Measure have very high Cronbach's Alpha coefficients. It means that the measuring tool has high amount of reliability because the overall Cronbach's Alpha coefficients reaches (0.87) which proves the reliability of the Measure and its factors to be applied on the study sample. Moreover, the total of the Measure have very high Spilt –half coefficients. It means that the measuring tool has high amount of reliability because the overall Spilt –half coefficients reached (0.80) which proves the reliability of the Measure and its factors to be applied on the study sample.

According to what was shown in the previous tables for the Cronbach's coefficient and the Spilt- half coefficient of each factor with the whole total of the measure, it can be concluded that the measure has high amount of reliability and that makes it an appropriate a tool for measuring the objectives of the study.

## 3.17 Limitation of the study:

There were many constraints and Limitation of the study:

- **2.** The main limitation of this study was that, it is clinic- based study rather than population based
- 3. The question of generalization is still raised.
- **4.** Descriptive studies have limited capabilities in understanding in depth the cultural, social and economic motivation for the high previlance PPD among Palestinians women
- 5. Transportation was a major problem in the localities, and it's highly cost.



- **6.** Photocopy of more than 3800 pages of Arabic translated questionnaire was costly .this was only possible with the help and support of the health education promotion department
- **7.** Absence of the mother sometimes due to difficult labor or CS deli vary made it difficult to take all the delivered women or made the women to refuse participation in this study
- **8.** Presence the husband or mother in low prevented the ladies to answers the questionnaire actually or frankly especially questions related to mental illness.

## 3.18 Statistical methods used in the Study

To achieve the aim of the study, collected data have been processed and analyzed under the supervision of an academic supervisor and the statisticians and it was needed to perform the analysis of the collected data. Several appropriate statistical methods have been used in the analysis via the Statistical Package for Social Sciences (SPSS 17). This statistical program has a variety of options that makes it optimal for use in such studies. Were the data can be entered, labeled, cleaned, coded and recorded as different variables, and tested in many kinds of statistical tests that are available in the applications in this Package. In the following, a group of statistical methods that are used in the data analysis:

- Frequencies and percentages were calculated to identify the personal features of the items for the study sample and to determine their responses to the statements including the main factors of the measuring tool.
- The arithmetic mean in order to find out how high or low are the responses of the sample units for each statement and factor of the study, with the knowledge that is useful in order of expressing and distinguishing according to the highest arithmetic mean.
- Standard deviation was used to identify the amount of variations in responses of the sample units (women) of the study for each statement, variable, and factor.
- Pearson's correlation coefficient to measure the strength of the relation between the statements and the factors. Spearman Brown formula to determine the stability of the paragraphs and the factors.
- Cronbach's alpha Coefficients to determine the stability of the paragraphs and the factors.



- Analysis of variance test (ANOVA) to figure out the differences between the awareness for the sample within the variable with the three categories or more (years of experience, educational level).
- LSD test (Least Square Differences) for multiple dimensional comparisons between the differences of means in between the categories of the variables.

### **3.19 Definition of terms**

**Anemia:** Any woman whose hemoglobin concentration is less than 11gm/100ml in last pregnancy is considered anemic in this study.

Unemployed: included those with no monthly income including student

High education: 12 or more years of education

**Camp:** place which have mainly refugee population



Chapter Four Results



#### **4.1 Questions of the study:**

#### **Edinburgh measure of Postpartum Depression:**

## 1- What is the level of post partum depression toward the women in Gaza strip who recently delivered?

To figure out the level of post partum depression of women in Gaza strip who recently delivered, the researcher calculated the means, percentage and the percentage weight of each statement and the total measure.

The results showed that the sentence with the highest scores was the 5<sup>th</sup> statement that says "I have felt scared or panicky for no very good reason" with percentage weight equals (61.1%), then the 6th statement that says "Things have been getting on top of me" came at the second place with percentage weight (58.3%), and the third place came to the 7<sup>th</sup> statement that says "I have been so unhappy that I have had sleeping difficulty" with percentage weight (56.4%), then the 4th statement that says "I have been anxious or worried for no good reason" came at the fourth place with percentage weight (54.7%), then the 3rd statement that says "I have blamed myself unnecessarily when things went wrong" came at the fifth place with percentage weight (51.3%), and the next place came to the 9th statement that says "I have been so unhappy that I have been crying" with percentage weight (46.8%), then the 8th statement that says "I have felt sad or miserable" came at the seventh place with percentage weight (34.1%) then the 2nd statement "I have looked forward with enjoyment to things" came at the eighth place with percentage weight (30.8%), then the 1st statement "I have been able to laugh and see the funny side of things" came at the ninth place with percentage weight (26.9%), and the last priority place was to the 10th statement "The thought of harming myself has occurred to me" with percent weight (12.2%).

For the overall level of postpartum depression prevalence at women at the sample, the mean was 13.3 out of 30 and the percentage weight equals 44.3% that shows that women had a moderate level of postpartum depression prevalence.

The results are shown in the following Table:



| No. | Question                                       | As much<br>as I always<br>could % | Not quite<br>as much<br>now % | Definitely<br>not so<br>much now<br>% | No<br>never<br>% | mean   | %<br>weight |
|-----|--|-----------------------------------|-------------------------------|---------------------------------------|------------------|--------|-------------|
|     | I have been able to laugh                      |                                   |                               |                                       |                  |        |             |
| 1   | and see the funny side of                      | 45.9                              | 35.9                          | 9.8                                   | 8.4              | 0.81   | 26.9        |
|     | things   |                                   |                               |                                       |                  |        |             |
| 2   | I have looked forward                          | 38.5                              | 40.5                          | 11.2                                  | 9.8              | 0.92   | 30.8        |
|     | with enjoyment to things                       |                                   |                               |                                       |                  |        |             |
|     | I have blamed myself                           |                                   | 10.0                          |                                       |                  |        |             |
| 3   | unnecessarily when things                      | 17.5                              | 40.0                          | 21.4                                  | 21.1             | 1.54   | 51.3        |
|     | went wrong                                     |                                   |                               |                                       |                  |        |             |
| 4   | I nave been anxious or<br>worright for no good | 24.5                              | 35.0                          | 18.0                                  | 21.1             | 1.64   | 517         |
| -   | reason   | 24.3                              | 55.5                          | 18.0                                  | 21.1             | 1.04   | 34.7        |
|     | I have felt scared or                          |                                   |                               |                                       |                  |        |             |
| 5   | panicky for no very good                       | 26.9                              | 38.7                          | 25.3                                  | 9.1              | 1.83   | 61.1        |
|     | reason   |                                   |                               |                                       |                  |        |             |
| 6   | Things have been getting                       | 26.9                              | 34.7                          | 24.8                                  | 13.6             | 1.75   | 58.3        |
|     | on top of me                                   |                                   |                               |                                       |                  |        |             |
| _   | I have been so unhappy                         |                                   | 22 I                          |                                       | 110              | 1 - 50 |             |
| 7   | that I have had sleeping                       | 25.0                              | 33.4                          | 27.3                                  | 14.3             | 1.69   | 56.4        |
|     | difficulties                                   |                                   |                               |                                       |                  |        |             |
| 8   | miserable                                      | 12.8                              | 30.3                          | 30.5                                  | 26.4             | 1.29   | 43.1        |
| 0   | I have been so unhappy                         | 10 1                              | 30.8                          | 21.6                                  | 28 5             | 1 / 1  | 16.8        |
| 9   | that I have been crying                        | 17.1                              | 50.0                          | 21.0                                  | 20.3             | 1.41   | 40.0        |
| 10  | The thought of harming                         | 48                                | 80                            | 64                                    | 80.9             | 0.37   | 12.2        |
| 10  | myself has occurred to me                      | т.0                               | 0.0                           | 0.7                                   | 00.7             | 0.57   | 1 2.2       |
|     | Total  | Edinburg me                       | easure                        |                                       |                  | 13.28  | 44.3        |

 Table (4.1) Shows means, percentages, And the percentage weight of each

 Statement of the first measure (Edinburg)



From the previous table:





## What are percentages of each level of postpartum depression among new delivered women in Gaza Strip?

To figure out the level of postpartum depression that the new delivery women's are sufferings from, the researcher used frequency and percentage of each level postpartum depression degrees.

The results showed that 55.0% women from the sample suffering from a postpartum depression and need mental care, 26.1% women from the sample doesn't suffering from a postpartum depression, and 18.9% women possible postpartum depression and have to retry the test after two weeks.

The results are shown in the following Table:

Table (4.2) Shows means and percentages of each postpartum depression degrees

| Degree                                      | Frequency | Percent % |
|---|-----------|-----------|
| No postpartum depression                    | 115       | 26.1      |
| possible existence of postpartum depression | 83        | 18.9      |
| high postpartum depression                  | 242       | 55.0      |
| Total                                       | 440       | 100.0     |



### Figure (4.2) Shows percentages of each postpartum depression degrees



26.1% of women in the sample were not suffering from postpartum depression, and,73.9% women from the sample were suffering from postpartum depression

Table (4.3) Shows percentages of having postpartum depression

| Diagnose                     | Frequency | Percent |
|------------------------------|-----------|---------|
| No postpartum depression     | 115       | 26.1    |
| Having postpartum depression | 325       | 73.9    |
| Total                        | 440       | 100.0   |

Figure (4.3) Shows percentages of having postpartum depression





#### The Healthy Dimension:

## 3- What is the level of Healthy Dimension of the study sample:

To figure out the women's general health issues, the researcher calculated the frequencies and percentage of each question, as shown at the following Tables:

## • What is the number of Admissions (sleeping into hospitals) cases for women at the sample?

The result showed that 286 women representing 65.9% of the sample have never admitted to hospital, 148 women representing 34.1% of the sample have slept at hospital, and from the result we can see that 18 women representing 12.2% from women who slept at hospital before they have slept to give birth, 8.1% Caesarean delivery, 11.0% slept with their sick children, as shown at next tables:

Table (4.4) Shows frequencies and percentages of admission of women into hospitals

| Have you ever admitted to any hospital? | Ν   | %     |
|---|-----|-------|
| Yes                                     | 148 | 34.1  |
| No                                      | 286 | 65.9  |
| Total                                   | 430 | 100.0 |

Figure (4.4) Shows frequencies and percentages of admission of women into hospitals



The following table specifies reasons of admissions of the women at the sample:



| Table (4.5) shows frequencies and percentages of disease which make women | at the |
|---|--------|
| sample slept at hospital  |        |

| Why we're been admitted                         | N  | 0/2  |
|---|----|------|
| to the hospital?                                | 11 | /0   |
| Appendectomy                                    | 9  | 6.1  |
| For delivery                                    | 18 | 12.2 |
| Caesarean section                               | 12 | 8.1  |
| Ectopic pregnancy                               | 2  | 1.4  |
| Miscarriage                                     | 5  | 3.4  |
| Postnatal care                                  | 2  | 1.4  |
| Bleeding during pregnancy                       | 3  | 2.0  |
| Stomach pain during pregnancy                   | 2  | 1.4  |
| Tired of pregnancy                              | 3  | 2.0  |
| with my sick children                           | 11 | 7.4  |
| Neonatal care                                   | 4  | 2.7  |
| blood transfusions                              | 1  | 0.7  |
| an operation                                    | 9  | 6.1  |
| Bleeding after childbirth                       | 3  | 2.0  |
| Delayed refund delivery                         | 3  | 2.0  |
| Follow-up blood pressure                        | 6  | 4.1  |
| Antenatal care                                  | 3  | 2.0  |
| Fever   | 9  | 6.1  |
| Falling on the roof of the house                | 1  | 0.7  |
| a bloody bag after delivery                     | 1  | 0.7  |
| Kidney Gallstone                                | 2  | 1.4  |
| Cholecystectomy                                 | 3  | 2.0  |
| Urinary inflammation                            | 2  | 1.4  |
| Tonsillectomy                                   | 3  | 2.0  |
| injured from intifada                           | 1  | 0.7  |
| Blockage in the lung seventh month of pregnancy | 1  | 0.7  |
| Varicosity                                      | 1  | 0.7  |
| operation in the thyroid gland                  | 3  | 2.0  |
| Blockage in the artery                          | 1  | 0.7  |
| Coagulation                                     | 2  | 1.4  |



| Suicides                         | 1   | 0.7   |
|----------------------------------|-----|-------|
| Low water on the fetus           | 1   | 0.7   |
| Severe inflammation in the blood | 1   | 0.7   |
| Inflammation of the esophagus    | 1   | 0.7   |
| inflammation in stomach          | 1   | 0.7   |
| inflammation in the chest        | 1   | 0.7   |
| inflammation in the colon        | 1   | 0.7   |
| inflammation in the liver        | 1   | 0.7   |
| Hemorrhoid                       | 1   | 0.7   |
| eradication breast fibrosis      | 2   | 1.4   |
| Eclampsia                        | 3   | 2.0   |
| Premature birth                  | 4   | 2.7   |
| Nasal enclaves                   | 1   | 0.7   |
| Puerperal fever                  | 1   | 0.7   |
| Vascular pregnancy               | 1   | 0.7   |
| Maltese fever                    | 1   | 0.7   |
| Total                            | 148 | 100.0 |

## • What is the number of surgical operation the women at the sample had?

The result showed that 319 women representing 73.3% of the sample never have had an operation, and 114 women representing 26.3% of the sample had an operation before, the result shown at next tables:



| Have you ever had a surgical operation? | N   | %     |
|---|-----|-------|
| Yes                                     | 114 | 26.3  |
| No                                      | 319 | 73.7  |
| Total                                   | 433 | 100.0 |
| If yes, Type of surgical operation      |     |       |
| Tonsillectomy                           | 1   | 0.8   |
| C.S                                     | 7   | 5.3   |
| inguinal hernia                         | 1   | 0.8   |
| STONES IN THE kidney                    | 1   | 0.8   |
| Abortion                                | 2   | 1.5   |
| Uterus fibroids                         | 2   | 1.5   |
| Tonsillectomy                           | 7   | 5.3   |
| Cholecystectomy                         | 6   | 4.6   |
| Hernia                                  | 4   | 3.1   |
| ENT operation                           | 1   | 0.8   |
| Hand operation                          | 3   | 2.3   |
| Typified fever                          | 1   | 0.8   |
| Ocular operation                        | 3   | 2.3   |
| Humoured                                | 4   | 3.1   |
| Dilation and curettage                  | 5   | 3.8   |
| Ectopic pregnancy                       | 2   | 1.5   |
| Feet veracious veins                    | 4   | 3.1   |
| Appendectomy                            | 21  | 16.0  |
| Lipomaectomy                            | 1   | 0.8   |
| Laparoscopy                             | 2   | 1.5   |
| Fever                                   | 1   | 0.8   |
| Lazar for ovum stimulation              | 1   | 0.8   |
| Thyroidectomise                         | 3   | 2.3   |
| Sinusitis                               | 1   | 0.8   |
| Vaginal bleeding                        | 2   | 1.5   |
| Brest fibroid                           | 1   | 0.8   |
| Caesarean suction                       | 37  | 28.2  |
| Normal vaginal deli vary                | 4   | 3.1   |
| Pielonidal                              | 1   | 0.8   |

Table (4.6) Shows frequencies and percentages of if women at the sample had an operation



# • Have women at the sample ever suffered from disorders in their periods for long times before pregnancy?

The result showed that 319 women representing 73.3% of the sample have not suffered from menstrual cycle disorders before pregnancy, and 116 women representing 26.7% of the sample have suffered from menstrual cycle disorders, the result shown at next tables:

| Table (4.7) Shows frequencies and percentages of if women at the sample suffered |
|--|
| from menstrual cycle disorders before pregnancy for long periods                 |

| have you ever suffered from menstrual cycle<br>disorders before pregnancy for long periods | N   | %     |
|--|-----|-------|
| Yes  | 116 | 26.7  |
| No   | 319 | 73.3  |
| Total  | 435 | 100.0 |

Figure (4.7) Shows frequencies and percentages of if women at the sample suffered from menstrual cycle disorders before pregnancy for long periods



# • Have women at the sample ever suffered from Tensions and concerns before period?

The result showed that 98 women representing 26.2% of the sample have suffered from Constant stomachache before menstrual cycle, 96 women representing 25.7% of the sample have suffered from Obsession before menstrual cycle, 84 women representing 22.5% of the sample have suffered from headache , and 44 women representing 11.8% of the sample have suffered from all of this things before menstrual cycle, and 29 women representing 7.8% of the sample have felt that they didn't want to speak for a long time, 23 women representing 6.1% of the sample have suffered from feelings of fear, the result shown at next tables:



| Have you ever suffered from Tensions and<br>concerns before period | N   | %     |
|--|-----|-------|
| Headache   | 84  | 22.5  |
| Feeling of Concern   | 96  | 25.7  |
| sense of fear  | 23  | 6.1   |
| want not to speak for a long time                                  | 29  | 7.8   |
| Constant abdomen pain  | 98  | 26.2  |
| All of the above   | 44  | 11.8  |
| Total  | 374 | 100.0 |

| Table (4.8) Shows frequencies and percentages of if women at the sample have |
|--|
| suffered from Tensions and concern before menstrual cycle                    |

### • Have women at the sample ever suffered from psychological illnesses before?

The result showed that 409 women representing 94.0% of the sample have not suffered from psychological illness, and 26 women representing 6.0% of the sample have suffered from psychological illness like depression because of home problems representing 16.7% from the sample who suffered, 3 women representing 12.5% have suffered from deep depression, also 3 women representing 12.5% have suffered from depression because of problems of divorces, the result shown at next tables:



| Have you suffered from psychological illnesses before?                                 | N   | %     |
|--|-----|-------|
| Yes  | 26  | 6.0   |
| No   | 409 | 94.0  |
| Total  | 435 | 100.0 |
| If yes, type of psychological illnesses  |     |       |
| Depression because of my husband's second marriage and his treatment with the new wife | 2   | 8.3   |
| deeply sadness because of my father's illness  | 1   | 4.2   |
| home problems  | 4   | 16.7  |
| problems of divorce  | 3   | 12.5  |
| deep depression  | 3   | 12.5  |
| Anxiety  | 2   | 8.3   |
| Perturbation   | 1   | 4.2   |
| postpartum depression after the second baby  | 1   | 4.2   |
| Self-hatred and Fear   | 1   | 4.2   |
| continuously headache  | 2   | 8.3   |
| panic disorder   | 1   | 4.2   |
| Introvert  | 1   | 4.2   |
| depression because of my father death  | 1   | 4.2   |
| depression because of losing of many relatives<br>during the last war                  | 1   | 4.2   |

 Table (4.9) Shows frequencies and percentages of if women at the sample have

 suffered from psychological illnesses before and the kind of it

#### • Have women at the sample ever suffered from anemia?

The result showed that 301 women representing 69.0% of the sample have not suffered from anemia before, and 135 women representing 31.0% of the sample have suffered from anemia, and the HB ratio range from 6 to 12 with mean 9.05 and standard deviation 1.19, the results are shown at next table:

Table (4.10) Shows frequencies and percentages of if women at the sample that have suffered from anemia

| Have you ever suffered from anemia? | Ν   | %     |
|-------------------------------------|-----|-------|
| Yes                                 | 135 | 31.0  |
| No                                  | 301 | 69.0  |
| Total                               | 436 | 100.0 |



Figure (4.10) Shows frequencies and percentages of if women at the sample that have suffered from anemia



 Table (4.11) Shows descriptive of blood HB of if women at the sample that have

 suffered from anemia

| Variable | N   | Min | Max | Mea<br>n | Std.<br>Deviation |
|----------|-----|-----|-----|----------|-------------------|
| Blood HB | 136 | 6   | 12  | 9.05     | 1.192             |

## • Is there a family history of psychological illness, what kind of it, and what is the relationship between you and the sick person?

The result showed that 408 women representing 94.9% of the sample don't have a family history of psychological illness, 22 women representing 5.1% of the sample have a family history of psychological illness. Moreover, it showed that 8 women representing 42.1% of the sample who have a family history of psychological illness their relatives suffered from depression, 5 women representing 26.3% of the sample who have a family history of psychological illness their relatives suffered from convulsions, and 1 women representing 5.3% of the sample who have a family history of psychological illness their relatives suffered from psychological illness, and with the same percentage suffered from mental disorder, Schizophrenia, Psychological pressure, panic and very irritable.

In addition, it showed that 8 women representing 44.4% of the sample who have a family history of psychological illness their brother who suffered from psychological illness, 4 women representing 22.2% of the sample who have a family history of psychological illness their uncle who suffered from psychological illness, and 1 women



representing 5.6% of the sample who have a family history of psychological illness she and her husband who suffered from psychological illness, and with the same percentage 5.6% their mother, son, father, cousin and sister who suffered from psychological illness, the result shown at next tables:

Table (4.12) Shows frequencies and percentages of if there is a family history of psychological illness, what kind of it, and what is the relationship between women and the sick person

| Is there a family history of psychological illness?       | Ν   | %     |
|---|-----|-------|
| Yes   | 22  | 5.1   |
| No  | 408 | 94.9  |
| Total   | 430 | 100.0 |
| What kind of it?  | Ν   | %     |
| psychological illness                                     | 1   | 5.3   |
| Aments  | 1   | 5.3   |
| Convulsions   | 5   | 26.3  |
| Schizophrenia   | 1   | 5.3   |
| Depression  | 8   | 42.1  |
| Psychological pressure                                    | 1   | 5.3   |
| panic   | 1   | 5.3   |
| very irritable  | 1   | 5.3   |
| Total   | 19  | 100.0 |
| What is the relationship between you and the sick person? | Ν   | %     |
| Brother   | 8   | 44.4  |
| me and my husband   | 1   | 5.6   |
| Mother  | 1   | 5.6   |
| Son   | 1   | 5.6   |
| Uncle   | 4   | 22.2  |
| Father  | 1   | 5.6   |
| Cousin  | 1   | 5.6   |
| Sister  | 1   | 5.6   |
| Total   | 18  | 100.0 |



### The Health Situation

## What is the level of Health Situation of the study sample?

### • What was the type of women's last delivery, and how they assess it?

The result showed that 338 women representing 80.3% of the sample their last delivery was normal, 83 women representing 19.7% of the sample their last delivery was Caesarean, 190 women representing 50.9% of the sample had easy birth, and 49.1% had a hard birth, the result shown at next tables:

 Table (4.13) Shows frequencies and percentages of what was the type of women's last delivery, and how they assesses it

| What was the type of your last delivery? | Ν   | %     |
|--|-----|-------|
| Normal                                   | 338 | 80.3  |
| C.S                                      | 83  | 19.7  |
| Total                                    | 421 | 100.0 |
| How it was?                              | Ν   | %     |
| Easy                                     | 190 | 50.9  |
| Hard                                     | 183 | 49.1  |
| Total                                    | 373 | 100.0 |

#### • Where women at the sample have delivered?

The result showed that 368 women representing 86.8% of the sample they have delivered in hospital, 56 women representing 13.2% of the sample they have delivered in private clinic, the result shown at next tables:

## Table (4.14) Shows frequencies and percentages of where women at the sample have delivered

| Where you have delivered? | Ν   | %     |
|---------------------------|-----|-------|
| Hospital                  | 368 | 86.8  |
| Private Clinic            | 56  | 13.2  |
| Total                     | 424 | 100.0 |

• Have women at the sample suffered from those diseases below through last pregnancy?

The result showed that 137 women representing 31.3% of the sample they haven't suffered from disease through last pregnancy, 106 women representing 24.2%



of the sample they have suffered from Pain in back and feet, 69 women representing 15.8% of the sample they have suffered from Recurring inflammation in urine, 57 women representing 13.0% of the sample they have suffered from Decompression, 30 women representing 6.8% of the sample they have suffered from Severe stomach pain, 17 women representing 3.9% of the sample they have suffered from Diabetes, 10 women representing 2.3% of the sample they have suffered from Heart disease, 8 women representing 1.8% of the sample they have suffered from Other diseases, and 4 women representing 0.9% of the sample they have suffered from Hepatitis, the result shown at next tables:

| Table (4.15) Shows frequencies and percentages of if women at the sample suffered |
|---|
| from those diseases below through last pregnancy                                  |

| Have you suffered from those diseases below<br>through last pregnancy? | Ν   | %     |
|--|-----|-------|
| Diabetes   | 17  | 3.9   |
| Hypotension  | 57  | 13.0  |
| Heart disease  | 10  | 2.3   |
| Hepatitis  | 4   | 0.9   |
| Frequent urinary infections  | 69  | 15.8  |
| Pains in back and feet   | 106 | 24.2  |
| Severe stomach pain  | 30  | 6.8   |
| Other diseases   | 8   | 1.8   |
| Nothing  | 137 | 31.3  |
| Total  | 438 | 100.0 |

Figure (4.15) Shows frequencies and percentages of if women at the sample suffered from those diseases below through last pregnancy





# • Have women at the sample suffered from one of next Psychological phenomena through last pregnancy?

The result showed that 56.4% of women have suffered from Intermittent Panic, and 43.6 have suffered from continual Panic.

Moreover, it showed that 56.4% of women have suffered from Intermittent Anxiety, and 43.6 have suffered from continual Anxiety.

In addition, it showed that 62.2% of women have suffered from intermittent insomnia, and 37.8 have suffered from continual insomnia.

And it showed that that 67.9% of women have suffered from intermittent Anorexia, and 32.1 have suffered from continual Anorexia, the result shown at next tables:

# Table (4.16) Shows frequencies and percentages of if women at the sample suffered from those diseases below through last pregnancy

| Have you suffered from one of next Psychological | Continual | Intermittent |
|--|-----------|--------------|
| phenomena through last pregnancy?                | %         | %            |
| Panic  | 43.6      | 56.4         |
| Anxiety  | 43.6      | 56.4         |
| Insomnia   | 37.8      | 62.2         |
| Anorexia   | 32.1      | 67.9         |

## Had women at the sample done the Ultrasound during last pregnancy?

The result showed that 343 women representing 79.4% of the sample they have made Ultrasound imaging during last pregnancy, 89 women representing 20.6% of the sample they haven't made Ultrasound imaging during last pregnancy, the response of women who answered are shown at next tables:



| Have you made Ultrasound imaging during last pregnancy? | N   | %     |
|---|-----|-------|
| Yes   | 343 | 79.4  |
| No  | 89  | 20.6  |
| Total   | 432 | 100.0 |
| If yes, why?  | Ν   | %     |
| To know the gender of the fetus                         | 31  | 9.7   |
| To check on the health statue of the fetus              | 229 | 71.8  |
| To give birth   | 3   | 0.9   |
| blood pressure checked                                  | 5   | 1.6   |
| Follow-up with the pregnancy                            | 4   | 1.3   |
| Pressures from my family and my husband's family        | 5   | 1.6   |
| to prepare clothes for the baby                         | 2   | 0.6   |
| To check on my health because caesarean birth           | 2   | 0.6   |
| Feeling Curiosity                                       | 4   | 1.3   |
| Feeling tired mentally                                  | 3   | 0.9   |
| Fear of having a baby with congenital malformations     | 6   | 1.9   |
| Anti partum haemorrhage                                 | 3   | 0.9   |
| Mal presentation  | 3   | 0.9   |
| Abruption placenta                                      | 2   | 0.6   |
| Continues abdominal pain                                | 2   | 0.6   |
| Disasters(natural)                                      | 2   | 0.6   |
| IVF   | 2   | 0.6   |
| Huge baby   | 5   | 1.6   |
| Twins   | 2   | 0.6   |
| Polyhydrominous   | 2   | 0.6   |
| Oligohydrominous  | 2   | 0.6   |
| Total   | 319 | 100.0 |

Table (4.17) Shows frequencies and percentages of if women at the sample madeUltrasound imaging during last pregnancy

## • Have women at the sample asked the doctor about fetus's gender?

The result showed that 301 women representing 71.8% of the sample they have asked the doctor about fetus's gender, 118 women representing 28.2% of the sample they haven't asked the doctor about fetus's gender, the result shown at next tables:



| Table(4.18)Showsfrequenciesandpercentages of if women at the sample askedthe doctor about fetus's gender. Have youasked the doctor about fetus's gender? | N   | %     |
|--|-----|-------|
| Yes  | 301 | 71.8  |
| No   | 118 | 28.2  |
| Total  | 419 | 100   |
| If yes, why?   | Ν   | %     |
| I want a baby girl   | 16  | 5.4   |
| I want a baby boy  | 35  | 11.9  |
| I want to know the gender of fetus   | 177 | 60.2  |
| To check on fetus health   | 14  | 4.8   |
| Pressure from other persons  | 12  | 4.1   |
| Feeling Curiosity and desire to know   | 18  | 6.1   |
| To prepare babies clothes and stuffs   | 11  | 3.7   |
| To find a suitable baby's name   | 2   | 0.7   |
| No specified reasons   | 5   | 1.7   |
| Other reasons  | 4   | 1.4   |
| Total  | 294 | 100.0 |

## • Have women at the sample felt extremely warry from the result of Ultrasound imaging?

The result showed that 305 women representing 71.8% of the sample they haven't felt extremely wary from the result of Ultrasound imaging, 120 women representing 28.2% of the sample they have felt extremely wary from the result of Ultrasound imaging, the result shown at next tables:

## Table (4.19) Shows frequencies and percentages of if women at the sample felt extremely wary from the result of Ultrasound imaging

| Have you felt extremely wary from<br>the result of Ultrasound imaging | N   | %     |
|---|-----|-------|
| Yes   | 120 | 28.2  |
| No  | 305 | 71.8  |
| Total   | 425 | 100.0 |



Figure (4.19) Shows frequencies and percentages of if women at the sample felt extremely wary from the result of Ultrasound imaging



## Have women at the sample ever taken psychological guidance services to overcome anxiety and fear during the last pregnancy, and how was the service?

The result showed that 288 women representing 67.4% of the sample they haven't taken psychological guidance services to overcome anxiety and fear during the last pregnancy, 139 women representing 32.6% of the sample they taken psychological guidance services to overcome anxiety and fear during the last pregnancy.

In addition, the sample who has taken psychological guidance services to overcome anxiety and fear during the last pregnancy 189 representing 83.3% said that the service was good, and 16.7% said it was not good, the result shown at next tables:

Table (4.20) Shows frequencies and percentages of if women at the sample ever taken psychological guidance services to overcome anxiety and fear during the last pregnancy, and how was the service

| Have you ever taken psychological guidance       |     |       |
|--|-----|-------|
| services to overcome anxiety and fear during the | Ν   | %     |
| Last pregnancy?                                  |     |       |
| Yes  | 139 | 32.6  |
| No   | 288 | 67.4  |
| Total  | 427 | 100.0 |
| How was the service provide?                     |     |       |
| Good   | 189 | 83.3  |
| Not good   | 38  | 16.7  |
| Total  | 227 | 100.0 |



120

## • Have women at the sample suffered from those events below in previous pregnancies?

The result showed that 274 women representing 63.1% of the sample they haven't suffered from any events in previous pregnancies, 95 women representing 21.9% of the sample they have had miscarriage in previous pregnancies, 27 women representing 6.2% of the sample they have had Bleeding after childbirth, 16 women representing 3.7% of the sample they have had low weight baby, 8 women representing 1.8% of the sample they have had child dies in the uterus, and with the same percentage 1.8% of the sample they have had dead child perinatal in previous pregnancies, 4 women representing 0.9% of the sample they have had Bleeding during pregnancy in previous pregnancies, 2 women representing 0.5% of the sample they have had baby with genetic disease in previous pregnancies , the result shown at next tables:

| Table (4.21) Shows frequencies and percentages of if women at the sample sufference | red |
|---|-----|
| from those events below in previous pregnancies                                     |     |

| Have you suffered from those events<br>below in previous pregnancies? | N   | %     |  |  |
|---|-----|-------|--|--|
| Miscarriage   | 95  | 21.9  |  |  |
| Intra Uterine fetal death   | 8   | 1.8   |  |  |
| Low birth weight  | 16  | 3.7   |  |  |
| baby with congenital disease  | 2   | 0.5   |  |  |
| peri natal death  | 8   | 1.8   |  |  |
| Ant partum hemorrhage   | 4   | 0.9   |  |  |
| Post partum hemorrhage  | 27  | 6.2   |  |  |
| Nothing   | 274 | 63.1  |  |  |
| Total   | 434 | 100.0 |  |  |

#### • Have women at the sample born a sick baby, and what was the disease?

The result showed that 384 women representing 94.1% of the sample they haven't had a sick baby, 24 women representing 5.9% of the sample they have born a sick baby. In addition, it showed that the sample which born a sick baby 9 women representing 37.5% of the sample born a baby with congenital malformations, 25.0% born a baby with heart disease, 20.8% born a baby with Thalassemia and 16.7% born a baby with kidney disease, the result shown at next tables:



| Have you born a sick baby? | Ν   | %     |
|----------------------------|-----|-------|
| Yes                        | 24  | 5.9   |
| No                         | 384 | 94.1  |
| Total                      | 408 | 100.0 |
| What was the disease?      | Ν   | %     |
| Heart disease              | 6   | 25.0  |
| Kidney disease             | 4   | 16.7  |
| Thalassemia                | 5   | 20.8  |
| Congenital malformations   | 9   | 37.5  |
| Total                      | 24  | 100.0 |

 Table (4.22) Shows frequencies and percentages of if women at the sample have

 born a sick baby, and what was the disease

### • Where did women at the sample have the medical care during pregnancy?

The result showed that 298 women representing 69.1% of the sample they have had the medical care in UNRWA's clinic, 71 women representing 16.5% of the sample they have had the medical care in private clinics, 28 women representing 6.5% of the sample they have had the medical care in governmental clinic, 21 women representing 4.9% of the sample they have had the medical care in a primary care clinic, 11 women representing 2.6% of the sample they haven't had a medical care in community institutions, the result shown at next tables:

 Table (4.23) Shows frequencies and percentages of where did women at the sample have the medical care during pregnancy

| Where did you have the medical care during pregnancy? | N   | %     |
|---|-----|-------|
| A primary care clinic                                 | 21  | 4.9   |
| Governmental clinic                                   | 28  | 6.5   |
| UNRWA's Clinic  | 298 | 69.1  |
| community institutions                                | 2   | 0.5   |
| Private clinics                                       | 71  | 16.5  |
| Nothing   | 11  | 2.6   |
| Total   | 431 | 100.0 |



#### **Measurement of Pressures:**

## 5- What are the level Pressure and its factors towards women in Gaza strip who recently delivered?

To figure out the responses of delivered women in terms of this measurement, the researcher used means, std. deviation and the percentage weight of each factor and the total factor.

The results showed that the pressures with the highest prevalence was psychological pressures with percentage weight equals 64.6%, the second Factor was the Economic, cultural and social pressures with percentage weight equals 64.6%, the third Factor according to the women's responses was the Professional and political pressures with percentage weight equals 56.2%, and the last Factor was Religious pressure with percentage weight equals 43.2%.

For the overall level of pressure prevalence at women in the sample, the mean was 135.7 out of 225 and the percentage weight equals 60.3% that shows that women had a high level of pressure prevalence.

The results are shown at the following Table:

 Table (4.24) shows means, std. deviations. And the percentage weight of each

 Factor of the measurement (pressure)

| No. | Factors of Pressure           | No. | Total  | Mean    | Std.      | %      |
|-----|-------------------------------|-----|--------|---------|-----------|--------|
|     |                               |     | degree | Witcuii | Deviation | weight |
| 1   | Religious                     | 9   | 45     | 19.44   | 3.52      | 43.2   |
| 2   | Economic, cultural and social | 13  | 65     | 41.98   | 7.99      | 64.6   |
| 3   | Psychological                 | 16  | 80     | 53.76   | 8.46      | 67.2   |
| 4   | Professional and political    | 7   | 35     | 19.66   | 4.50      | 56.2   |
|     | Total pressures               | 45  | 225    | 135.74  | 14.31     | 60.3   |

| Figure (4. | 24):  | Shows  | the | orders | and | weight | percentages | for | all | Factors | of | the |
|------------|-------|--------|-----|--------|-----|--------|-------------|-----|-----|---------|----|-----|
| measure (p | oress | sures) |     |        |     |        |             |     |     |         |    |     |





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#### Measurement of pressures and post partum depression:

## 6-What is the level of Pressure measure and its factors according to degrees of postpartum depression toward women in Gaza strip who recently delivered?

To figure out the responses of delivered women in terms of this measurement according to degrees of postpartum depression, the researcher calculated means, std. deviation and the percentage weight of each factor and the total factor according to each degree of postpartum depression.

The results showed that for women with no post partum depression have the highest degrees of the overall measure of total pressures with percentage weight equals 63.2%. While women with high post partum depression have the least degrees of the measure of total pressures with percentage weight equals 58.8%.

For all factors of the measure of pressures (Religious, Economic and cultural and social, Psychological, Professional and political), the results showed that women with no post partum depression have the highest degrees of all pressure factors, while women with high post partum depression have the least degrees of all pressure factors that were mentioned.

The results are shown at the following Table:


Table (4.25) shows means, std. deviations. And the percentage weight of each Factor of the measurement (pressure) according to degrees of postpartum depression

| Factor of        | Level of post partum depression | N   | Moon   | Std.      | %      |
|------------------|---------------------------------|-----|--------|-----------|--------|
| pressure         | Level of post partum depression | 1 M | Wiean  | Deviation | weight |
|                  | No postpartum depression        |     | 19.48  | 3.05      | 43.29  |
| Paligious        | possible postpartum depression  | 83  | 19.55  | 3.09      | 43.44  |
| Kenglous         | high postpartum depression      | 242 | 19.38  | 3.86      | 43.07  |
|                  | Total                           | 440 | 19.44  | 3.52      | 43.20  |
| Economia         | No postpartum depression        | 115 | 46.24  | 6.71      | 71.14  |
| cultural and     | possible postpartum depression  | 83  | 42.65  | 6.08      | 65.62  |
|                  | high postpartum depression      | 242 | 39.71  | 8.26      | 61.09  |
| social           | Total                           | 440 | 41.97  | 7.98      | 64.57  |
|                  | No postpartum depression        | 115 | 57.87  | 7.63      | 72.34  |
| Developical      | possible postpartum depression  | 83  | 55.27  | 6.37      | 69.09  |
| rsychological    | high postpartum depression      | 242 | 51.28  | 8.60      | 64.10  |
|                  | Total                           | 440 | 53.75  | 8.46      | 67.19  |
|                  | No postpartum depression        | 115 | 20.74  | 4.27      | 59.26  |
| Professional     | possible postpartum depression  | 83  | 20.42  | 4.18      | 58.34  |
| and political    | high postpartum depression      | 242 | 18.88  | 4.56      | 53.94  |
|                  | Total                           | 440 | 19.66  | 4.49      | 56.17  |
|                  | No postpartum depression        | 115 | 142.28 | 13.66     | 63.24  |
| Total ana annua  | possible postpartum depression  | 83  | 137.00 | 8.68      | 60.89  |
| i otai piessules | high postpartum depression      | 242 | 132.20 | 15.02     | 58.76  |
|                  | Total                           | 440 | 135.74 | 14.31     | 60.33  |

Figure (4.25): Shows the orders and weight percentages for all Factors of the measure (pressures) according to degrees of postpartum depression





## 4.2 Hypotheses of the study

Postpartum Depression and the Demographic variables of the sample:

1- There are no statistical significant differences ( $\alpha$ =0.05) in the degrees of postpartum depression of women in Gaza strip who recently delivered related to the demographic variables:

To test the truenerss of the hypothese, the researcher calculated the values of chi-square tests for the relation of postpartum depression levels and each of the the demographic variables.

The results show that 23.6% of the women suffering of high postpartum depression are from Nassirat, 20.7% are from Jabalia, 20.7% are from Khan Younis, 19.4% are from Rafah, and 15.7% are from Gaza.

It was found that there were no statistical significant relation for the states of living (p-value>0.05), all women in all states have almost the same degrees of postpartum depression.

The results are shown at the following tables:

| Table (4.26) | shows the | e living states for | women at the | e sample according | to level of |
|--------------|-----------|---------------------|--------------|--------------------|-------------|
| post partum  | depressio | n                   |              |                    |             |

|                |            | LEVEL      |            |            |        |  |  |  |
|----------------|------------|------------|------------|------------|--------|--|--|--|
|                |            | ]          | DEPRESSION |            |        |  |  |  |
| Stat           | 05         | No         | possible   | high       | Total  |  |  |  |
| Stat           | <b>C</b> 5 | postpartum | postpartum | postpartum |        |  |  |  |
|                |            | depression | depression | depression |        |  |  |  |
| Gaza           | Count      | 34         | 15         | 38         | 87     |  |  |  |
|                | %          | 29.6%      | 18.1%      | 15.7%      | 19.8%  |  |  |  |
| Jabalia        | Count      | 22         | 15         | 50         | 87     |  |  |  |
|                | %          | 19.1%      | 18.1%      | 20.7%      | 19.8%  |  |  |  |
| Nassir at      | Count      | 16         | 14         | 57         | 87     |  |  |  |
|                | %          | 13.9%      | 16.9%      | 23.6%      | 19.8%  |  |  |  |
| Khan<br>Younis | Count      | 20         | 20         | 50         | 90     |  |  |  |
|                | %          | 17.4%      | 24.1%      | 20.7%      | 20.5%  |  |  |  |
| Rafah          | Count      | 23         | 19         | 47         | 89     |  |  |  |
|                | %          | 20.0%      | 22.9%      | 19.4%      | 20.2%  |  |  |  |
| Total          | Count      | 115        | 83         | 242        | 440    |  |  |  |
|                | %          | 100.0%     | 100.0%     | 100.0%     | 100.0% |  |  |  |

Chi-sq=13.5 p-value>0.05





Figure (4.26) shows the living states for women at the sample according to level of post partum depression

There were no statistical significant relation for the religion, (p-value>0.05), most of the women in the sample were muslims.

 Table (4.27) Shows Religion for women at the sample according to level of post

 partum depression

|          | LEVE       |               |            |        |  |
|----------|------------|---------------|------------|--------|--|
| Religion |            |               |            |        |  |
|          | No         | possible high |            |        |  |
|          | postpartum | postpartum    | postpartum |        |  |
| Muslim   | depression | depression    | depression |        |  |
| Count    | 103        | 76            | 217        | 396    |  |
| %        | 100.0%     | 100.0%        | 100.0%     | 100.0% |  |

Most of the woman having high postpartum depression live in camps, with a percentage of 48.8%, while 37.1% live in the city, and 14.2% live in villages.

Thus for the accomodation, there were statistical significant relation (Chi-sq=10.9, p-value<0.05), And that indicate to the bad economic condition ,poverty,bad accomodation ,higy denisty of population bad live environmentand many streessores



lead toPPD.

| Table (4.28) Shows Type of Accommodation for women at the sample according to |
|---|
| level of post partum depression   |

|           |       | LEVE       |            |            |        |  |  |  |
|-----------|-------|------------|------------|------------|--------|--|--|--|
|           |       |            | DEPRESSION |            |        |  |  |  |
|           |       | No         | possible   | high       |        |  |  |  |
| Accommoda | tion  | postpartum | postpartum | postpartum | Total  |  |  |  |
|           |       |            | depression | depression |        |  |  |  |
| village   | Count | 6          | 7          | 34         | 47     |  |  |  |
|           | %     | 5.3%       | 8.6%       | 14.2%      | 10.8%  |  |  |  |
| camp      | Count | 49         | 35         | 117        | 201    |  |  |  |
|           | %     | 43.4%      | 43.2%      | 48.8%      | 46.3%  |  |  |  |
| city      | Count | 58         | 39         | 89         | 186    |  |  |  |
|           | %     | 51.3%      | 48.1%      | 37.1%      | 42.9%  |  |  |  |
| Total     | Count | 113        | 81         | 240        | 434    |  |  |  |
|           | %     | 100.0%     | 100.0%     | 100.0%     | 100.0% |  |  |  |

Chi-sq=10.9 p-value<0.05





Most of the women having high postpartum depression level live ownership houses, they live inouner house but ininmany relative people in the same bulding and that lead to iterferance from them in their live with a percentage of 74.2%, while 17.1% live in rent houses, 5% live in dependent houses and only 3.8% live in independent housing.

The results show that for the Type of housing, there were no statistical significant relation (p-value>0.05).



|              |       | LEVE       |            |            |        |  |  |
|--------------|-------|------------|------------|------------|--------|--|--|
|              |       |            | DEPRESSION |            |        |  |  |
| Type of hous | sing  | No         | possible   | high       | Total  |  |  |
|              |       | postpartum | postpartum | postpartum |        |  |  |
|              |       | depression | depression | depression |        |  |  |
| Ownership    | Count | 91         | 57         | 178        | 326    |  |  |
|              | %     | 79.8%      | 70.4%      | 74.2%      | 74.9%  |  |  |
| Rent         | Count | 20         | 18         | 41         | 79     |  |  |
|              | %     | 17.5%      | 22.2%      | 17.1%      | 18.2%  |  |  |
| dependent    | Count | 2          | 5          | 12         | 19     |  |  |
|              | %     | 1.8%       | 6.2%       | 5.0%       | 4.4%   |  |  |
| independent  | Count | 1          | 1          | 9          | 11     |  |  |
|              | %     | 0.9%       | 1.2%       | 3.8%       | 2.5%   |  |  |
| Total        | Count | 114        | 81         | 240        | 435    |  |  |
|              | %     | 100.0%     | 100.0%     | 100.0%     | 100.0% |  |  |

 Table (4.29) Shows Type of housing for women at the sample according to level of post partum depression

Chi-sq=7.3 p-value>0.05

For the educational level, there were no statistical significant relation (p-value>0.05), women having all educational levels have quevalent postpartum depression levels. For example, 42.5% of the woman who do not suffer of postpartum depression hold an academic or more educational level, while 41.5% of the woman who suffer of possible postpartum depression hold an academic or more educational level, and 40.4% of the woman who suffer of postpartum depression hold an academic or more educational level. And that indicated to all women havethe same chance to inffect by PPD and the environment with personal characteres play the role to inffect or not.



|                     | LEVE  |            |            |            |        |
|---------------------|-------|------------|------------|------------|--------|
|                     |       |            | DEPRESSION |            |        |
| Educational lev     | el    | No         | possible   | high       | Total  |
|                     |       | postpartum | postpartum | postpartum |        |
|                     |       | depression | depression | depression |        |
| Illiterate          | Count | 2          | 3          | 11         | 16     |
|                     | %     | 1.8%       | 3.7%       | 4.6%       | 3.7%   |
| Less than secondary | Count | 13         | 14         | 41         | 68     |
| Jee on and J        | %     | 11.5%      | 17.1%      | 17.1%      | 15.6%  |
| secondary           | Count | 50         | 31         | 91         | 172    |
|                     | %     | 44.2%      | 37.8%      | 37.9%      | 39.5%  |
| Academic or more    | Count | 48         | 34         | 97         | 179    |
|                     | %     | 42.5%      | 41.5%      | 40.4%      | 41.1%  |
| Total               | Count | 113        | 82         | 240        | 435    |
|                     | %     | 100.0%     | 100.0%     | 100.0%     | 100.0% |

 Table (4.30) Shows Educational level for women at the sample according to level of post partum depression

Chi-sq=4.2 p-value>0.05

For the working status, there were no statistical significant relation (p-value>0.05), so women with all working status have quevalent postpartum depression levels. For example, 9.8% of the woman who do not suffer of postpartum depression work, while 8.8% of the woman who suffer of possible postpartum depression work, and 11.3% of the woman who suffer of postpartum depression work.



| Working status        |       | LEVE       |            |            |        |
|-----------------------|-------|------------|------------|------------|--------|
|                       |       |            | DEPRESSION |            |        |
| working state         | u5    | No         | possible   | high       | 10001  |
|                       |       | postpartum | postpartum | postpartum |        |
|                       |       | depression | depression | depression |        |
| Work                  | Count | 11         | 7          | 26         | 44     |
|                       | %     | 9.8%       | 8.8%       | 11.3%      | 10.4%  |
| doesn't work          | Count | 96         | 69         | 187        | 352    |
|                       | %     | 85.7%      | 86.3%      | 81.3%      | 83.4%  |
| Permanent job         | Count | 3          | 1          | 4          | 8      |
|                       | %     | 2.7%       | 1.3%       | 1.7%       | 1.9%   |
| intermittently<br>job | Count | 2          | 3          | 13         | 18     |
|                       | %     | 1.8%       | 3.8%       | 5.7%       | 4.3%   |
| Total                 | Count | 112        | 80         | 230        | 422    |
|                       | %     | 100.0%     | 100.0%     | 100.0%     | 100.0% |

Table (4.31) Shows Husband's job for women at the sample according to level of post partum depression

Chi-sq=3.9 p-value>0.05

Most of the woman having high postpartum depression have husbands working in permanent governmental jobs, with a percentage of 31.6%, while 24.5% have a non working husband, 13.9% have permanent private sector job, 13.9% have non-permanent private sector jobs, 11% have non permanent governmental jobs, 3.4% have permanent UNRWA jobs, and only 1.7% have non-permanent jobs in UNRWA. The results show that for the husband's job, there were statistical significant relation (Chi-sq=20.8, p-value<0.05).



|                                 |       | LEVE       | L OF POSTPA | RTUM       |        |
|---------------------------------|-------|------------|-------------|------------|--------|
|                                 |       |            | DEPRESSION  | 1          |        |
| Husband's job                   |       | No         | possible    | high       | Total  |
|                                 |       | postpartum | postpartum  | postpartum |        |
|                                 |       | depression | depression  | depression |        |
| permanent governmental job      | Count | 36         | 37          | 75         | 148    |
|                                 | %     | 31.9%      | 46.3%       | 31.6%      | 34.4%  |
| A non-permanent governmental    | Count | 5          | 3           | 26         | 34     |
| јор                             | %     | 4.4%       | 3.8%        | 11.0%      | 7.9%   |
| permanent job in UNRWA          | Count | 4          | 1           | 8          | 13     |
| permanent job in errettri       | %     | 3.5%       | 1.3%        | 3.4%       | 3.0%   |
| A non-permanent job in          | Count | 3          | 1           | 4          | 8      |
| UNRWA                           |       | 5          | 1           |            | 0      |
|                                 | %     | 2.7%       | 1.3%        | 1.7%       | 1.9%   |
| a permanent Private sector job  | Count | 22         | 14          | 33         | 69     |
|                                 | %     | 19.5%      | 17.5%       | 13.9%      | 16.0%  |
| a non- permanent Private sector | Count | 24         | 7           | 33         | 64     |
| <u> </u>                        | %     | 21.2%      | 8.8%        | 13.9%      | 14.9%  |
| doesn't work                    | Count | 19         | 17          | 58         | 94     |
|                                 | %     | 16.8%      | 21.3%       | 24.5%      | 21.9%  |
| Total                           | Count | 113        | 80          | 237        | 430    |
|                                 | %     | 100.0%     | 100.0%      | 100.0%     | 100.0% |

## Table (4.32) Shows Husband's job for women at the sample according level of post partum depression

Chi-sq=20.8 p-value<0.05







For the monthly income, there were no statistical significant relation p-value>0.05), so women with all month incomes have quevalent postpartum depression levels. For example, 43.4% of the woman who do not suffer of postpartum depression have a monthly income ranging from 1000-2000 shekel , while 40.5% of the woman who suffer of possible postpartum depression have a monthly income ranging from 1000-2000 shekel, and 39.2% of the woman who suffer of postpartum depression have a monthly income ranging from 1000-2000 shekel.

|                         |       | LEVE       | L OF POSTPA | RTUM       |        |
|-------------------------|-------|------------|-------------|------------|--------|
|                         |       |            | DEPRESSION  | ſ          |        |
| Monthly income          |       | No         | possible    | high       | Total  |
|                         |       | postpartum | postpartum  | postpartum |        |
|                         |       | depression | depression  | depression |        |
| less than 1000 shekel   | Count | 37         | 27          | 94         | 158    |
|                         | %     | 34.9%      | 36.5%       | 41.4%      | 38.8%  |
| from 1000 - 2000 shekel | Count | 46         | 30          | 89         | 165    |
|                         | %     | 43.4%      | 40.5%       | 39.2%      | 40.5%  |
| more than 2000 shekel   | Count | 23         | 17          | 44         | 84     |
|                         | %     | 21.7%      | 23.0%       | 19.4%      | 20.6%  |
| Total                   | Count | 106        | 74          | 227        | 407    |
|                         | %     | 100.0%     | 100.0%      | 100.0%     | 100.0% |

 Table (4.33) Shows Monthly income for women at the sample according to level of post partum depression

Chi-sq=1.6 p-value>0.05

For the age, there were no statistical significant relation (p-value>0.05), so women with all ages have quevalent postpartum depression levels. For example, 72.3% of the woman who do not suffer of postpartum depression are from 20-30 years old, while 66.3% of the woman who suffer of possible postpartum depression are from 20-30 years old, and 67.6% of the woman who suffer of postpartum depression are from 20-30 years old.



|                    |       | LEVE       |            |            |        |  |
|--------------------|-------|------------|------------|------------|--------|--|
|                    |       |            | DEPRESSION |            |        |  |
| Age of women       |       | No         | possible   | high       | Iotai  |  |
|                    |       | postpartum | postpartum | postpartum |        |  |
|                    |       | depression | depression | depression |        |  |
| less than 20 years | Count | 9          | 13         | 22         | 44     |  |
|                    | %     | 8.0%       | 16.3%      | 9.2%       | 10.2%  |  |
| from 20 -30 years  | Count | 81         | 53         | 161        | 295    |  |
|                    | %     | 72.3%      | 66.3%      | 67.6%      | 68.6%  |  |
| from 30- 40 years  | Count | 21         | 14         | 48         | 83     |  |
|                    | %     | 18.8%      | 17.5%      | 20.2%      | 19.3%  |  |
| 40 and more        | Count | 1          | 0          | 7          | 8      |  |
|                    | %     | 0.9%       | 0.0%       | 2.9%       | 1.9%   |  |
| Total              | Coun  | 112        | 80         | 238        | 430    |  |
|                    | %     | 100.0%     | 100.0%     | 100.0%     | 100.0% |  |

Table (4.34) Shows Ages for women at the sample according to level of post partum depression

Chi-sq=7.6 p-value>0.05

For the age when get married, there were no statistical significant relation (p-value>0.05), so women with all ages when get married have quevalent postpartum depression levels. For example, 73.9% of the woman who do not suffer of postpartum depression are married at age ranging from 18-25 years old, while 64.1% of the woman who suffer of possible postpartum depression are married at age ranging from 18-25 years old, and 69.2% of the woman who suffer of postpartum depression are married at age ranging from 18-25 years old, and 69.2% of the woman who suffer of postpartum depression are married at age ranging from 18-25 years old.



|                      | A so when set mornied |            | OF PO      | STPARTUM   |        |
|----------------------|-----------------------|------------|------------|------------|--------|
| Age when get married |                       |            | DEPRESSION |            |        |
| Age when get married |                       | No         | possible   | high       | Total  |
|                      |                       | postpartum | postpartum | postpartum |        |
|                      |                       | depression | depression | depression |        |
| less than 18 years   | Count                 | 22         | 23         | 51         | 96     |
|                      | %                     | 19.8%      | 29.5%      | 21.8%      | 22.7%  |
| from 18 - 25 years   | Count                 | 82         | 50         | 162        | 294    |
|                      | %                     | 73.9%      | 64.1%      | 69.2%      | 69.5%  |
| 25 years and more    | Count                 | 7          | 5          | 21         | 33     |
|                      | %                     | 6.3%       | 6.4%       | 9.0%       | 7.8%   |
| Total                | Count                 | 111        | 78         | 234        | 423    |
|                      | %                     | 100.0%     | 100.0%     | 100.0%     | 100.0% |

 Table (4.35) Shows Age of husbands for women at the sample according to level of post partum depression

Chi-sq=3.6 p-value>0.05

Most of the woman having high postpartum depression their husbands were from 25-35 years old, with a percentage of 56.3%, while 19.6% have husbands who are 25 years old or less, 18.8% have husbands of ages from 35-45 years old, and only 5.4% of the woman with high postpartum depression have husbands of age of 45 or more. Thus for the husband's job, there were statistical significant relation (Chi-sq=14.7, p-value<0.05).



|                   |       | LEVEI      | C OF POSTPA | ARTUM      |        |  |  |
|-------------------|-------|------------|-------------|------------|--------|--|--|
|                   |       |            | DEPRESSION  |            |        |  |  |
| Age of husbane    | d     | No         | possible    | high       | IUtai  |  |  |
|                   |       | postpartum | postpartum  | postpartum |        |  |  |
|                   |       | depression | depression  | depression |        |  |  |
| 25 and less       | Count | 11         | 21          | 47         | 79     |  |  |
|                   | %     | 9.9%       | 25.9%       | 19.6%      | 18.3%  |  |  |
| from 25 -35 years | Count | 80         | 45          | 135        | 260    |  |  |
|                   | %     | 72.1%      | 55.6%       | 56.3%      | 60.2%  |  |  |
| from 35 -45 years | Count | 14         | 14          | 45         | 73     |  |  |
|                   | %     | 12.6%      | 17.3%       | 18.8%      | 16.9%  |  |  |
| 45 and more       | Count | 6          | 1           | 13         | 20     |  |  |
|                   | %     | 5.4%       | 1.2%        | 5.4%       | 4.6%   |  |  |
| Total             | Count | 111        | 81          | 240        | 432    |  |  |
|                   | %     | 100.0%     | 100.0%      | 100.0%     | 100.0% |  |  |

 Table (4.36) Shows Age of husbands for women at the sample according to level of post partum depression

Chi-sq=14.7 p-value<0.05

Figure (4.36) Shows Age of husbands for women at the sample according to level of post partum depression



The number of children for the woman with no postpartum depression range from 1 to 8 children, with a mean of 3.03, while the number of children for the woman with possible postpartum depression range from 1 to 11 children, with a mean of 2.98, and the number of children for the woman with high postpartum depression range from 1 to 10 children, with a mean of 3.62.



This shows that there were statistical significant relation (F-test=4.3, p-value<0.05), in which the woman having high postpartum depression have more children than the women no postpartum depression, finally woman having possible postpartum depression have the least number of children.

 Table (4.37) Shows Number children for women at the sample according to level of post partum depression

| Number of children                |     | Min | Max | Mean | Std.<br>Deviation |
|-----------------------------------|-----|-----|-----|------|-------------------|
| 1- No postpartum depression       | 113 | 1   | 8   | 3.03 | 1.892             |
| 2- possible postpartum depression | 82  | 1   | 11  | 2.98 | 2.211             |
| 3- high postpartum depression     | 241 | 1   | 10  | 3.62 | 2.265             |
| Total                             | 436 | 1   | 11  | 3.34 | 2.181             |

F- Value= 4.33 p-value= 0.014<0.05

For the Type of the last delivered baby, there were no statistical significant relation (p-value>0.05). For example, 52.5% of the last delivered baby for the women with high postpartum depression were males, while 47.5% of the last delivered baby for the women with high postpartum depression were females.

 Table (4.38) Shows Type of the last delivered baby for women at the sample according to level of post partum depression

|               |             | LEVE       | LEVEL OF POSTPARTUM |            |        |  |  |  |
|---------------|-------------|------------|---------------------|------------|--------|--|--|--|
|               |             |            | DEPRESSION          |            |        |  |  |  |
| Gender of the | e last baby | No         | possible            | high       | Total  |  |  |  |
|               |             | postpartum | postpartum          | postpartum |        |  |  |  |
|               |             | depression | depression          | depression |        |  |  |  |
| male          | Count       | 47         | 38                  | 126        | 211    |  |  |  |
|               | %           | 42.0%      | 46.3%               | 52.5%      | 48.6%  |  |  |  |
| female        | Count       | 65         | 44                  | 114        | 223    |  |  |  |
|               | %           | 58.0%      | 53.7%               | 47.5%      | 51.4%  |  |  |  |
| Total         | Count       | 112        | 82                  | 240        | 434    |  |  |  |
|               | %           | 100.0%     | 100.0%              | 100.0%     | 100.0% |  |  |  |

Chi-square= 3.6 p-value>0.05

For the number of male children, there were statistical significant relation (F-test=5.2, p-value<0.05), the woman having high postpartum depression have more male



children than the women with no postpartum depression, with a mean of 1.90, and woman having possible postpartum depression have the least number of male children, with a mean of 1.37.

For the number of female children, there were no statistical significant relation (p-value>0.05), the woman having high postpartum depression have more female children then the women with no postpartum depression, with a mean of 1.76, and woman having possible postpartum depression have the least number of female children, with a mean of 1.65.

For the number of other persons living at home, there were statistical significant relation (F-test=7.8, p-value>0.05), the woman having high postpartum depression have the most number of other persons living at home, with a mean of 7.38, then the women with no postpartum depression with a mean of 6.25, finally woman having possible postpartum depression have the least number of other persons living at home, with a mean of 5.62.



| Variable                      | Ν   | Min | Max | Mean | Std.      | F-test | p-value |
|-------------------------------|-----|-----|-----|------|-----------|--------|---------|
| , and a                       | 11  |     |     |      | Deviation |        | p vulue |
| Number of male children       |     |     |     |      |           | 5.25   | 0.006   |
| 1- No postpartum depression   | 114 | 0   | 8   | 1.53 | 1.42      |        |         |
| 2- possible postpartum        | 82  | 0   | 6   | 1 37 | 1 37      |        |         |
| depression                    | 02  | Ū   | 0   | 1.57 | 1.57      |        |         |
| 3- high postpartum depression | 241 | 0   | 8   | 1.90 | 1.49      |        |         |
| Total                         | 437 | 0   | 8   | 1.70 | 1.46      |        |         |
| Number of female children     |     |     |     |      |           | 0.24   | 0.786   |
| 1- No postpartum depression   | 113 | 0   | 8   | 1.67 | 1.39      |        |         |
| 2- possible postpartum        | 81  | 0   | 6   | 1.65 | 1 38      |        |         |
| depression                    | 01  | U   | 0   | 1.05 | 1.50      |        |         |
| 3- high postpartum depression | 241 | 0   | 8   | 1.76 | 1.55      |        |         |
| Total                         | 435 | 0   | 8   | 1.72 | 1.48      |        |         |
| Number of persons living at   |     |     |     |      |           | 7 87   | 0.000   |
| home                          |     |     |     |      |           | 1.07   | 0.000   |
| 1- No postpartum depression   | 112 | 2   | 15  | 6.25 | 3.05      |        |         |
| 2- possible postpartum        | 81  | 1   | 15  | 5.62 | 2 70      |        |         |
| depression                    | 01  | 1   | 15  | 5.02 | 2.70      |        |         |
| 3- high postpartum depression | 239 | 1   | 30  | 7.38 | 4.36      |        |         |
| Total                         | 432 | 1   | 30  | 6.75 | 3.84      |        |         |

 Table (4.39) Shows if Number of male/ female children for women at the sample according to level of post partum depression

Figure (4.39) Shows if Number of male/ female children for women at the sample according to level of post partum depression





For if the husband is married to another women, there were no statistical significant relation (p-value>0.05). For example, 1.8% of the women who do not suffer of postpartum depression have husbands married to another woman, while 7.4% of the women who suffer of possible postpartum depression have husbands married to another woman, and 7.5% of the women who suffer of high postpartum depression have husbands married to another woman.

Thus women having a husband whose married to another woman or not, both have quevalent postpartum depression levels.

 Table (4.40) Shows if the husband is marring another woman for women at the sample according to level of post partum depression

|           |               | LEVE       | LEVEL OF POSTPARTUM |            |        |  |  |  |
|-----------|---------------|------------|---------------------|------------|--------|--|--|--|
| The husba | nd is marring |            | DEPRESSION          |            |        |  |  |  |
| anoth     |               | No         | possible            | high       | 20002  |  |  |  |
| anotn     | another women |            | postpartum          | postpartum |        |  |  |  |
|           |               | depression | depression          | depression |        |  |  |  |
| Yes       | Count         | 2          | 6                   | 18         | 26     |  |  |  |
|           | %             | 1.8%       | 7.4%                | 7.5%       | 6.0%   |  |  |  |
| No        | Count         | 111        | 75                  | 223        | 409    |  |  |  |
|           | %             | 98.2%      | 92.6%               | 92.5%      | 94.0%  |  |  |  |
| Total     | Count         | 113        | 81                  | 241        | 435    |  |  |  |
|           | %             | 100.0%     | 100.0%              | 100.0%     | 100.0% |  |  |  |

Chi-square= 4.8 p-value>0.05

For the order in wife's, 94.3% of the women who do not suffer of postpartum depression are the first wives, while 76.7% of the women suffering of possible postpartum depression are the first wives, and 85.4% of the women suffering postpartum depression are the first wives.

This shows that for the order in wife's, there were no statistical significant relation (p-value>0.05), so women with all orders of marriages have quevalent postpartum depression levels.



|                   |                            | LEVE       | LEVEL OF POSTPARTUM |            |        |  |  |
|-------------------|----------------------------|------------|---------------------|------------|--------|--|--|
| If yes, the order | in wife's                  |            | DEPRESSION          |            |        |  |  |
| If yes, the order | If yes, the order in whe s |            | possible            | high       | Total  |  |  |
|                   |                            | postpartum | postpartum          | postpartum |        |  |  |
|                   |                            | depression | depression          | depression |        |  |  |
| The first         | Count                      | 33         | 23                  | 88         | 144    |  |  |
|                   | %                          | 94.3%      | 76.7%               | 85.4%      | 85.7%  |  |  |
| the second        | Count                      | 2          | 6                   | 15         | 23     |  |  |
|                   | %                          | 5.7%       | 20.0%               | 14.6%      | 13.7%  |  |  |
| more              | Count                      | 0          | 1                   | 0          | 1      |  |  |
|                   | %                          | 0.0%       | 3.3%                | 0.0%       | 0.6%   |  |  |
| Total             | Count                      | 35         | 30                  | 103        | 168    |  |  |
|                   | %                          | 100.0%     | 100.0%              | 100.0%     | 100.0% |  |  |

Table (4.41) shows the order in wives according to level of post partum depression

Chi-square= 7.7 p-value>0.05

For the number of woman marriages, there were no statistical significant relation (p-value>0.05), so women with numbers of marriages have quevalent postpartum depression levels, in which 96.1% of the women who do not suffer of postpartum depression are married for the first time, while 96.1% of the women who suffer of possible postpartum depression are married for the first time, and 91.4% of the women who suffer of high postpartum depression are married for the first time.

 Table (4.42) Shows Number of woman marriages for women at the sample according to level of post partum depression

|                 |                           | LEVEL OF PO | EPRESSION  |            |        |
|-----------------|---------------------------|-------------|------------|------------|--------|
| Number of woman | Number of woman marriages |             | possible   | high       | Total  |
|                 |                           | depression  | postpartum | postpartum |        |
|                 |                           |             | depression | depression |        |
| The first       | Count                     | 73          | 49         | 139        | 261    |
|                 | %                         | 96.1%       | 96.1%      | 91.4%      | 93.5%  |
| the second      | Count                     | 3           | 2          | 13         | 18     |
|                 | %                         | 3.9%        | 3.9%       | 8.6%       | 6.5%   |
| Total Count     |                           | 76          | 51         | 152        | 279    |
|                 | %                         | 100.0%      | 100.0%     | 100.0%     | 100.0% |

Chi-square= 2.4 p-value>0.05



## The Healthy Dimension and the Post Partum Depression:

2- There are no statistical significant differences ( $\alpha$ =0.05) in the degrees of postpartum depression of women in Gaza strip who recently delivered related to the Healthy Dimension variables:

To test the truenerss of the hypothese, the researcher calculated the values of chi-square tests for the relation of postpartum depression levels and each of the Healthy Dimension variables, as shown at the following tables:

For having Reason of hospital admissions at the past, there were no statistical significant relation (p-value>0.05), so women having previous hospital admissions or not, both have quevalent postpartum depression levels.

For example, 31.3% of the women who do not suffer of postpartum depression have previous hopsital admissions, while 32.1% of the women who suffer of possible postpartum depression have previous hospital admissions, 35% of the women who suffer of high postpartum depression have previous hospital admissions.

 Table (4.43) Shows having Reason of hospital admissions at the past for women at

 the sample according to level of post partum depression

|                     |           | LEVE       | LEVEL OF POSTPARTUM |            |        |  |  |  |
|---------------------|-----------|------------|---------------------|------------|--------|--|--|--|
| Having              | previous  |            | DEPRESSION          |            |        |  |  |  |
| hosnital            | dmissions | No         | possible            | high       | 1000   |  |  |  |
| nospital admissions |           | postpartum | postpartum          | postpartum |        |  |  |  |
|                     |           | depression | depression          | depression |        |  |  |  |
| yes                 | Count     | 35         | 26                  | 83         | 144    |  |  |  |
|                     | %         | 31.3%      | 32.1%               | 35.0%      | 33.5%  |  |  |  |
| no                  | Count     | 77         | 55                  | 154        | 286    |  |  |  |
|                     | %         | 68.8%      | 67.9%               | 65.0%      | 66.5%  |  |  |  |
| Total               | Count     | 112        | 81                  | 237        | 430    |  |  |  |
|                     | %         | 100.0%     | 100.0%              | 100.0%     | 100.0% |  |  |  |

Chi-square= 0.57 p-value>0.05

For whether the women had a surgical operation at the past, the results show that 21.2% of the women who do not suffer of postpartum depression have previous surgical operations, while 22% of the women who suffer of possible postpartum depression



have previous surgical operations, and 30.3% of the women who suffer of high postpartum depression have previous surgical operations in the past.

Thus there were no statistical significant relation (Chi-sq= 4.21,p-value>0.05) for the women having surgical operations in the past, so women having previous surgical operation or not, both have quevalent postpartum depression levels.

Table (4.44) shows having surgical operation at the past for women at the sample according to level of post partum depression

|           |               | LEVE                           |                                      |                                  |        |  |  |  |
|-----------|---------------|--------------------------------|--------------------------------------|----------------------------------|--------|--|--|--|
| Having    | g surgical    |                                | DEPRESSION                           |                                  |        |  |  |  |
| operation | n at the past | No<br>postpartum<br>depression | possible<br>postpartum<br>depression | high<br>postpartum<br>depression | -      |  |  |  |
| yes       | Count         | 24                             | 18                                   | 72                               | 114    |  |  |  |
|           | %             | 21.2%                          | 22.0%                                | 30.3%                            | 26.3%  |  |  |  |
| no        | Count         | 89                             | 64                                   | 166                              | 319    |  |  |  |
|           | %             | 78.8%                          | 78.0%                                | 69.7%                            | 73.7%  |  |  |  |
| Total     | Count         | 113                            | 82                                   | 238                              | 433    |  |  |  |
|           | %             | 100.0%                         | 100.0%                               | 100.0%                           | 100.0% |  |  |  |

Chi-Square = 4.21, p-value>0.05

For Suffering from Menstruation disturbance before pregnancy, there were statistical significant relation (Chi-sq= 10.3, p-value>0.05), in which only 19.3% of the women who do not suffer of postpartum depression have suffered from menustration disturbance before pregnancy, and only 18.8% of the women who suffer of possible postpartum depression have suffered from menustration disturbance before pregnancy, while 32.8% of the women who suffer of high postpartum depression have suffered from menustration disturbance before pregnancy.



|          |                         | LEVE       | LEVEL OF POSTPARTUM |            |        |  |  |
|----------|-------------------------|------------|---------------------|------------|--------|--|--|
| S        | Suffering from          |            | DEPRESSION          |            |        |  |  |
| Menstrua | tion disturbance before | No         | possible            | high       | Iotui  |  |  |
|          | pregnancy               | postpartum | postpartum          | postpartum |        |  |  |
|          |                         | depression | depression          | depression |        |  |  |
| yes      | Count                   | 22         | 15                  | 79         | 116    |  |  |
|          | %                       | 19.3%      | 18.8%               | 32.8%      | 26.7%  |  |  |
| No       | Count                   | 92         | 65                  | 162        | 319    |  |  |
|          | %                       | 80.7%      | 81.3%               | 67.2%      | 73.3%  |  |  |
| Total    | Count                   | 114        | 80                  | 241        | 435    |  |  |
|          | %                       | 100.0%     | 100.0%              | 100.0%     | 100.0% |  |  |

Table (4.45) shows suffering from menstruation disturbance before pregnancy for women at the sample according to level of post partum depression

Chi-sq= 10.3 p-value<0.01

Figure (4.45) Shows Suffering from Menstruation disturbance before pregnancy for women at the sample according to level of post partum depression



For Suffering from Psychiatric problems before period time, the results show that most of the woman suffering from high postpartum depression suffering frompsychological problemes, 23.6% suffer of headaches, 23.6% suffer of constant abdominal pain, 20.9% suffer from anexiety, 8.6% suffer from desire to speak for a long time, 6.8% suffer from a sense of fear, and 16.4% of the woman with high postpartum depression suffer from all of the mentioned psychatric problem before period time.

This indicates that there were statistical significant relation (Chi-sq= 23.4, p-value<0.05), in which most of the women having high postpartum depression had suffered from headeach and concstantly abdominal pain, while most of the women



having possible / no postpartum depression had suffered from anixiety and concstantly abdominal pain

 Table (4.46) shows psychiatric problems before period time for women at the sample according to level of post partum depression

|                                     |          | LEVE       | L OF POSTPA | RTUM       |        |
|-------------------------------------|----------|------------|-------------|------------|--------|
|                                     |          |            | DEPRESSION  |            | Total  |
| Psychiatric problems befor          | e period | No         | possible    | high       | Total  |
| time                                |          | postpartum | postpartum  | postpartum |        |
|                                     |          | depression | depression  | depression |        |
| Headache                            | Count    | 16         | 16          | 52         | 84     |
|                                     | %        | 19.3%      | 22.5%       | 23.6%      | 22.5%  |
| Anxiety                             | Count    | 27         | 23          | 46         | 96     |
|                                     | %        | 32.5%      | 32.4%       | 20.9%      | 25.7%  |
| Sense of fear                       | Count    | 1          | 7           | 15         | 23     |
|                                     | %        | 1.2%       | 9.9%        | 6.8%       | 6.1%   |
| Desire of speak for a long<br>times | Count    | 7          | 3           | 19         | 29     |
|                                     | %        | 8.4%       | 4.2%        | 8.6%       | 7.8%   |
| constantly abdominal pain           | Count    | 26         | 20          | 52         | 98     |
|                                     | %        | 31.3%      | 28.2%       | 23.6%      | 26.2%  |
| All of the above                    | Count    | 6          | 2           | 36         | 44     |
|                                     | %        | 7.2%       | 2.8%        | 16.4%      | 11.8%  |
| Total                               | Count    | Count      | 71          | 220        | 374    |
|                                     | %        | %          | 100.0%      | 100.0%     | 100.0% |

Chi-sq= 23.4 p-value<0.01







For Suffering from Psychological problems at the past, there were no statistical significant relation (Chi-sq= 6.2,p-value>0.05), so women Suffering from Psychological problems at the past or not, both have quevalent postpartum depression levels.

For example. 1.8% of the women who do not suffer of postpartum depression has suffered from pyshological problems at the past, while 4.9% of the women who suffer of possible postpartum depression has suffered from pyshological problems at the past, and only 8.4% of the women who suffer of high postpartum depression has suffered from pyshological problems at the past.

 Table (4.47) shows suffering from psychological problems at the past for women at

 the sample according to level of post partum depression

|            |                 | LEVE       | LEVEL OF POSTPARTUM |            |        |  |  |  |
|------------|-----------------|------------|---------------------|------------|--------|--|--|--|
| Suffering  | g from          |            | DEPRESSION          |            | Total  |  |  |  |
| Psycholo   | ogical problems | No         | possible            | high       | Total  |  |  |  |
| at the pas | st              | postpartum | postpartum          | postpartum |        |  |  |  |
|            |                 | depression | depression          | depression |        |  |  |  |
| yes        | Count           | 2          | 4                   | 20         | 26     |  |  |  |
|            | %               | 1.8%       | 4.9%                | 8.4%       | 6.0%   |  |  |  |
| No         | Count           | 112        | 78                  | 219        | 409    |  |  |  |
|            | %               | 98.2%      | 95.1%               | 91.6%      | 94.0%  |  |  |  |
| Total      | Count           | 114        | 82                  | 239        | 435    |  |  |  |
|            | %               | 100.0%     | 100.0%              | 100.0%     | 100.0% |  |  |  |

Chi-sq= 6.2 p-value<0.05

Figure (4.47) shows suffering from psychological problems at the past for women at the sample according to level of post partum depression





For Suffering from anemia at the past, there were statistical significant relation (Chi-sq= 6.2, p-value<0.05), in which only 26.3% of the women who do not suffer from postpartum depression have suffered from anemia in the past, while 20.7% of the women who suffer from possible postpartum depression have suffered from anemia in the past, and only 36.7% of the women who suffer from high postpartum depression have suffered from anemia in the past.

 Table (4.48) shows suffering from anemia at the past for women at the sample according to level of post partum depression

|                     |          | LEVE       | LEVEL OF POSTPARTUM |            |        |  |  |  |
|---------------------|----------|------------|---------------------|------------|--------|--|--|--|
| Suffering from      |          |            | DEPRESSION          |            |        |  |  |  |
| onoomio of          | the next | No         | possible            | high       | Total  |  |  |  |
| anaenna at the past |          | postpartum | postpartum          | postpartum |        |  |  |  |
|                     |          | depression | depression          | depression |        |  |  |  |
| yes Cou             | unt      | 30         | 17                  | 88         | 135    |  |  |  |
| %                   |          | 26.3%      | 20.7%               | 36.7%      | 31.0%  |  |  |  |
| No Cou              | unt      | 84         | 65                  | 152        | 301    |  |  |  |
| %                   |          | 73.7%      | 79.3%               | 63.3%      | 69.0%  |  |  |  |
| Total Cou           | unt      | 114        | 82                  | 240        | 436    |  |  |  |
| %                   |          | 100.0%     | 100.0%              | 100.0%     | 100.0% |  |  |  |

Chi-sq= 8.8 p-value<0.05

Figure (4.48) Shows suffering from anemia at the past for women at the sample according to LEVEL OF POSTPARTUM DEPRESSION



For blood HB, there were no statistical significant relation (p-value>0.05), women Suffering from high postpartum depression having the least HB Blood values,



with a mean of 8.96, while women with no postpartum depression have the most HB Blood values, with mean of 9.25.

| Table (4 | 4.49) She | ows HB  | for women | suffering | from anemia | at the past | according to |
|----------|-----------|---------|-----------|-----------|-------------|-------------|--------------|
| level of | post par  | tum dep | ression   |           |             |             |              |

| If yos, specify HR             | N   | Moon  | Std.      |       |       |
|--------------------------------|-----|-------|-----------|-------|-------|
| n yes, specny mb               |     | wiean | Deviation | F     | Sig.  |
| No postpartum depression       | 36  | 9.25  | 0.988     | 0.781 | 0.460 |
| possible postpartum depression | 18  | 9.10  | 1.066     |       |       |
| high postpartum depression     | 82  | 8.96  | 1.297     |       |       |
| Total                          | 136 | 9.05  | 1.192     | -     | -     |

For Suffering from psychological disorders at the family history, there were statistical significant relation (Chi-sq= 6.7, p-value<0.05).

The results that that only a small percentage of women in all levels of postpartum depression have psychological disorders at the family history, in which only 1.8% of women who do not have postpartum depression have any psychological disorders at the family history, while 2.4% of the women who have possible postpartum depression have not any psychological disorders at the family history, and 7.6% of women suffer of high postpartum depression have psychological disorders at the family history.

| Table (4.50) shows the psychological disorders at the family history for w | omen at |
|--|---------|
| the sample according to level of post partum depression                    |         |

| Are th        | ere any  | LEVE       | RTUM       |            |        |
|---------------|----------|------------|------------|------------|--------|
| psych         | ological |            | DEPRESSION |            |        |
| diso          | rders    | No         | possible   | high       | Total  |
| at the family |          | postpartum | postpartum | postpartum |        |
| history       |          | depression | depression | depression |        |
| yes           | Count    | 2          | 2          | 18         | 22     |
|               | %        | 1.8%       | 2.4%       | 7.6%       | 5.1%   |
| No            | Count    | 109        | 80         | 219        | 408    |
|               | %        | 98.2%      | 97.6%      | 92.4%      | 94.9%  |
| Total         | Count    | 111        | 82         | 237        | 430    |
|               | %        | 100.0%     | 100.0%     | 100.0%     | 100.0% |

Chi-sq= 6.7 p-value<0.05



Figure (4.50) shows psychological disorders at the family history for women at the sample according to level of post partum depression



## The health situation and post partum depression:

3- There are no statistical significant differences ( $\alpha$ =0.05) in the degrees of postpartum depression of women in Gaza strip who recently delivered related to the healthy situation variables:

To test the truenerss of the hypothese, the researcher calculated the values of chi-square tests for the relation of postpartum depression levels and each of the Healthy Situation variables, as shown at the following tables:

For how was the last delivery of women, there were no statistical significant relation (p-value>0.05), so women having delivery with both ways, have quevalent postpartum depression levels. For example, most of the women with no postpartum depression had their last delivery normally, with a percentage of 85.6%, most of the women with possible postpartum depression had their last delivery normally, with a percentage of 84.8%, and the most of the women with high postpartum depression had their last delivery normally, with a percentage of 76.2%.



 Table (4.51) shows how was last delivery of women at the sample according to level of post partum depression

|          |        | LEVE       |            |            |        |
|----------|--------|------------|------------|------------|--------|
| Ho       | W      |            | DEPRESSION |            |        |
| was th   | e last | No         | possible   | high       | Total  |
| delivery |        | postpartum | postpartum | postpartum |        |
|          |        | depression | depression | depression |        |
| Norma    | Count  | 95         | 67         | 176        | 338    |
| 1        | %      | 85.6%      | 84.8%      | 76.2%      | 80.3%  |
|          | Count  | 16         | 12         | 55         | 83     |
| C.5      | %      | 14.4%      | 15.2%      | 23.8%      | 19.7%  |
| Total    | Count  | 111        | 79         | 231        | 421    |
| TUtal    | %      | 100.0%     | 100.0%     | 100.0%     | 100.0% |

Chi-square= 5.4, p-value>0.05

For the women evalutation of the last delivery, there were statistical significant relation (Chi-square= 8.1, p-value<0.05), most of the women with no postpartum depression had easy deliveries, with a percentage of 63.3%, while women with possible postpartum depression and high postpartum depression had close percentages for easy and hard deliveries, with almost 47% of deliveries are easy and 53% are hard deliveries.

|             | LEVE       | LEVEL OF POSTPARTUM |            |        |  |  |  |  |
|-------------|------------|---------------------|------------|--------|--|--|--|--|
| How do you  |            | DEPRESSION          | ſ          | Total  |  |  |  |  |
| evaluate it | No         | possible            | high       | 10001  |  |  |  |  |
|             | postpartum | postpartum          | postpartum |        |  |  |  |  |
|             | depression | depression          | depression |        |  |  |  |  |
| Easy Count  | 62         | 31                  | 97         | 190    |  |  |  |  |
| %           | 63.3%      | 47.0%               | 46.4%      | 50.9%  |  |  |  |  |
| Hard Count  | 36         | 35                  | 112        | 183    |  |  |  |  |
| %           | 36.7%      | 53.0%               | 53.6%      | 49.1%  |  |  |  |  |
| Total Count | 98         | 66                  | 209        | 373    |  |  |  |  |
| %           | 100.0%     | 100.0%              | 100.0%     | 100.0% |  |  |  |  |

 Table (4.52) shows evaluation of the last delivery of women at the sample according to level of post partum depression

Chi-square= 8.1, p-value<0.05



Figure (4.52) shows evaluation of the last delivery of women at the sample according to level of post partum depression



For the location of the last delivery, there were no statistical significant relation (Chi-square= 3.4, p-value<0.05), so women with any level of postpartum depression have the same locations of delivery.

The results show that 89.3% of the women with high postpartum depression had their last deliveries at the hospital, while only 10.7% had their deliveries in a private clinic.

 Table (4.53) shows where was the last delivery of women at the sample according to level of post partum depression

|                   |              | LEVE       |            |            |        |
|-------------------|--------------|------------|------------|------------|--------|
|                   |              |            | DEPRESSION |            |        |
| Where was you la  | ast delivery | No         | possible   | high       | Total  |
|                   |              | postpartum | postpartum | postpartum |        |
|                   |              | depression | depression | depression |        |
| Hospital          | Count        | 92         | 68         | 208        | 368    |
|                   | %            | 82.1%      | 86.1%      | 89.3%      | 86.8%  |
| Private<br>Clinic | Count        | 20         | 11         | 25         | 56     |
|                   | %            | 17.9%      | 13.9%      | 10.7%      | 13.2%  |
| Total             | Count        | 112        | 79         | 233        | 424    |
|                   | %            | 100.0%     | 100.0%     | 100.0%     | 100.0% |

Chi-square= 3.4, p-value>0.05



Regarding suffering from diseases in their last pregnancy, there were statistical significant relation (Chi-square= 38.6, p-value<0.001), in which women with high postpartum depression suffered more diseases than those with no or possible postpartum depression, in which 25.6% suffered of pain the back and feet, 16.5% suffered of recurring inflammation in the urine,14% suffered of high blood pressure, 8.7% suffered of severe stomach pain, 5.8% of women with high postpartum depression suffered from diabetes, 3.3% suffered of heart diseases, 1.2% suffered of hepatitis, while 21% suffered of other diseases and 22.7% didn't suffer from any disease.

| I 8 I                               | •      | -          |            |            |        |
|-------------------------------------|--------|------------|------------|------------|--------|
|                                     |        | LEVEL      | OF POSTPA  | RTUM       |        |
| Suffering from discoses in th       | last   | D          |            |            |        |
| Suffering from diseases in the      | e last | No         | possible   | high       | Total  |
| pregnancy                           |        | postpartum | postpartum | postpartum |        |
|                                     |        | depression | depression | depression |        |
| Diabetes                            | Count  | 3          | 0          | 14         | 17     |
|                                     | %      | 2.6%       | 0.0%       | 5.8%       | 3.9%   |
| High blood pressure                 | Count  | 12         | 11         | 34         | 57     |
|                                     | %      | 10.5%      | 13.4%      | 14.0%      | 13.0%  |
| Heart disease                       | Count  | 2          | 0          | 8          | 10     |
|                                     | %      | 1.8%       | 0.0%       | 3.3%       | 2.3%   |
| Hepatitis                           | Count  | 0          | 1          | 3          | 4      |
|                                     | %      | 0.0%       | 1.2%       | 1.2%       | 0.9%   |
| Recurring inflammation in the urine | Count  | 18         | 11         | 40         | 69     |
|                                     | %      | 15.8%      | 13.4%      | 16.5%      | 15.8%  |
| Pain in the back and feet           | Count  | 20         | 24         | 62         | 106    |
|                                     | %      | 17.5%      | 29.3%      | 25.6%      | 24.2%  |
| Severe stomach pain                 | Count  | 2          | 7          | 21         | 30     |
|                                     | %      | 1.8%       | 8.5%       | 8.7%       | 6.8%   |
| Other diseases                      | Count  | 1          | 2          | 5          | 8      |
|                                     | %      | 0.9%       | 2.4%       | 2.1%       | 1.8%   |
| Nothing                             | Count  | 56         | 26         | 55         | 137    |
|                                     | %      | 49.1%      | 31.7%      | 22.7%      | 31.3%  |
| Total                               | Count  | 114        | 82         | 242        | 438    |
|                                     | %      | 100.0%     | 100.0%     | 100.0%     | 100.0% |

Table (4.54) Shows suffering from diseases in the last pregnancy of women at the sample according to level of post partum depression

Chi-square= 38.6, p-value<0.001



Figure (4.54) shows suffering from diseases in the last pregnancy of women at the sample according to level of post partum depression



For the Suffering from psychological problems througy this pregnancy, there were statistical significant relation (Chi-square= 5.5, p-value<0.05).

Regarding the problem of sense of fear, 53.4% of women with high postpartum depression suffer of continual fear, and 46.6% suffer of intermittent fear.

For the problem of anxiety, 49.7% of women with high postpartum depression suffer of continual anxiety, and 50.3% suffer of intermittent anxiety.

43.8% of the women with high postpartum depression suffer of continual insonomia, while 56.3% suffer of intermittent insomonia.

Finnaly, most of the women with high postpartum depression and suffer of lose of appetite are intermittent, with a percentage of 63.3%, while only 36.7% suffer of continual lose of appetite.

Generally speaking, women having high postpartum depression were the highest suffering from all psychological problems, while women having no postpartum depression were the least suffering from psychological problems in the last pregnancy.



|  |                    | LEVEL                          | OF POSTPA  | ARTUM                            | -<br>-   |                |             |
|--|--------------------|--------------------------------|--|----------------------------------|----------|----------------|-------------|
|  |                    | Ľ                              | DEPRESSIO  | N                                |          |                |             |
| Have you suffere<br>from the followin<br>psychological pro | ed<br>ng<br>oblems | No<br>postpartum<br>depression | possible<br>existence of<br>postpartum<br>depression | high<br>postpartum<br>depression | Total    | Chi-<br>square | p-<br>value |
| Sense of Fear  |                    |                                |  |                                  |          | 20.6           | < 0.001     |
| continual  | Count              | 11                             | 15   | 94                               | 120      |                |             |
|  | %                  | 20.4%                          | 33.3%  | 53.4%                            | 43.6%    |                |             |
| Intermittent   | Count              | 43                             | 30   | 82                               | 155      |                |             |
|  | %                  | 79.6%                          | 66.7%  | 46.6%                            | 56.4%    |                |             |
| Total  | Count              | 54                             | 45   | 176                              | 275      |                |             |
|  | %                  | 100.0%                         | 100.0%   | 100.0%                           | 100.0%   |                |             |
| Anxiety  |                    |                                |  |                                  | I        | 6.8            | <0.05       |
| continual  | Count              | 18                             | 17   | 81                               | 116      |                |             |
|  | %                  | 31.0%                          | 37.8%  | 49.7%                            | 43.6%    |                |             |
| Intermittent   | Count              | 40                             | 28   | 82                               | 150      |                |             |
|  | %                  | 69.0%                          | 62.2%  | 50.3%                            | 56.4%    |                |             |
| Total  | Count              | 58                             | 45   | 163                              | 266      |                |             |
|  | %                  | 100.0%                         | 100.0%   | 100.0%                           | 100.0%   |                |             |
| Insomnia   | -                  | •                              | -  | 1                                | <u>.</u> | 5.6            | <0.05       |
| continual  | Count              | 10                             | 8  | 56                               | 74       |                |             |
|  | %                  | 27.8%                          | 25.0%  | 43.8%                            | 37.8%    |                |             |
| Intermittent   | Count              | 26                             | 24   | 72                               | 122      |                |             |
|  | %                  | 72.2%                          | 75.0%  | 56.3%                            | 62.2%    |                |             |
| Total  | Count              | 36                             | 32   | 128                              | 196      |                |             |
|  | %                  | 100.0%                         | 100.0%   | 100.0%                           | 100.0%   |                |             |
| Losing of app  | etite              |                                |  |                                  |          | 7.9,           | <0.05       |
| continual  | Count              | 6                              | 13   | 40                               | 59       |                |             |
|  | %                  | 14.3%                          | 39.4%  | 36.7%                            | 32.1%    |                |             |
| Intermittent   | Count              | 36                             | 20   | 69                               | 125      |                |             |
|  | %                  | 85.7%                          | 60.6%  | 63.3%                            | 67.9%    |                |             |
| Total  | Count              | 42                             | 33   | 109                              | 184      |                |             |
|  | %                  | 100.0%                         | 100.0%   | 100.0%                           | 100.0%   |                |             |

Table (4.55) shows psychological problems that women at the sample have according to level of post partum depression



Figure (4.55) shows psychological problems that women at the sample have according to level of post partum depression



There were no statistical significant relation (p-value<0.05) to whether the woman have or havent done the ultrasoung during her last pregnancy, so women with any level of postpartum depression done the ultrasound the same during the last pregnancy. For example, women who have the ultrasound in their last pregnancy reached up to 78.8% of the women with no postpartum depression, 77.2% of those with possible postpartum depression, and 80.4% of those women with high postpartum depression.

 Table (4.56) shows if women at the sample have done the ultrasound during the last pregnancy according to level of post partum depression

|                              |                           | LEVE       |            |            |        |  |  |
|------------------------------|---------------------------|------------|------------|------------|--------|--|--|
| Have you done the ultresound |                           |            | DEPRESSION |            |        |  |  |
| during                       | during the last pregnancy |            | possible   | high       | Iotai  |  |  |
| uuring                       |                           |            | postpartum | postpartum |        |  |  |
|                              |                           | depression | depression | depression |        |  |  |
| yes                          | Count                     | 89         | 61         | 193        | 343    |  |  |
|                              | %                         | 78.8%      | 77.2%      | 80.4%      | 79.4%  |  |  |
| No                           | Count                     | 24         | 18         | 47         | 89     |  |  |
|                              | %                         | 21.2%      | 22.8%      | 19.6%      | 20.6%  |  |  |
| Total                        | Count                     | 113        | 79         | 240        | 432    |  |  |
|                              | %                         | 100.0%     | 100.0%     | 100.0%     | 100.0% |  |  |

Chi-square= 0.4, p-value>0.05

For asking about Fetal sex during the last pregnancy, there were no statistical significant relation (p-value<0.05), so women with any level of postpartum depression asked the same about Fetal sex during the last pregnancy.



The results show that the women who asked about the fetal sex reached up to 70.3% of the women with no postpartum depression, 74% of women with possible postpartum depression, and 71.9% of the women with high postpartum depression.

| Table (4.57) Shows if women a   | at the sample w | vere asking al | bout Fetal sex | x according |
|---------------------------------|-----------------|----------------|----------------|-------------|
| to level of post partum depress | sion            |                |                |             |

|                           |       | LEVEI            |            |            |        |  |
|---------------------------|-------|------------------|------------|------------|--------|--|
| Asking about<br>Fetal sex |       | ]                | Total      |            |        |  |
|                           |       | No possible high |            | high       | Total  |  |
|                           |       | Postpartum       | postpartum | postpartum |        |  |
|                           |       | depression       | depression | depression |        |  |
| Ye<br>s                   | Count | 78               | 57         | 166        | 301    |  |
|                           | %     | 70.3%            | 74.0%      | 71.9%      | 71.8%  |  |
| No                        | Count | 33               | 20         | 65         | 118    |  |
|                           | %     | 29.7%            | 26.0%      | 28.1%      | 28.2%  |  |
| Total                     | Count | 111              | 77         | 231        | 419    |  |
|                           | %     | 100.0%           | 100.0%     | 100.0%     | 100.0% |  |

Chi-square= 0.37, p-value>0.05

The results also showed that there were statistical significant relation (Chisquare= 12.7, p-value<0.01) to whether the women were worried beause of the ultrasound, in which most of the women in the sample with all levels of to post partum depressionwere not worried because of the ultra sound, reaching up to 79.5% of the women with no postpartum depression, 81.8% of women with possible postpartum depression and 64.8% of women with high postpartum depression.



|                                  |                          | LEVEL      | OF PO      | STPARTUM   |        |
|----------------------------------|--------------------------|------------|------------|------------|--------|
| Ware you worried because of the  |                          | DEPRESSIO  | Total      |            |        |
| where you worried because of the | a worried because of the | No         | possible   | high       | Iotui  |
|                                  |                          | postpartum | postpartum | postpartum |        |
|                                  |                          | depression | depression | depression |        |
| yes                              | Count                    | 23         | 14         | 83         | 120    |
|                                  | %                        | 20.5%      | 18.2%      | 35.2%      | 28.2%  |
| No                               | Count                    | 89         | 63         | 153        | 305    |
|                                  | %                        | 79.5%      | 81.8%      | 64.8%      | 71.8%  |
| Total                            | Count                    | 112        | 77         | 236        | 425    |
|                                  | %                        | 100.0%     | 100.0%     | 100.0%     | 100.0% |

 Table (4.58) shows if women at the sample were worried because of the ultra sound according to level of post partum depression

Chi-square= 12.7 p-value<0.01

Figure (4.58) Shows if women at the sample were worried because of the ultra sound according to level of post partum depression



Regardding the question of getting mental support services during the last pregnancy, there were no statistical significant relation (p-value>0.05), in which the women that have high postpartum depression or women who don't have had gotten the same mental support services during the last pregnancy.

The results showed that women who received mental support services during the last pregnancy reached up to 26.8% in the women with no postpartum depression, 36.8% of the women with possible postpartum depression and 33.9% of the women with high postpartum depression.



| Did you get mental support services<br>during the last pregnancy |       | LEVE       |            |            |        |
|--|-------|------------|------------|------------|--------|
|  |       |            |            |            |        |
|  |       | No         | possible   | high       | Total  |
|  |       | postpartum | postpartum | postpartum |        |
|  |       | depression | depression | depression |        |
| yes  | Count | 30         | 28         | 81         | 139    |
|  | %     | 26.8%      | 36.8%      | 33.9%      | 32.6%  |
| No   | Count | 82         | 48         | 158        | 288    |
|  | %     | 73.2%      | 63.2%      | 66.1%      | 67.4%  |
| Total  | Count | 112        | 76         | 239        | 427    |
|  | %     | 100.0%     | 100.0%     | 100.0%     | 100.0% |

Table (4.59) shows if women at the sample mental support services during the last pregnancy according to level of post partum depression

Chi-square= 2.5, p-value>0.05

For the women evaluation of the received psychological support services during the last pregnancy, there were statistical significant relation (Chi-square= 12.3, p-value<0.01), in which most of the women in the sample with all levels of post partum depression had evaluated the received mental support services as good, reaching up to 91.7% of the women with no postpartum depression, 97.4% of the women with possible postpartum depression and 76.6% of the women with high postpartum depression.

 Table (4.60) shows how women evaluate the mental support services received during

 their last pregnancy, according to level of post partum depression

|                    |       | LEVE       |            |            |        |
|--------------------|-------|------------|------------|------------|--------|
| If yes, how was it |       |            | Total      |            |        |
|                    |       | No         | possible   | high       | Total  |
|                    |       | postpartum | postpartum | postpartum |        |
|                    |       | depression | depression | depression |        |
| Good               | Count | 44         | 37         | 108        | 189    |
|                    | %     | 91.7%      | 97.4%      | 76.6%      | 83.3%  |
| Not<br>good        | Count | 4          | 1          | 33         | 38     |
|                    | %     | 8.3%       | 2.6%       | 23.4%      | 16.7%  |
| Total              | Count | 48         | 38         | 141        | 227    |
|                    | %     | 100.0%     | 100.0%     | 100.0%     | 100.0% |

Chi-square= 12.3, p-value<0.01





Figure (4.60) shows if women at the sample have Problems were faced during the previous pregnancies according to level of post partum depression

The results showed that regarding the problems faced during the previous pregnancies, there were no statistical significant relation (p-value>0.05), so the women that have high postpartum depression or women who don't have faced the same problems during the previous pregnancies.

For women with high postpartum depression, 23.4% had miscarriages, 8.4% had bleeding after birth, 4.2% had low weight baby, 2.5% had their child dying in the uterus, 1.7% had dead child peinatal, 0.8% had bleeding during pregnancy, 0.4% had baby with genetic disease, while 58.6% didn't face any problem.



|                            | LEVE    |            |            |            |        |
|----------------------------|---------|------------|------------|------------|--------|
| Problems were faced        |         |            |            |            |        |
|                            |         | No         | possible   | high       | Total  |
| during the previous pregna | alicies | postpartum | postpartum | postpartum |        |
|                            |         | depression | depression | depression |        |
| Miscarriage                | Count   | 24         | 15         | 56         | 95     |
|                            | %       | 21.1%      | 18.5%      | 23.4%      | 21.9%  |
| child dies in the uterus   | Count   | 1          | 1          | 6          | 8      |
|                            | %       | 0.9%       | 1.2%       | 2.5%       | 1.8%   |
| low weight baby            | Count   | 6          | 0          | 10         | 16     |
|                            | %       | 5.3%       | 0.0%       | 4.2%       | 3.7%   |
| baby with genetic disease  | Count   | 0          | 1          | 1          | 2      |
|                            | %       | 0.0%       | 1.2%       | 0.4%       | 0.5%   |
| dead child perinatal       | Count   | 2          | 2          | 4          | 8      |
|                            | %       | 1.8%       | 2.5%       | 1.7%       | 1.8%   |
| Bleeding during pregnancy  | Count   | 2          | 0          | 2          | 4      |
|                            | %       | 1.8%       | 0.0%       | 0.8%       | 0.9%   |
| Bleeding after childbirth  | Count   | 2          | 5          | 20         | 27     |
|                            | %       | 1.8%       | 6.2%       | 8.4%       | 6.2%   |
| Nothing                    | Count   | 77         | 57         | 140        | 274    |
|                            | %       | 67.5%      | 70.4%      | 58.6%      | 63.1%  |
| Total                      | Count   | 114        | 81         | 239        | 434    |
|                            | %       | 100.0%     | 100.0%     | 100.0%     | 100.0% |

Table (4.61) shows if women at the sample have Problems were faced during the previous pregnancies according to level of post partum depression

Chi-square= 16.6, p-value>0.05

For Delivering a baby with an organic diseases, there were no statistical significant relation (p-value>0.05), so the women that have high postpartum depression or women who don't had equivalent rates of Delivering babies with an organic diseases. The results showed that women who delivered a baby with an organic disease were only 5.6% of the women with no postpartum depression, 4% of women with possible postpartum depression, and 6.6% of the women with high postpartum depression.


|   |       | LEVE       |            |            |        |
|---|-------|------------|------------|------------|--------|
| Delivering a baby with an organic<br>diseases |       |            | Total      |            |        |
|   |       | No         | possible   | high       | Iotui  |
|   |       | postpartum | postpartum | postpartum |        |
|   |       | depression | depression | depression |        |
| yes   | Count | 6          | 3          | 15         | 24     |
|   | %     | 5.6%       | 4.0%       | 6.6%       | 5.9%   |
| No  | Count | 101        | 72         | 211        | 384    |
|   | %     | 94.4%      | 96.0%      | 93.4%      | 94.1%  |
| Total   | Count | 107        | 75         | 226        | 408    |
|   | %     | 100.0%     | 100.0%     | 100.0%     | 100.0% |

Table (4.62) shows if women at the sample have delivered babies with organic diseases according to level of post partum depression

Chi-square= 0.7, p-value>0.05

For the type of organic diseases for the babies, there were no statistical significant relation (Chi-square= 4.1, p-value>0.05), so the women that have high postpartum depression or women who don't had equevalent rates of organic diseases were in the delivered babies.

For the women with high postpartum depression, the results showed that 31.3% had delivered babies with congential malformations, 25% had delivered a baby with a heart disease, 25% had a baby with kidney disease and only 18.8% had delivered a baby with thalassemia.



|                                      |            | LEVE       | L OF POSTPA | RTUM       |        |
|--------------------------------------|------------|------------|-------------|------------|--------|
|                                      |            | DEPRESSION |             |            |        |
| If yes, what was the disease         | e          | No         | possible    | high       | Total  |
|                                      | postpartum | postpartum | postpartum  |            |        |
|                                      |            | depression | depression  | depression |        |
| Heart disease                        | Count      | 1          | 1           | 4          | 6      |
|                                      | %          | 16.7%      | 50.0%       | 25.0%      | 25.0%  |
| kidney disease                       | Count      | 0          | 0           | 4          | 4      |
|                                      | %          | 0.0%       | 0.0%        | 25.0%      | 16.7%  |
| Thalassemia                          | Count      | 2          | 0           | 3          | 5      |
|                                      | %          | 33.3%      | 0.0%        | 18.8%      | 20.8%  |
| Congenital malformations/<br>anomaly | Count      | 3          | 1           | 5          | 9      |
|                                      | %          | 50.0%      | 50.0%       | 31.3%      | 37.5%  |
| Total                                | Count      | 6          | 2           | 16         | 24     |
|                                      | %          | 100.0%     | 100.0%      | 100.0%     | 100.0% |

Table (4.63) shows women at the sample that have delivered babies with organic diseases according to level of post partum depression

Chi-square= 4.1, p-value>0.05

For received healthcare during pregnancy, there were no statistical significant relation (p-value>0.05), so the women that have high postpartum depression or women who don't had equevalent rates of received healthcare during pregnancy.

For the women with high postpartum depression, the results that 64.6% of the women received medical care during pregnancy from UNRWA clinic, 17.7% receives medical care from private clinics, 8.9% received care from governmental clinics, 5.9% received care from a primary care clinic, 0.8% received care from community institutions and only 2.1% didn't receive any medical care.



| LEVEL OF POSTPARTUM       |        |            |            |            |        |
|---------------------------|--------|------------|------------|------------|--------|
|                           |        |            | Tatal      |            |        |
| where and you rece        | erve   | No         | possible   | high       | Total  |
| nearthcare during preg    | gnancy | postpartum | postpartum | postpartum |        |
|                           |        | depression | depression | depression |        |
| A primary care<br>clinic  | Count  | 2          | 5          | 14         | 21     |
|                           | %      | 1.8%       | 6.2%       | 5.9%       | 4.9%   |
| Governmental              | Count  | 3          | 4          | 21         | 28     |
|                           | %      | 2.7%       | 4.9%       | 8.9%       | 6.5%   |
| Clinic of UNRWA           | Count  | 92         | 53         | 153        | 298    |
|                           | %      | 81.4%      | 65.4%      | 64.6%      | 69.1%  |
| community<br>institutions | Count  | 0          | 0          | 2          | 2      |
|                           | %      | 0.0%       | 0.0%       | 0.8%       | 0.5%   |
| Private clinics           | Count  | 13         | 16         | 42         | 71     |
|                           | %      | 11.5%      | 19.8%      | 17.7%      | 16.5%  |
| Nothing                   | Count  | 3          | 3          | 5          | 11     |
|                           | %      | 2.7%       | 3.7%       | 2.1%       | 2.6%   |
| Total                     | Count  | 113        | 81         | 237        | 431    |
|                           | %      | 100.0%     | 100.0%     | 100.0%     | 100.0% |

 Table (4.64) shows did women at the sample have the medical care during pregnancy according to level of post partum depression

Chi-square= 15.9, p-value>0.05

#### Relation between measurement of pressures and post partum depression:

4- There is no statistical relation ( $\alpha$ =0.05) in the degrees of measurement of pressures and post partum depression for women in Gaza strip who recently delivered:

To figure out the relation between the degrees of Post Partum Depression (EDINBRG measure) and the Pressure measure with its related factors, the researcher calculated Pearson's correlation coefficients of each factor of pressure and the total EDINBURGH measure, as shown at the following Table:



Table (4.65) Shows Pearson's correlation coefficients for each Factor of the measurement (pressure) and the measure of EDINBURGH for postpartum depression

| EDINBUR    | Factors of Drossure           |  |  |  |
|------------|-------------------------------|--|--|--|
| GH         | ractors of rressure           |  |  |  |
| -0.06      | Religious                     |  |  |  |
| -0.42 (**) | Economic, cultural and social |  |  |  |
| -0.42(**)  | Psychological                 |  |  |  |
| -0.24(**)  | Professional and political    |  |  |  |
| -0.393(**) | Total pressures               |  |  |  |

(\*\*) Correlation is significant at the 0.01.

From the previous table, there were significant relation (p-value<0.01) between the degrees of postpartum depression (EDINBURGH measure) and the following factors of pressures measure: (Economic and cultural and social, Psychological, Professional and political, total pressures).

It is clear that the degrees of postpartum depression (EDNBIRG measure) are negatively correlated to all of the previously mentioned pressure factors (Pearson's correlation coefficients were between -0.24 and -0.42) which implies the more degrees of the previous mentioned factors of pressure tends to the less degrees of postpartum depression (EDINBURGH measure).

**4.3Factors Causing Post Partum Depression for new delivery Women in Gaza strip:** 

5- There are no predictor variables ( $\alpha$ =0.05) in the degrees of Post Partum Depression for women in Gaza strip who recently delivered related to specified independent variables:

To figure out the most important factors that might affect having post partum depression for new delivery women in Gaza strip, logistic regression was used to form a statistical model that explains the important factors that can directly affect having post partum depression among Women in Gaza strip, first we illustrate briefly about the method of logistic regression as follows:



#### **Logistic Regression models**

The regression methods concerning generally with specifying the relation nature between the variables and to use that relation in expecting the values for a variable (response variable), when knowing the value of the other variable or variables (independent variables). Moreover, the main aim to use the regression methods is to make the model that represents the relation between the variables to use that in statistical inference. Another important usage of logistic regression models is to estimate whether a certain action/ phenomena is going to occur or not.

#### The factors that are used in creating the model

#### The response variable:

The chance of having postpartum depression and its values are either:

(0: for having no postpartum depression, 1: for having post partum depression)

#### The independent variables:

All variables which are included in the following parts:

- 1. Demographic variables.
- 2. Health dimension variables.
- 3. Health Situation variables.
- 4. Factors of pressure.

#### **Results of the Logistic Regression model:**

It's clear from the following table the importance of each of the independent variables that are specified to be inserted in the suggested logistic regression model to expect the values of the response variable which is having postpartum depression among women in Gaza strip. The significance level of each of the independent variables (P- value <0.01) in the model and the variables were: (job of husband, evaluation of the woman for the delivery, suffered diseases in the pregnancy, social pressures, and psychological pressures).

Moreover, it was statistically approved that the mentioned variables were the best in order to disaggregate between women that have postpartum depression and those who don't have. The independent variables were chosen according to Wald statistical method (Wald Statistics), which justify the importance of the independent variables that are inserted in the suggested model, and to examine the related coefficient of each of the independent variables if it is significant and not equal to zero, also shows the difference



of the other side of the equation from zero which implies that it is statistically significant according to Wald test, it was W = 36.87, and the P-value =0.001 < 0.05. Also it was found that the standard error for the coefficients of the model (S.E.) were having standard error that is less than 2, which indicates that it is true to rely of these variables in explaining the results of the classification and there were no numerical problems.

Table (4.66): shows the way of step by step choosing criteria (Wald) for the logistic regression model, showing the values of independent variables coefficient with significances

| Independent<br>Variables                     | B S.E. | S.E.  | Wald   | df | Sig.     | Exp<br>(B) | 95% C.I.<br>for EXP(B) |       |
|--|--------|-------|--------|----|----------|------------|------------------------|-------|
|  |        |       |        |    |          | (2)        | Lower                  | Upper |
| Job of husband                               | -0.115 | 0.056 | 4.318  | 1  | 0.038**  | 0.891      | 0.799                  | 0.993 |
| Woman's evaluation<br>of the delivery        | 0.554  | 0.281 | 3.891  | 1  | 0.049**  | 1.740      | 1.004                  | 3.016 |
| Diseases were faced<br>during last pregnancy | -0.154 | 0.061 | 6.437  | 1  | 0.011**  | 0.857      | 0.761                  | 0.966 |
| Social and Economical pressures              | -0.098 | 0.036 | 7.342  | 1  | 0.007**  | 0.907      | 0.845                  | 0.973 |
| Psychological<br>pressures                   | -0.068 | 0.021 | 10.134 | 1  | 0.001**  | 0.934      | 0.896                  | 0.974 |
| Constant                                     | 7.747  | 1.276 | 36.878 | 1  | 10.000** | 2315.74    |                        |       |

# The criteria of using the suggested logistic regression model in estimating postpartum depression:

From the previous table, a logistic regression model can be taken according to what suits the available variables and data as follows:

 $\label{eq:log-odd} \begin{array}{rcrr} Log \ Odds \ (Depress) \ = \ 7.7 \ - \ 0.11 \ (X_1) \ + \ 0.55 \ (X_2) \ - \ 0.15 \ (X_3) \ - \ 0.09 \ (X_4) \ - \\ 0.06 \ (X_5) \end{array}$ 

Before explaining the model, we will illustrate the meaning of these factors and the used related symbols to perform the model, as shown at below:

Where: Log odds (kind) : is for the natural logarithm for difference rations of the response variable (postpartum depression), the previous model can be represented in an exponential equation:



Where:

Exp ≈2.71828

Odds (redid): difference ration for having postpartum depression (existed, not existed).

X<sub>1</sub>: is for job of husband

X<sub>2</sub>: is for woman's evaluation of the delivery

X<sub>3</sub>: if for diseases were faced during last pregnancy

X<sub>4</sub> :Social and Economical pressures

X<sub>5</sub>: Psychological pressures

### Testing Quality of the logistic regression model:

After achieving the model that includes the independent variables affecting having postpartum depression among new delivered women in Gaza strip, the stepwise logistic regression method was used to get the best inference of existence for postpartum depression, where 5 models were concluded via the stepwise logistic regression method with their related independent variables, as well, we will differentiate between these models up to reaching the best logistic regression model helps to expect the existence of postpartum depression, related results are illustrated as the table below:

| Table (4.67): r | esults of testing qu | ality for logistic r | egression models | s using stepwise |
|-----------------|----------------------|----------------------|------------------|------------------|
| method          |                      |                      |                  |                  |

| model                 | -2 Log<br>likelihood<br>Chi-square<br>test for<br>efficiency |      | P-value | Determination<br>coefficient<br>Cox and Snell | Determination<br>coefficient<br>Nagel kerker |
|-----------------------|--|------|---------|---|--|
| 5 <sup>th</sup> model | 93.273   | 40.9 | 0.001** | 0.26  | 0.417  |

After comparing between the models that were got, it was concluded that the chosen model showed better explanations of the existence of postpartum depression comparing to other models, -2 log likelihood reduced clearly from 118.339 to 93.273 in the 8<sup>th</sup> model, in addition, the increasing of the coefficient R square of Cox and Snell from 0.112 to 0.26, also the increasing of R square **of Nagel** kerker coefficient from



0.177 to 0.417. All of that raises the approved conclusion that the  $5^{th}$  is the best reached model for the data.

It's worth to add that another measure of the quality of suggested models, according to that measure we can compare between many models, which is the classification table for the response variable, based on structuring that can if the possibility of having a phenomena  $\pi(x)$  is equal or more than 0.5, the expected events to be occur are categorized in two categories (0, 1) in tables were the better model the higher percentages of the true expectations, as follows shown a categorization table of the variable (case of existence of postpartum depression) for the logistic regression model that were designed according to the step-by-step method in choosing the independent variables to be inserted in the model:

Table (4.68): the logistic regression model that has the independent variables and the consistency of the model

| Model                | Infection  | Predicted  | Percentage |         |
|----------------------|------------|------------|------------|---------|
| Widdei               | status     | Uninfected | Infected   | Correct |
| 5 <sup>th</sup> Step | Infected   | 17         | 66         | 33.3    |
|                      | Uninfected | 12         | 279        | 94.3    |
|                      |            |            |            | %82.0   |

Its clear from the previous table of categorization of the variable (case of existence of postpartum depression) in the logistic regression model that the ratios of the true expectations did not increase when inserting new variables to the model, the ratios of the true expectations in the first model that has the constant term were %78.9, and it reached %79.1 when inserting the variables in the 5<sup>th</sup> model, which is the developed model to expect the existence of postpartum depression among new delivered women in Gaza strip.

#### Testing efficiency of the logistic regression model to expect:

For testing the efficiency of the concluded logistic regression model to expect the existence of having postpartum depression, the results showed the following:



| Real infection |   | Predicted  | Total    |        |
|----------------|---|------------|----------|--------|
| status         |   | Uninfected | Infected | Iotai  |
| Uninfected     | Ν | 24         | 91       | 115    |
|                | % | 20.9%      | 79.1%    | 100.0% |
| Infootod       | Ν | 15         | 310      | 325    |
| Imecteu        | % | 4.6%       | 95.4%    | 100.0% |

 Table (4.69): shows classifications of women not having/ having postpartum

 depression

Accuracy of classifications = 58.15%

The previous table shows the results of women that having postpartum depression, where 106 mistakes are were observed in expecting, 15 of the women that having postpartum depression were classified as women that having no postpartum depression. Since the error in statistics is measured according to the chance of having error, which is 4.6% in this case, so the chance of having no errors is 95.4%, indicating that the accuracy of expecting having postpartum depression among women in Gaza equals 58.15%.



# **Chapter Five**

## **Discussion, Conclusion and Recommendation**



#### **Discussion:**

#### 5.1 Overview

In the world postpartum depression (PPD) is a significant public health problem which affects approximately 13% of women within a year of childbirth. Although rates of depression do not appear to be higher in women in the period after childbirth compared to age matched control women (10-15%), the rates of first onset and severe depression are elevated by at least three-fold. Depression at this critical period of life carries special meanings and risks to the woman and her family. It is possible to identify women with increased risk factors for PPD, but the unacceptably low positive predictive values of all currently available antenatal screening tools make it difficult to recommend them for routine care. Several postpartum screening tools exist but the optimal time for screening and their applicability to multicultural populations are not yet established.

This study cross sectional descriptive, showed that Palestinian women still reported a variety of traumatic events as a result of the repeated incursions of the Gaza Strip by the Israelis. The study research the prevalence of PPD among women in Gaza strip and the most common risk factors which may develop this disease. The researchers choose this topic due to its very need and very important because it's related to the most important categories in Palestinian country. Approval from the Islamic university was taken. The Edinburgh international scale which consist of 10 questions were assigned to measure the presence of PPD. And especial questionnaire was designed for this purpose and the subjects were asked to answer those questions.

#### 5.1.1 Demographic and clinical characteristics

According to the criteria designed by the researcher and her supervisor the sample was chosen to be totally (440) subjects of new delivered women from all states in Gaza Strip who delivered during the study period, noticed that varieties of ages and qualifications. The study sample drawn by using simple stratified random sample (accidental random sample) in different area of Gaza Strip. The researcher selected randomly delivered women in the five big UNRWA clinic (Jabalia, Gaza, Nasserite, KhanYounis, and Rafah .The responding from participant were high and reach 93%.In order find out the characteristics of the study sample, frequencies and percentages were calculated for the religion, accommodation and his type, education level, job for the women and her husband, income, age women and her husband ,age at marriage, number



of Children, gender of last baby, the number of males and females, family size, number of marriages for the sample, the results are listed below religion: 396 women representing (90.0%) of the total sample were Muslims. while 44 women that are (10.0%) of the total sample didn't respond. State: Almost 89women representing approximately (20.0%) of the total sample were from the following states: Gaza, Jabalia, Nassir at, KhanYounis, and Rafah. Living: 201 women representing (45.7%) of the sample live in camp, 166 of them representing (42.3%) of the sample live in city, while 47 women representing (10.7%) of the sample live in village. Type of the household: 326 women representing (74.1%) of the sample they live in an own house who are the most in the study sample, 79 women representing (18.0%) of the sample live in rent house, while 19 women representing (4.3%) of the sample live in dependent house, and only 11 women representing (2.5%) of the sample live in independent house. Educational Level: 179 women representing (40.7%) of the sample have academic or more certification, and 172 women representing (39.1%) of the sample have secondary certification, 68 women representing (15.5%) of the sample have less than secondary certification, while 16 women representing (3.6%) of the sample is illiterate. Job: 352 women representing (80.0%) of the sample doesn't work who are the most of the study sample, 44 women representing (10.0%) of the sample work, while 18 women representing (4.1%) of the sample have an intermittently job, and 8 women representing (1.8%) of the sample have a permanent job. Husband's job :148 women representing (33.6%) of the sample her husband have a permanent governmental job, 94 women representing (21.4%%) of the sample her husband doesn't work, 69 women representing (15.7%) of the sample her husband have a permanent private sector job, 64 women representing (14.5%) of the sample her husband have a an intermittently private sector job, while 34 women representing (7.7%) of the sample her husband have an intermittently governmental job, and 13 women representing (3.0%) of the sample her husband have a permanent job in UNRWA, only 8 women representing (1.8%) of the sample her husband have intermittently job in UNRWA, Monthly income :165 women representing (37.5%) of the sample their Monthly Salary from 1000 to 2000 shekel, 158 women representing (35.9%) of the sample their Monthly Salary less than 1000 shekel, while 84 women representing (19.1%) of the sample their Monthly Salary more than 2000 shekel. Age: 295 women representing (67.0%) of the sample their age from 20 - 30 years, 83 women representing (18.9%) of the sample their age from 30 -40 years, and 44 women representing (10.0%) of the sample their age less than 20 years, while 8 women



representing (1.8%) of the sample their age 40 years and more. Age when married :294 women representing (66.8%) of the sample they were 18 -25 years when they get married, 96 women representing (21.87%) of the sample they were less than 18 years when they get married, while 33 women representing (7.5%) of the sample they were 25 years and more when they get married. Husband's age: 260 women representing (59.1%) of the sample their husband's age from 25 -35 years, 79 women representing (18.0%) of the sample their husband's age 25 years and less, and 73 women representing (16.6%) of the sample their husband's age from 35 -45 years, while 20 women representing (4.5%) of the sample their husband's age 20 years and more. Gender of last baby: 223 women representing (50.7%) of the sample their last baby was female, while 211 women representing (48.0%) of the sample the last baby they have was male. Number of children: The number of children for women in the sample was ranging between one to 11 children with mean equals 3.3 children and standard deviation equals. Number of male children: The number of male children for women in the sample was ranging between 0 to 8 male children with mean equals 1.7 male children and standard deviation equals 1.5.Number of female children: The number of female children for women in the sample was ranging between 0 to 8 female children with mean equals 1.7 female male children and standard deviation equals 1.5.Number of persons living in the household: The number of persons living in the household with women in the sample was ranging between 1 to 30 persons with mean equals 6.7 persons and standard deviation equals 3.8Number of marriages for the husband:409 women representing (93.0%) of the sample their husband isn't Polygamous, while 26 women representing (5.9%) of the their husband is Polygamous. Number in wives:144 women representing (32.7%) of the sample they are the first wife, while 23 women representing (5.2%) of the sample they are the second wife, and 1 women representing (0.2%) of the sample they are more than second wife. Number of marriages for the sample: 261 women representing (59.3%) of the sample their marriage are the first marriage to them, while 18 women representing (4.1%) of the sample their marriage are the second marriage to them.

**5.1.2 Prevalence of depression:** the results showed that the prevalence were 55.0% (242women) from the sample suffering from a postpartum depression and need mental care, 26.1% (115women) from the sample doesn't suffering from a postpartum depression, and 18.9% (83women) possible postpartum depression and have to retry



the test after two weeks. The results differ from the result obtained by Sammor, (2002) which indicated that the prevalence was 69% nearly.

Most of the world study indicate that the prevalence of PPD in the word less than clearly but my explanation to this high prevalence related to the risk factors which my research explain and predict by 58% that they have direct effect on PPD especially after Gaza war in2008.But all of them used Edinburg scale to measure PPD but the limited time for each study differ but the rang was from one week to one year.

Here in Gaza many stressors play an important role in developing PPD .these stressors may be related to the parity, income, education, evaluation of last delivery, physical illness, history of mental illness, social and cultural stressors, Gaza war, Israeli atacks, siege which is continues for more than five years and lead to deficiency of drugs and special needs, loss of relatives or children or partner. All these stressors will play important role in the developing of mental illness in population and post partum depression in women particularly.

But unfortunately the world take this low percentage in PPD seriously and looked to help those categories and prevent the bad prognoses for their illness, and here the stigma from mental illness prevent those women from receiving the appropriate treatment, that from one side but the other side neglect the psychiatric illness play an important role which prevent from help those people.

# 5.1.3 Differences between Post partum Depression and the sociodemographic variables:

In this study the researcher found there are no statistical significant differences ( $\alpha$ =0.05) in the degrees of postpartum depression of women in Gaza strip who recently delivered related to the demographic variables:

\*\* In this study the reseatcher found no relation related to the states of living, there were no statistical significant relation (p-value>0.05), all women in all states have almost the same degrees of postpartumdepression, (Jabalia 20.7, Gaza15.7, Nusierat23.6, Khanyounis20.7, Rafah 19.4).

\*\*Also in this study the accomodationfinding, there were statistical significant relation (Chi-sq=10.9, p-value<0.05), most of the woman having high postpartum depression live in camps, while most of the women with possible, no postpartum



depression living in the cities, there are no study refferd to the relation between living in arefugee camp and post partu depression.

\*\*In my study the Type of housing, there were no statistical significant relation (p-value>0.05), most of the women having any postpartum depression level live ownership houses also here are no study refferd to the relation between type of housing post partu depression, family members my discourage women from seeking help it is unacceptable to disscuss difficulties external to family context (Mathey, Barnett ,&Elliot, 1997, Okano et al., 1998).

\*\*Also in my study the educational level, there were no statistical significant relation (p-value>0.05), so women having all educational levels have quevalent postpartum depression levels. A study by Gurel and Gurel (2000) indicated that low educational level was directly associated as a risk factor for postpartum depression.

\*\*In relation to the working status, there were no statistical significant relation (p-value>0.05), so women with all working status have quevalent postpartum depression levels.

\*\*The researcher showes arelation for the husband's job, there were statistical significant relation (Chi-sq=20.8, p-value<0.05), most of the woman having high postpartum depression their hasbands don't working, while most of the women with possible postpartum depression ,no postpartum depression are married to men that are working in permanent governmental job.

\*\*In addition for the monthly income, there were no statistical significant relation (p-value>0.05), so women with all month incomes have quevalent postpartum depression levels, in other studies for OHara&Swan 1996,Rich Edwards et al.,2006) there wer arelation between low income andpost partum depression.

\*\* The researcher showes that the age and PPD relation, there were no statistical significant relation (p-value>0.05), so women with all ages have quevalent postpartum depression levels.

\*\*The study showes the age when get married relation to PPD, there were no statistical significant relation (p-value>0.05), so women with all ages when get married



have quevalent postpartum depression levels maternal age studies repoted 116articales some of them found arelation and other did not found(Kabir K, et al.,2008).

\*\*For the husband's job, there were statistical significant relation (Chi-sq=14.7, p-value<0.05), most of the woman having high postpartum depression their hasbands were 25-35 or 35-45 years old, while most of the women with possible postpartum depression depression their hasbands were 25-35 or less than 20 years old.

\*\*For the chlidren number, there were statistical significant relation (F-test=4.3, p-value<0.05), the woman having high postpartum depression have more children than the women no postpartum depression, finally woman having possible postpartum depression have the least number of children.postpartum depression their hasbands were 25-35 or 35-45 years old,this agree with others studies ( Campell and Cohen 1991,Kumer and Robonson 1984).

\*\*That differ with other researcher who found that the prevalence of PPD in women who were not primiparous was no different, thus the findings of Green, Broome, and Mirabella (2006) were not supported. Data were not available for the population of women associated with the military in terms of number of children. Prevalence of PPD was assessed in ten of the articles (Bugdayci, Sasmaz, Tezcan, Kurt, Oner, 2004; O'Boyle, Magann, Ricks, Doyle, Morrison, 2005; Chee, Lee, Chong, Tan, Ng, Fones, 2005; Goyal, Murphy, Cohen, 2006; Green, Broome, Mirabella, 2006; Rychnovsky, Beck, 2006; Huang, Mathers, 2007; Adewuya, Ola, Aloba, Dada, Fasoto, 2007; Fisher, Hammarberg, Baker, 2008; Mann, McKeown, Bacon, Vesselinov, Bush, 59.

\*\*For the Type of the last delevered baby, there were no statistical significant relation (p-value>0.05), so women with both the last delevered gender babies have quevalent postpartum depression levels, agree with (Hopkins et al.,1987,Hostertter et al., 2002).

\*\*For the male chlidren number, there were statistical significant relation (F-test=5.2, p-value<0.05), the woman having high postpartum depression have more male children then the women with no postpartum depression, finally woman having possible postpartum depression have the least number of male children.

\*\*For the female chlidren number, there were no statistical significant relation (p-value>0.05), the woman having high postpartum depression have more female



children then the women with no postpartum depression, finally woman having possible postpartum depression have the least number of female children

\*\*For the number of other persons living at home, there were statistical significant relation (F-test=7.8, p-value>0.05), the woman having high postpartum depression have the most number of other persons living at home, then the women with no postpartum depression, finally woman having possible postpartum depression have the least number of other persons living at home agree with studies to( Mathey et al.,1997).

\*\*For if the husband is marring to another women, there were no statistical significant relation (p-value>0.05), so women having husbands marring to another women or not, both have quevalent postpartum depression levels.

\*\*For the order in wife's, there were no statistical significant relation (p-value>0.05), so women with all orders of marrages have quevalent postpartum depression levels .

\*\* the study which found that the number of woman marriages, there were no statistical significant relation (p-value>0.05), so women with numbers of marrages have quevalent postpartum depression levels.

\*\*That agreed with previous studies, lack of social support, marital disharmony, depressive symptoms during pregnancy, history of emotional problems, prolonged infant health problems Prenatal depression, social support, marital relationship, history of depression, infant temperament (Glasser, Barell, Boyko, Ziv, Lusky, Shoham, Hart 2000 Israeli women) Grand multiparty, short inter-pregnancy interval, low education level Life stress, low socioeconomic status (Turkish women Gurel ,2000) .Low social support, personal history of mood disorder, past history of Linnanem, Dibley, Pritchard (2000),postnatal depression Social support, history, of depression(prenatal anxiety) Webster , Sociodemographic, Socioeconomic status, prenatal depression, life stress, personality, psychiatric history, recent life events Johnstone, Boyce, Hickey, Morris-Yates, Harris (2001). Isolation, lack of social support and marital issues, physical ill health and exhaustion Social support, marital relationship Small, Lumley, Yelland (2003) Vietnamese, Turkish, Filipino immigrant women in Australia. Decreased levels of practical help and emotional support, economic difficulties, poor marital



relationships Indian women (Goa) Rodrigues, Patel, Jaswal, de Souza (2003), socioeconomical condition as (Sammour A. 2002) research explain. Other national studies reported the same risk factores or different factores.

\*\*Decreased levels of practical help and emotional support, economic difficulties, poor marital relationships Social support, socioeconomic status, marital relationship Indian women (Goa) Rodrigues, Patel, Jaswal, de Souza (2003).

\*\*Poor emotional support, past history (Singaporean women Chee, Lee, Chong, Tan, Ng, Fones, 2005). Beck associates 13 risk factors with postpartum depression. They include prenatal depression, self-esteem, childcare stress, prenatal anxiety, life stress, social support, marital relationship, and history of depression, infant maternity blues, marital status, socioeconomic temperament, status, and unplanned/unwanted pregnancy (Beck, 2001). The demographic data gathered throughout this research allowed for some comparison. Previous depression was assessed for the civilian group in rural northwestern Montana and six participants (22%) indicated they had a previous history of depression. The results appear consistent with Beck's research associating a previous history of depression with postpartum depression

#### 5.1.4 The healthy dimension and the post partum depression:

My study show that the relation of postpartum depression levels and each of the Healthy Dimension variables, as shown at the following tables :

\*\*For having Reason of hospital admissions at the past, there were no statistical significant relation (p-value>0.05), so women having previous hospital admissions or not, both have quevalent postpartum depression levels.

\*\*For having surgical operation at the past, there were no statistical significant relation (p-value>0.05), so women having previous surgical operation or not, both have quevalent postpartum depression levels this agreed with( Brown&Lumily 2000,Ohara 1994).

\*\*For Suffering from Menstruation disturbance before pregnancy, there were statistical significant relation (Chi-sq= 10.3, p-value>0.05), most of the women having high postpartum depression had suffered from Menstruation disturbance before



pregnancy, while most of the women having possible / no postpartum depression had not suffered from Menstruation disturbance before pregnancy.

\*\*For Suffering from Psychiatric problems before period time, there were statistical significant relation (Chi-sq= 23.4, p-value<0.05), most of the women having high postpartum depression had suffered from headeach and concstantly abdominal pain, while most of the women having possible / no postpartum depression had suffered from anixiety and concstantly abdominal pain.

\*\*For Suffering from Psychiatric problems at the past, there were no statistical significant relation (p-value>0.05), so women Suffering from Psychological problems at the past or not, both have quevalent postpartum depression levels.

That agreed with pervious numerous other studies have indicated that previous depression is a risk factor for postpartum depression (Glasser et al., 2000, Webster et al., 2000, Chee et al., 2005, Ho-Yen et al., 2007; Zelkowitz et al., 2008, and Downs et al., 2008) . Further analysis as to whether pre-existing depression affected the results did not allow for a robust.

\*\*For Suffering from anemia at the past, there were statistical significant relation (Chi-sq= 6.2, p-value<0.05), most of the women having high postpartum depression have anemia, while most of the women having possible / no postpartum depression don't have.

\*\*For blood HB, there were no statistical significant relation (p-value>0.05), women Suffering from high postpartum depression having the least HB Blood values. And that differ with study which confirm the relation between irondeficincy and PPD(Alan Sive and Mark Tomlinson(1994).

\*\*For Suffering from psychological disorders at the family history, there were statistical significant relation (Chi-sq= 6.7, p-value<0.05), most of the women having psychological disorders have high postpartum depression have anemia, while most of the women that dno't having psychological have possible / no postpartum depression don't have.

#### 5.1.5 Deference between the health situation and post partum depression

My study show that the relation of postpartum depression levels and each of the Healthy Situation variables, as shown at the following tables :



\*\*For how was the last delivery of women, there were no statistical significant relation (p-value>0.05), so women having delivery with both ways, have quevalent postpartum depression levels.

\*\*For how was the last delivery of women, there were no statistical significant relation (p-value>0.05), so women having delivery with both ways, have quevalent postpartum depression levels easy or hard .

And that differ with the study which found there is also some evidence that providing support, such as "listening visits", can lead to better obstetric outcomes and better psychosocial adjustment in mothers. A review of "listening visits" research has recommended that future studies need to evaluate antenatal assessment and preventive strategies for postnatal depression (Clement, 1995). For instance, research is required to measure whether increased specific community or maternal and child health nurse contacts conducted antenatal could assist in decreasing postnatal depression and improving perinatal psychological outcomes (Clement, 1995).

\*\*For the location of the last delivery, there were no statistical significant relation (p-value<0.05), so women with any level of postpartum depression have the same locations of delevery.

\*\*For the Suffering from diseases in the last pregnancy, there were statistical significant relation (Chi-square= 38.6, p-value<0.001), women having high postpartum depression were the highest suffering from diseases in the last pregnancy, while women having no postpartum depression were the least suffering from diseases in the last pregnancy.

\*\*For the Suffering from diseases in the last pregnancy, there were statistical significant relation (Chi-square< 5.5, p-value<0.05), women having high postpartum depression were the highest suffering from all psychological problems, while women having no .

\*\*For asking about Fetal sex during the last pregnancy, there were no statistical significant relation (p-value<0.05), so women with any level of postpartum depression



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asked the same about Fetal sex during the last pregnancy and that agred with, Lumley, Yelland (2003).

# 5.1.6 postpartum depression were the least suffering from psychological problems in the last pregnancy .

\*\*For doing the ultrasound during the last pregnancy, there were no statistical significant relation (p-value<0.05), so women with any level of postpartum depression done the ultrasound the same during the last pregnancy.

\*\*The study found that being worried because of the ultra sound, there were statistical significant relation (Chi-square= 12.7, p-value<0.01), most of the women in the sample with all levels of post partum depression were not worried because of the ultra sound .

\*\*aAlso getting mental support services during the last pregnancy, there were no statistical significant relation (p-value>0.05), so the women that have high postpartum depression or women who don't have had gotten the same mental support services during the last pregnancy.

\*\*For the wome evaluation of the gotten mental support services during the last pregnancy, there were statistical significant relation (Chi-square= 12.3, p-value<0.01), most of the women in the sample with all levels of postpartumdepression had evaluated the gotten mental support services as good.

\*\*For Problems were faced during the previous pregnancies, there were no statistical significant relation (p-value>0.05), so the women that have high postpartum depression or women who don't have faced the same problems during the previous pregnancies.

That differs with study found prenatal anxiety, life stress, social support, marital relationship, history of depression, infant temperament, maternity blues, marital status, socioeconomic status, and unplanned/unwanted pregnancy (Beck, 2001),but agree with (Halmesmaki,E. 2001).

\*\*For Delivering a baby with an organic diseases, there were no statistical significant relation (p-value>0.05), so the women that have high postpartum depression



or women who don't had equevalent rates of Delivering babies with an organic diseases.

\*\*For the type of organic diseases for the babies, there were no statistical significant relation (p-value>0.05), so the women that have high postpartum For received healthcare during pregnancy, there were no statistical significant relation (p-value>0.05), so the women that have high postpartum depression or women who don't had equevalent rates of received healthcare during pregnancy. depression or women who don't had equevalent rates of organic diseases were in the delivered babies.

#### 5.1.7 Relation between measurement of pressures and post partum Depression:

The relation between the degrees of Post Partum Depression (EDINBRG measure) and the Pressure measure with its related factors, the researcher calculated Pearson's correlation coefficients of each factor of pressure and the total EDINBURGH measure, there were significant relation (p-value<0.01) between the degrees of postpartum depression (EDINBRG measure) and the following factors of pressures measure: (Economic and cultural and social, Psychological, Professional and political, total pressures). It is clear that the degrees of postpartum depression (EDINBURGH measure) are negatively correlated to all of the previously mentioned pressure factors (Pearson's correlation coefficients were between -0.241 and -0.424) which implies the more degrees of the previous mentioned factors of pressure tends to the less degrees of postpartum depression (EDINBURGH measure).

# 5.1.8 Factors Causing Post Partum Depression for new delivery Women in Gaza strip:

The most important factors that might affect having post partum depression for new delivery women in Gaza strip, logistic regression was used to form a statistical model that explains the important factors that can directly affect having post partum depression among Women in Gaza strip, first we illustrate briefly about the method of logistic regression. The logistic model found the independent variables:

All variables which are included in the following parts: Demographic variables, Health dimension variables, Health Situation variables, Factors of pressure.

It's clear from the following table the importance of each of the independent variables that are specified to be inserted in the suggested logistic regression model to



expect the values of the response variable which is having postpartum depression among women in Gaza strip. The significance level of each of the independent variables (P- value <0.01) in the model and the variables were: (job of husband, evaluation of the woman for the delivery, suffered diseases in the pregnancy, social pressures, and psychological pressures). Moreover, it was statistically approved that the mentioned variables were the best in order to disaggregate between women that have postpartum depression and those who don't have. The independent variables were chosen according to Wald statistical method (Wald Statistics), which justify the importance of the independent variables that are inserted in the suggested model, and to examine the related coefficient of each of the independent variables if it is significant and not equal to zero, also shows the difference of the other side of the equation from zero which implies that it is statistically significant according to Wald test, it was W = 36.87, and the P-value =0.001 < 0.05. Also it was found that the standard error for the coefficients of the model (S.E.) were having standard error that is less than 2, which indicates that it is true to rely of these variables in explaining the results of the classification and there were no numerical problems.

It's clear from the previous table of categorization of the variable (case of existence of postpartum depression) in the logistic regression model that the ratios of the true expectations did not increase when inserting new variables to the model, the ratios of the true expectations in the first model that has the constant term were **78.9** %, and it reached 79.1 %when inserting the variables in the 5<sup>th</sup> model, which is the developed model to expect the existence of postpartum depression among new delivered women in Gaza strip . negatively correlated to all of the previously mentioned pressure factors (Pearson's correlation coefficients were between -0.241 and -0.424) which implies the more degrees of the previous mentioned factors of pressure tends to the less degrees of postpartum depression (EDINBURGH measure)

#### 5.2 Conclusion

The prevalence of PPD: 55.0% from the sample suffering from a postpartum depression and need mental care, 26.1% from the sample doesn't suffering from a postpartum depression, and 18.9% possible postpartum depression



#### Factors causing post partum depression for new delivery women in Gaza strip:

The most important factors that might affect having post partum depression for new delivery women in Gaza strip, logistic regression was used to form a statistical model that explains the important factors that can directly affect having post partum depression among Women in Gaza strip, first we illustrate briefly about the method of logistic regression .The logistic model found the independent variables:

All variables which are included in the following parts:

- 5. Demographic variables.
- 6. Health dimension variables.
- 7. Health Situation variables.
- 8. Factors of pressure.

#### **5.3 Recommendations**

Mental illnesses traditional common in Palestinian society, many families consider it has as stigma and neglect the treatment of it and look to the patient with mental disorder as unvalued, neglected things. there feeling phobia to know the others by his illness make them to hide and secrete his illness and not seeking for treatment especially if the patient was women .and the researcher see that our responsibility to seek and help this category or division for this helpless people.

One of the wise saying "prevention is the best cure" and in mental disorder it is difficult and really so

- According to the high existence of PPD in GAZA Strip as this study appear 55% of the women have PPD ,and that mean serious need for treatment,and18.9 % possible have PPD that mean need good follow up to prevent PPD.
- The high percentage obligate us to evaluate all the women after delivary for PPD.
- Some of those women have suicide thought also that mean quick and serious follow up and intervention.
- Bad economic condition lead to PPD ,so it must be impotent interruption to the social services.
- To ensure access PPD council ling for new pregnant woman and her family and the councilor.



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- To adapt awareness campaigning and IEC (information, education and communication) activities on PPD women as a part of reproductive health programs in the primary health clinics, school.
- To introduce the subject of PPD in the community as aver important subject.
- To ensure frequent and consistent support of the decision makers, legislative council and other influential bodes to the reproductive health ,and mental program
- To involve the religious and Muslim leaders in the PPD, this will fit our culture 'cultural appropriateness" and gives the view of active support.
- To introduce pre-conception information and counseling services.
- Worldwide, primary health care services need strengthening in this important are pre-conception information, screening and counseling. And development of educational materials for women and primary health care workers.
- To train health care worker how to discover, diagnose. Deal, council, and guide those women.
- To implement community based health education programs using mass media and involving
- Nurses and midwifes. School health program and community leaders to increase the awareness of mental illness especially those how related to women as PPD.
- To design, produce and disseminate health education materials-regarding PPDtaking into consideration the characteristics, the culture and the religion of population.
- To train primary care staff on basic of PPD counseling.
- To incorporate mental illness counseling services into maternal and child health programs.
- Family planning program may provide suitable focus for advice about future pregnancies beacouse large number of children cause PPD as this study appear.
- To develop guidelines for the prevention of mental illness especially who related to women as PPD by the contribution of health education department women and child
- Health department and all other concerned authorities.
- Regarding secondary prevention ,the following recommendation are suggested:-



- Screening for all delivered women from one week to three mothers after deli vary to exclude PPD
- Screening for all pregnant women in the third trimester of pregnancy to predict women may experience PPD.
- Ministry of health and other institutions have related health programmers planning and monitoring should be serious and systemically.
- Reinforcement of health care staff about documented cases.
- Standardized and comparable studies are needed to provide data that can be used in developing health policies .There is an urgent need for pilot studies of the feasibility of PPD diagnosis and counseling for extended families of people with mental illness

### **5.4 Recommendation for further studies**

Study to measure mortality rate related to PPD The impact of PPD on the child development Intervention program to discover and treat PPD Program to measure the burden of family caregiver of PPD woman and new baby Father depression



#### **5.5 Practice Recommendations**

#### 5.5.1 Prevention

Registered Nurses Association of Ontario, www rnao. Org/ best practice 2005. Nurses provide individualized, flexible postpartum care based on the identification of depressive symptoms and maternal preference. Nurses initiate preventive strategies in the early postpartum period.

#### 5.5.2 Confirming depressive symptoms

The Edinburgh Postnatal Depression Scale (EPDS) is recommended self-report tool to confirm depressive symptoms in postpartum mothers. The EPDS can be administered anytime throughout the postpartum period (birth to 12 months) to confirm depressive symptoms. Nurses encourage postpartum mothers to complete the EPDS tool by themselves in practice.0An EPDS cut-off score greater than 12 may be used to determine depressive symptoms among English-speaking women in the postpartum period. This cut-off criterion should be interpreted cautiously with mothers who: 1) are non-English speaking; 2) use English as a second language, and/or 3) are from diverse cultures. The EPDS must be interpreted in combination with clinical judgment to confirm postpartum mothers with depressive symptoms. Nurses should provide immediate assessment for self harm ideation / behavior when a mother scores positive.

#### 5.5.3 Treatment recommendations

Nurses provide supportive weekly interactions and ongoing assessment focusing on mental health needs of postpartum mothers experiencing depressive symptoms..

#### 5.5.4 Discussion for nurses practice

Nurses facilitate opportunities for the provision of peer support for postpartum mothers with depressive symptoms.

Nurses may be in a position either to organize peer support groups or may direct women to community resources based on availability and maternal preference. If group interventions are to be offered, the appropriateness of the group modality should be assessed for each individual. For example, some women may be too severely distressed to benefit from a group intervention. Furthermore, barriers to group atendance need to also be considered and may include:



- perceived appropriateness of groups in the cultural context;
- stigma and the need for community education;
- need for childcare and transportation reimbursement; and
- Feasibility in rural or remote communities with a limited number of women with postpartum depression at any time.

#### **5.6 General recommendations**

- Nurses facilitate the involvement of partners and family members in the provision of care for postpartum mothers experiencing depressive symptoms, as appropriate (Morse, Buist & Durkin, 200021(2), 109-120,).
- Nurses promote self care activities among new mothers to assist in alleviating depressive symptoms during the postpartum period. Self-care strategies are important for all women during the postpartum period. For women experiencing depressive symptoms, self care may assist in alleviating depressive symptoms in conjunction with appropriate medical and psychological interventions. It is important to note that engaging in self-care practices alone will not alleviate moderate or severe postpartum depression. Fatigue is a common issue reported in the early postpartum period (Small et al., 1994, Pugh & Milligan, 1995, 28(1), 74-80.,). There is theoretical support for lack of sleep and maternal mood in the postpartum period suggesting that limited or lack of sleep may be associated with mood lability and emotional reactivity in the early postpartum period. In a qualitative study by Small et al., (1994 12, 19-22,) reported that mothers expressed fatigue as one of the top four contributing factors to their depression. Furthermore in a study examining fatigue and postpartum depression, Bozoky & Corwin (200231(4), 436-443,) found that early postpartum fatigue was a predictor of maternal mood. These authors suggested that early interventions to reduce fatigue may be beneficial in reducing depression. However, the link between fatigue and postpartum depression has not been well delineated or translated into interventions related specifically to sleep. Again, these studies used relatively small and homogeneous samples of white, mostly married women indicating the need for further research in this area. Self-care practices also extend into various cultural groups. Several descriptive studies were found in the literature around a specific set of traditional postpartum practices regarded as beneficial for healing in the postpartum period (Holroyd et al., 199618(3),



301-313; Hundt et al., 2000,21(6), 529-542.; Kaewern et al., 2003). In Chinese culture, childbirth is considered an event which causes an imbalance of Yin and Yang in the body and thus women are encouraged to rest preferably in bed (Holroyd et al., 199618(3), 301-313). In the Arab culture, a seclusion period of 40 days with a focus on rest, recuperation and social support is often observed in the postpartum period (Hundt et al., 2000, 21(6), 529-542.). Thus, awareness and appreciation of cultural postpartum practices should form an important part of nursing practice. Clearly, further research surrounding self-care activities and impact on postpartum depression is warranted. Nurses consult appropriate resources for current and accurate information before educating mothers with depressive symptoms about psychotropic medical.

#### **5.7 Education Recommendation**

Nurses providing care to new mothers should receive education on postpartum depression to assist with assessment and intervention of women experiencing depressive symptoms Practice settings establish local care pathways and protocols to guide practice and to ensure mothers with depressive symptoms have access to safe and effective treatment. Practice settings provide orientation and continuing education related to the care of postpartum mothers experiencing depressive symptoms during the postpartum period nursing best practice guidelines can be successfully implemented only where there are adequate planning, resources, organizational and administrative support, as well as appropriate facilitation.

#### Organizations may wish to develop a plan for implementation that includes:

- An assessment of organizational readiness and barriers to education.
- Involvement of all members (whether in a direct or indirect supportive function) who will contribute to the implementation process.
- Dedication of a qualified individual to provide the support needed for the education and implementation process.
- Ongoing opportunities for discussion and education to reinforce the importance of best practices.
- Opportunities for reflection on personal and organizational experience in implementing.



#### 5.8 Research gaps and implications

This nursing best practice guideline posed three clinical questions to structure the reviewed literature. In each of these three areas: prevention, treatment and the confirmation of depressive symptoms, research gaps were identified. Further research in each of the following areas would assist in guiding the care of mothers with postpartum depression.

#### **5.9 Prevention Interventions**

As a means to assess the effectiveness of preventive postpartum depression interventions, large randomized controlled trials are required. Replication of previous trials such as (Macarthur, 2002: 378-385) may be beneficial to determine if the results are generalizable in a Canadian context. General research questions include:

- Are interventions that are initiated antenatal more effective than those initiated postnatal?
- Are interventions that target at-risk mothers more effective than those provided to a general maternal population?
- Are supportive interventions more effective if they are provided by a health professional than a lay individual?
- What are mothers' perceptions of preventative interventions?

#### 5.9.1 Confirming depressive symptoms

Further research is required to examine the psychometric properties of the EPDS in a Canadian context among mothers from diverse cultures. Potential research questions are as follows:

1) Is there an optimal time for the administration of the EPDS to reliably identify women with depressive symptoms?

2) Is the reliability and validity of the EPDS influenced by repeated administrations?

#### **5.9.2 Treatment interventions**

Further research is required regarding the effectiveness of treatment interventions and options for Canadian mothers experiencing postpartum depression. Potential research questions include:

- What are the benefits and risks of psychotropic medications in the management of depressive symptoms?



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- What is the effect of enhanced partner support in the treatment of postpartum depression?
- Which factors promote and hinder the utilization of available treatment options?
- What are mothers' perceptions of treatment interventions?
- What is the effect of peer support groups mediated by nurses among mothers experiencing postpartum depression?

The intervention of non-directive counseling is worth further exploration in view of promising findings. Potential research questions for this treatment intervention are as follows:

- What is the optimal timing of the intervention? In the studies examined, the intervention often did not begin until 6-8 weeks postpartum. Research is needed to determine whether the intervention would be just as effective if offered earlier or later in the postpartum period.
- What is the duration of the intervention? The three trials administered the intervention for approximately 6 to10 weeks, and it is unknown whether offering the intervention for a shorter or longer duration would be as effective and/or cost-effective
- What is the frequency of the intervention? All three trials described offered the intervention on a weekly. Basis. It is currently unknown whether administering the intervention less frequently (e.g., biweekly), as may be necessary due to limited resources and/or a rural or remote setting, will be equally effective. Conversely, it is foreseeable that some women could benefit from a more frequent intervention. No research examining the potential benefits of more frequent home visits is available.
- What is the effect of location of the intervention? In two of the three trials of non-directive counseling, the intervention was home-based. In the third trial, the intervention was provided either at the participant's home or in a clinic and no comparisons in outcomes were made between participants who received the intervention at each site. Therefore, it is unknown if the intervention is as effective when provided in a clinic setting. Other methods of administering the intervention should also be explored, e.g., via telephone.



#### **5.9.3 General interventions**

Potential research questions:

- What self care practices are effective in alleviating depressive symptoms in the postpartum period?
- 2) Are the self-care practices of mothers with depressive symptoms different than mothers without depressive symptoms?
- 3) What role does fatigue play in the development of postpartum period?
- 4) What complimentary therapies are effective as an adjunct to postpartum depression treatment?

### 5.9.4 Education/Organization

Limited research is available concerning the role of educators and organizations in the care of mothers experiencing postpartum depression. The majority of the evidence for these recommendations is Level IV evidence and as such further research is required. Potential research questions include:

- Do postpartum care pathways improve decision-making in nurses?
- Do postpartum care pathways significantly improve timely access to postpartum depression treatment?
- What are the essential nursing education components in providing care for women identified with postpartum depressive symptoms?
- What are the organizational, educational and practice structures required to promote the transfer of knowledge to practice?

### **5.9.5** Nursing best practice guideline

- Have a dedicated person such as an advanced practice nurse or a clinical resource nurse who will provide support, clinical expertise and leadership. The individual should also have good interpersonal, facilitation and project management skills.
- Establish a steering committee comprised of key stakeholders and members committed to leading the initiative. Keep a work plan to track activities, responsibilities and timelines.

Provide educational sessions and ongoing support for implementation. The education sessions may consist of presentations, facilitator's guide, handouts, and case studies. Binders, posters and pocket cards may be used as ongoing reminders of the



training. Plan education sessions that are interactive, include problem solving, address issues of immediate concern and offer opportunities to practice new skills (Davies & Edwards, 2004: 21-23).

- Provide organizational support such as having the structures in place to facilitate the implementation. For example, hiring replacement staff so participants will not be distracted by concerns about work and having an organizational philosophy that reflects the value of best practices through policies and procedures. Develop new assessment and documentation tools
- Identify and support designated best practice champions on each unit to promote and support implementation. Celebrate milestones and achievements, acknowledging work well done.
- Organizations implementing this guideline should look at a range of selflearning, group learning, mentorship and reinforcement strategies that will over time, build the knowledge and confidence of nurses in implementing this guideline.
- Teamwork, collaborative assessment and treatment planning with the client and family and through interdisciplinary work are beneficial in implementing guidelines successfully.



## **References:**

- Affonso, D. D., Lovett, S., Paul, S. M., & Sheptak, S. (1990). A standardized interview that differentiates pregnancy and postpartum symptoms from perinatal clinical depression. Birth, 17(3), 121-130.
- Affonso, D. D., De, A. K., Horowitz, J. A., & Mayberry, L. J. (2000). An international study exploring levels of postpartum depressive symptomatology. Journal of Psychosomatic Research, 49(3), 207-216.
- Alder, E. & Truman, J. (2002). Counseling for postnatal depression in the voluntary sector. Psychology & Psychotherapy: Theory, Research & Practice, 75(2), 207-220.
- Appleby, L., Gregoire, A., Platz, C., Prince, M., & Kumar, R. (1994). Screening women for high risk of postnatal depression. Journal of Psychosomatic Research, 38(6), 539-545.
- Appleby, L., Warner, R., Whitton, A., & Faragher, B. (1997). Fluoxetine vs. counseling for postnatal depression. New Zealand Medical Journal, 110(1046), 221.
- Appleby, L., Warner, R., Whitton, A., & Faragher, B. (1997). A controlled study of fluoxetine and cognitive-behavioral counseling in the treatment of postnatal depression. British Medical Journal, 314(7085), 932-936.
- Appleby, L., Hirst, E., Marshall, S., Keeling, F., Brind, J., Butterworth, T., et al., (2003). The treatment of postnatal depression by health visitors: Impact of brief training on skills and clinical practice. Journal of Affective Disorders, 77(3), 261-266.
- Abrams, L. S., & Curran, L. (2007). Not just a middle class affliction: Crafting a social work research agenda on postpartum depression. Journal of Health and Social Work, 32, 289–296.
- Abela, J. R. Z., & D'Allesandro, D. U. (2002). Beck's cognitive theory of depression: The diathesis-stress and causal mediation components. British Journal of Clinical Psychology, 41, 111-128.
- Adewuya, A.O., Ola, B.A., Aloba, O.O., Dada, A.O., & Fasoto, O.O. (2007).
   Prevalence and correlates of depression in late pregnancy among Nigerian women. Depression and Anxiety, 24(1), 15-21.



- American Psychiatric Association. (2000). **Diagnostic and statistical manual of** mental disorders (4th ed., text revision). Washington, DC: Author.
- American Psychiatric Association (1994). Diagnostic and Statistical Manual of Mental Disorders, 4th Edition. Washington, DC: American Psychiatric Association.
- APA. (1994). Diagnostic and statistical manual of mental disorders (4th ed.). Washington, DC: American Psychiatric Press.
- Areias, M. E., Kumar, R., Barros, H., & Figueiredo, E. (1996). Comparative incidence of depression in women and men, during pregnancy and after childbirth. Validation of the Edinburgh Postnatal Depression Scale in Portuguese mothers. British Journal of Psychiatry, 169(1), 30-3.
- Abela, J. R. Z., & D'Allesandro, D. U. (2002). Beck's cognitive theory of depression: The diathesis-stress and causal mediation components. British Journal of Clinical Psychology, 41, 111-128.
- Adewuya, A.O., Ola, B.A., Aloba, O.O., Dada, A.O., & Fasoto, O.O. (2007).
   Prevalence and correlates of depression in late pregnancy among Nigerian women. Depression and Anxiety, 24(1), 15-21.
- American Psychiatric Association. (2000). **Diagnostic and statistical manual of** mental disorders (4th ed., text revision). Washington, DC: Author.
- American Psychiatric Association, 1994. Diagnostic and statistical manual of mental disorders, fourth edition. New York: American Psychiatric Association.
- Beck, A. T., Steer, R. A., & Garbin, M. C. (1988). Psychometric properties of the Beck Depression Inventory. Twenty-five years of evaluation. Clinical Psychology Review, 8, 77-100.
- Beck, C. T. (1992). The lived experience of postpartum depression: a phenomenological study. Nursing Research, 41(3), 166-170.
- Beck, C. T., Reynolds, M. A., & Rutowski, P. (1992). Maternity blues and postpartum depression. JOGNN - Journal of Obstetric, Gynecologic, & Neonatal Nursing, 21(4), 287-293.
- Beck, C. T. (1993). Teetering on the edge: a substantive theory of postpartum depression. Nursing Research, 42(1), 42-48.



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- . Beck, C.T. 1995. The effects of postpartum depression on maternal-infant interaction: a meta-analysis. Nursing Research 44:298–304.
- Beck, C. T. (1996). Postpartum depressed mothers' experiences interacting with their children. Nursing Research, 45(2), 98-104.
- Beck, C. T. (1996). A meta-analysis of predictors of postpartum depression. Nursing Research, 45(5), 297-303.
- Beck, A. T., Steer, R. A., Ball, R., & Ranieri, W. (1996). Comparison of Beck Depression Inventories –IA and -II in psychiatric outpatients. J Pers Assess, 67(3), 588-597.
- Beck, C. T. (1998). A checklist to identify women at risk for developing postpartum depression. Journal of Obstetric, Gynecologic, & Neonatal Nursing, 27(1), 39-46.
- Beck, C. T. & Gable, R. K. (2000). Postpartum Depression Screening Scale: Development and psychometric testing. Nursing Research, 49(5), 272-282.
- Beck, C. T., & Gable, R. K. (2001a). Comparative analysis of the performance of the Postpartum Depression Screening Scale with two other depression instruments. Nursing Research, 50(4), 242-250.
- Beck, C. T., & Gable, R. K. (2001b). Further validation of the Postpartum Depression Screening Scale. Nursing Research, 50(3), 155-164.
- Beck, C. T. (2001).Predictors of postpartum depression: An update. Nursing Research, 50(5), 275-285.
- Beck, C. T. & Gable, R. K. (2001).Further validation of the Postpartum Depression Screening Scale. Nursing Research, 50(3), 155-164
- Beck, C. T. (2002). Postpartum depression: A met synthesis. Qualitative Health Research, 12(4), 453-472.
- Bergant, A.M., Nguyen, T., Heim, K., Ulmer, H. & Dapunt, O. (1998). German language version and validation of the Edinburgh Postnatal Depression Scale. Dtsch Med Wochenschr, 123(3), 35-40.
- Beck, C. T. (2004). Postpartum depressed mothers' experiences interacting with their children. Nursing Research, 45(2), 98-104.
- Berggren-Clive, K. (1998). Out of the darkness and into the light: Women's experiences with depression after childbirth .Canadian Journal of Community Mental Health, 17(1), 103-120.



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- Bloch, M., Schmidt, P. J., Danaceau, M., Murphy, J., Nieman, L., & Rubinow, D.
   R. (2000). Effects of gondola steroids in women.
- Bozoky, I. & Corwin, E. J. (2002). Fatigue as a predictor of postpartum depression. Journal of Obstetric, Gynecologic, &Neonatal Nursing, 31(4), 436-443.
- Boyce, P. M. & Todd, A. L. (1992). Increased risk of postnatal depression after emergency caesarean section. Medical Journal of Australia, 157(3), 172-174.
- Boyce, P., Stubbs, J., & Todd, A. (1993). The Edinburgh Postnatal Depression Scale: Validation for an Australian sample. Australian & New Zealand Journal of Psychiatry, 27(3), 472-476.
- Boyce, P. (1994). Personality dysfunction, marital problems and postnatal depression. In J. Cox & J. Holden (Eds.), Perinatal.
- Brockington, I. F., Cernik, K. F., Schofield, E. M., Downing, A. R., Francis, A. F., & Keelan, C. (1981). Puerperal psychosis. Phenomena and diagnosis. Archives of General Psychiatry, 38(7), 829-833.
- Brockington, I. F., Winokur, G., & Dean, C. (1982). Puerperal psychosis in motherhood and mental illness. London: Academic Press.
- Brown, S., & Lumley, J. (2000). Physical health problems after childbirth and maternal depression at six to seven months postpartum. British Journal of Obstetrics & Gynecology, 107(10), 1194-1201.
- Brugha, T. S., Sharp, H. M., Cooper, S. A., Weisender, C., Britto, D., Shinkwin, R., Sherrif, T., & Kirwan, P.H. (1998). The Leicester 500 Project. Social support and the development of postnatal depressive symptoms, a prospective cohort survey. Psychol Med, 28(1), 63-79.
- Berggren-Clive, K. (1998).Out of the darkness and into the light: Women's experiences with depression after childbirth. Canadian Journal of Community Mental Health, 17(1), 103-120.Interventions for Postpartum Depression-46-47.
- Boury, M., Treadwell, T., & Kumar, V. K. (2001). Integrating psychodrama cognitive therapy: An exploratory study. International Journal of Action Methods, 54, 13-28.



- Bloch, M., Schmidt, P. J., Danaceau, M., Murphy, J., Nieman, L., & Rubinow, D.
   R. (2000). Effects of gondola steroids in women with a history of postpartum depression. American Journal of Psychiatry, 157(6), 924-930.
- Belle, D., & Doucet, J. (2003). Poverty, inequality, and discrimination as sources of depression among U.S. women. Psychology of Women Quarterly, 27, 101–113.Psychiatry: Use and misuse of the Edinburgh Postnatal Depression Scale(pp. 82-102). London: Gaskell.
- Biomedical Information Corp. (1985). Patient information on depression. Biomedical Information Corp.
- Bozoky, I. & Corwin, E. J. (2002). Fatigue as a predictor of postpartum depression. Journal of Obstetric, Gynecologic, &Neonatal Nursing, 31(4), 436-443.
- Buist, A., Westley, D., & Hill, C. (1999). Antenatal prevention of postnatal depression. Archives of Women's Mental Health, 1(4), 167-173.
- Buist, A., Westley, D., & Hill, C. (1999). Antenatal prevention of postnatal depression. Archives of Women's Mental Health, 1(4), 167-173.
- Byrne, A. & Byrne, DG. (1993). The effect of exercise on depression, anxiety and other mood states: A review. Journal of Psychosomatic Research, 37(6), 565-574.
- .Bhatia, S. C., Baldwin, S. A., & Bhatia, S. K. (1999). Electroconvulsive therapy during the third trimester of pregnancy. J Ect, 15(4), 270-274.
- Campbell, S. B., Cohn, J. F., Flanagan, C., Popper, S., & Meyers, T. (1992).
   Course and correlates of postpartum depression during the transition to parenthood. Development and Psychopathology, 4, 29-47.
- Comer, R. J. (1992). Abnormal psychology. New York: W. H. Freeman & Company
- Cogill, S. R., Caplan, H. L., Alexandra, H., Robson, K. M., & Kumar, R. (1986). Impact of maternal postnatal depression on cognitive development of young children. British Medical Journal Clinical Research Ed., 292(6529), 1165-1167.
- Cooper, P. J. & Murray, L. (1995). Course and recurrence of postnatal depression. Evidence for the specificity of the diagnostic concept. British Journal of Psychiatry, 166(2), 191-195.



- Cooper, P. J. & Murray, L. (1998). Postnatal depression. British Medical Journal, 316(7148), 1884-1886.
- Chisholm, C. A., & Kuller, J. A. (1997). A guide to the safety of CNS-active agents during breastfeeding. Drug Safe, 17(2), 127-142.
- Cohn, J.F., Campbell, S.B., Matias, R., and Hopkins, J. Face-to-face interactions of postpartum depressed and no depressed mother-infant pairs at 2 months. Developmental Psychology 26:15–23, 1990.
- Cohn, J.F., Campbell, S.B., and Ross, S. Infant response in the still-face paradigm at 6 months predicts avoidant and secure atachment at 12 months. Special Issue: Atachment and developmental psychopathology. Development and Psychopathology 3:367–376, 1991.
- Collins, N. L., Dunkel-Schetter, C., Lobel, M., & Scrimshaw, S. C. (1993). Social support in pregnancy: Psychosocial correlates of birth outcomes and postpartum depression. Journal of Personality & Social Psychology, 65(2), 1243-1258.
- Chandran M, Tharyan P, Muliyil J, Abraham S. Post-partum depression in a cohort of women from a rural area of Tamil Nadu, India. Br J Psychiatry 2002, 181:499–504.
- Chrisler, J. C., & Johnston-Robledo, I. (2002). Raging hormones? Feminist perspectives on premenstrual syndrome and postpartum depression. In M. Ballou & L. Brown (Eds.), Rethinking mental health and disorder: Feminist perspectives(pp. 174–197). New York: Guilford.
- Chaudron, L. H., Kitzman, H. J., Peifer, K. L., Morrow, S., Perez, L. M., & Newman, M. C. (2005). Self recognition of and provider response to maternal depressive symptoms in low income Hispanic women. Journal of Women's Health, 14, 331–338.
- Cox, J. L., Murray, D., & Chapman, G. (1993). A controlled study of the onset, duration and prevalence of postnatal depression. British Journal of Psychiatry, 163, 27-31.
- Cox, J. L., Holden, J. M., & Sagovsky, R. (1987). Detection of postnatal depression. Development of the 10-item Edinburgh Postnatal Depression Scale. British Journal of Psychiatry, 150, 782-786.



- Cooper, P. J. & Murray, L. (1998).Postnatal depression. British Medical Journal, 316(7148), 1884-1886.
- Chandran M, Tharyan P, Muliyil J, Abraham S. Post-partum depression in a cohort of women from a rural area of Tamil Nadu, India. Br J Psychiatry 2002, 181:499–504.
- Chrisler, J. C., & Johnston-Robledo, I. (2002). Raging hormones? Feminist perspectives on premenstrual syndrome and postpartum depression. In M. Ballou & L. Brown (Eds.), Rethinking mental health and disorder: Feminist perspectives (pp. 174–197). New York: Guilford.
- Clark, D. A., Beck, A. T., & Brown, G. (1989). Cognitive mediation in general psychiatric outpatients: A test of the content-specificity hypothesis. Journal of Personality and Social Psychology, 56, 958-964.
- Dennis, C-L. (2003a). The detection, prevention, and treatment of postpartum depression. In D. Stewart, E. Robertson, C.-L.
- Dennis, C-L. (2003b). The effect of peer support on postpartum depression: A pilot randomized controlled trial. Canadian Journal of Psychiatry, 48(2), 115-124.
- Dennis, C-L. (2003c).Peer support within a health care context: A concept analysis. International Journal of Nursing Studies , 40(3), 321-332.
- Dennis, S. Grace, & T. Wallington (Eds.), **Postpartum depression: Critical** literature review and recommendations. Toronto: Toronto Public Health
- Davies, B. & Edwards, N. (2004). RNs measure effectiveness of best practice guidelines. Registered Nurses Journal, 16(1), 21-23.
- Dean, A., Dumin, M. Y., Ensel, W. M., Light, S. C., Lin, N., Tausig, M., & Woelfel, M. (1986). Social support, life events, & depression. New York: Academic Press, Inc.
- Deahl, M. (2000). Psychological debriefing: controversy and challenge. Aust N Z J Psychiatry, 34(6), 929-939.
- Duffy, C. L. (1983). Postpartum depression: Identifying women at risk. Genesis, 11, 21.
- Dean, A., Dumin, M. Y., Ensel, W. M., Light, S. C., Lin, N., Tausig, M., & Woelfel, M. (1986). Social support, life events, & depression. New York: Academic Press, Inc.



- Doris Grinspum, 2005: Intervention for post partum depression, nursing best practice (4), 40-44.
- Davies, B. & Edwards, N. (2004). RNs measure effectiveness of best practice guidelines. Registered Nurses Journal, 16(1), 21-23.
- Danaci AE, Dinc G, Deveci A et al (2002). Postnatal depression in Turkey: epidemiological and cultural aspect. Soc Psychiatry Epidemiol; 37:125-129.
- Eberhard-Gran, M., Eskild, A., Tambs, K., Schei, B., & Opjordsmoen, S. (2001). The Edinburgh Postnatal Depression Scale: Validation in a Norwegian community sample. Nordic Journal of Psychiatry, 55(2), 113-117.
- Eberhard-Gran, M., Eskild, A., Tambs, K., Opjordsmoen, S., & Samuelsson, S. O. (2001). Review of validation studies of the Edinburg.
- Eberhard-Gran, M., Eskild, A., Tombs, K., Samuelsson, S. O., & Opjordsmoen, S. (2002). Depression in postpartum and no postpartum women: Prevalence and risk factors. Acta Psychiatrica Scandinavica, 106(6), 426-433.
- Epperson, C. N., Anderson, G. M., & McDougle, C. J. (1997). Sertraline and breast feeding. N Engl J Med, 336(16), 1189-1190.
- Epperson, N., Czarkowski, K. A., Ward-O'Brien, D., Weiss, E., Gueorguieva, R., Jatlow, P., & Anderson, G.M. (2001). Maternal sertraline treatment and serotonin transport in breast-feeding mother-infant pairs. American Journal of Psychiatry, 158(10), 1631-1637.gh Postnatal Depression Scale. Acta Psychiatrica Scandinavica, 104(4), 243-249.
- Evins, G. G., & Theofrastous, J. P. (1997). Postpartum depression: A review of postpartum screening. Primary Care Update for Ob/Gyns, 4(6), 241-246.
- Epkins, C. C. (2000). Cognitive specificity in internalizing and externalizing problems in community and clinic-referred children. Journal of Clinical Child Psychology, 29, 199-208.
- Elliott, S. A. & Lever ton, T. J. (2000). Is the EPDS a magic wand? 2. 'Myths' and the evidence base. Journal of Reproductive and Infant Psychology, 18(4), 297-307.ith a history of postpartum depression. American Journal of Psychiatry, 157(6), 924-930.
- Fowles E.R. (1996). "Relationships among prenatal maternal atachment, presence of postnatal depressive symptoms, and maternal role atainment".



**Journal of the Society of Pediatric Nurses**1 (2):75–82. Doi:10.1111/j.1744-6155.1996.tb00004.x. PMID 8933479.

- Field, M. & Lohr, K. N. (1990). Guidelines for clinical practice: Directions for a new program Washington DC: Institute of Medicine: National Academy Press.
- Fisher, J. R., Feekery, C. J., & Rowe-Murray, H. J. (2002). Nature, severity and correlates of psychological distress in women admitted to a private mother-baby unit. Journal of Pediatrics & Child Health, 38(2), 140-145.
- Gotlib, I. H., Whiffen, V. E., Mount, J. H., Milne, K., & Cordy, N. I. (1989). Prevalence rates and demographic characteristics associated with depression in pregnancy and the postpartum. Journal of Consulting & Clinical Psychology, 57(2), 269-27.
- Gotlib I.H., Whiffen V.E., Wallace P.M., Mount J.H. (1991). "Prospective investigation of postpartum depression: factors involved in onset and recovery". Journal of Abnormal Psychology 100 (2): 122–132. Doi: 10.1037/0021-843X.100.2.122. PMID 2040762.
- Green, K., Broome, H., & Mirabella, J. (2006). Postnatal depression among mothers in the United Arab Emirates: socio-cultural and physical factors. Psychological Health Medicine, 11(4), 425-431.
- Gonca, S., & Savasir, I. (2001). The relationship between interpersonal schemas and depressive symptomatology. Journal of Counseling Psychology, 48, 359-364.
- Gjerdingen, D. (2003). The effectiveness of various postpartum depression treatments and the impact of antidepressant drugs on nursing infants. Journal of the American Board of Family Practice, 16(5), 372-382
- Goodman, J. H. (2004). Postpartum depression beyond the early postpartum period. Journal of Obstetric, Gynecologic, and Neonatal Nursing, 33(4), 410-420.
- Harris, B., Fung, H., Johns, S., Kologlu, M., Bhati, R., McGregor, A. M., Richards, C. J., & Hall, R. (1989). Transient post-partum thyroid dysfunction and postnatal depression. Journal of Affective Disorders, 17(3), 243-249.



- Harris, B., Huckle, P., Thomas, R., Johns, S., & Fung, H. (1989). The use of rating scales to identify postnatal depression. British Journal of Psychiatry, 154, 813-817.
- Harris, B., Johns, S., Fung, H., Thomas, R., Walker, R., Read, G., & Riad-Fahmy, D. (1989). The hormonal environment of post-natal depression. British Journal of Psychiatry, 154, 660-667.
- Hipwell, A. E., Goossens, F. A., Melhuish, E. C., & Kumar, R. (2000). Severe maternal psychopathology and infant-mother atachment. Development and Psychopathology, 12(2), 157-175
- .Hedges, L. V. & Olkin, I. (1985). Statistical Methods for Meta-analysis. New York: Academic Press.
- Hopkins, J., Campbell, S. B., & Marcus, M. (1987). Role of infant-related stressors in postpartum depression. Journal of Abnormal Psychology, 96(3), 237-241.
- Hostetter, A. L. & Stowe, Z. N. (2002). Postpartum mood disorders. Identification and treatment. In F.Lewis-Hall, T. S. Williams, J. A. Panetta, & J. M. Herrera (Eds.), Psychiatric illness in women. Emerging treatments and research. Washington, DC: American Psychiatric Publishing Inc.
- Hayes, B. A., Muller, R., & Bradley, B. S. (2001). Perinatal depression: a randomized controlled trial of an antenatal education intervention for primiparas. Birth, 28(1), 28-35.
- Holden, J. (1987). Postnatal depression: 'She just listened'. Community Outlook, 6-10.
- Holden, J. M., Sagovsky, R., & Cox, J. L. (1989). Counseling in a general practice setting: controlled study of health visitor intervention in treatment of postnatal depression. BMJ, 298(6668), 223-226.
- Holden, J. M. (1991). Postnatal depression: Its nature, effects, and identification using the Edinburgh Postnatal Depression scale. Birth, 18(4), 211-22.
- Holden, J. (1994). Using the Edinburgh Postnatal Depression Scale in clinical practice. In J. Holden (Ed.), Perinatal Psychiatry Use and Misuse of the Edinburgh Postnatal Depression Scale. London: Gaskell. Cindy-Lee Dennis, PhD 182.



- Hoffman, Y., and Drotar, D. The impact of postpartum depressed mood on mother-infant interaction: like mother like baby? Infant Mental Health Journal 12:65–80, 1991.
- Hagen, E.H. The Functions of Postpartum Depression and the Implications for General Depression. Paper presented at the Human Behavior and Evolution Society 10th Annual Conference, University of California, Davis, 1998.
- Hegg, A. (1991, December). More than a blue mood. NEA Today. 23.
- Hagg, S., Granberg, K., & Charlesbourg, L. (2000). Excretion of fluvoxamine into breast milk. Br J Cline Pharmacology, 49(3), 286-288.
- Hopkins, J., Campbell, S. B., & Marcus, M. (1989). Postpartum depression and postpartum adaptation: overlapping constructs? Journal of Affective Disorders, 17(3), 251-254.
- Hostetter, A. L. & Stowe, Z. N. (2002). Postpartum mood disorders. Identification and treatment. In F.Lewis-Hall, T. S. Williams. A. Panetta, & J. M. Herrera (Eds.), Psychiatric illness in women. Emerging treatments and research. Washington, DC: American Psychiatric Publishing Inc.
- Hundt, G. L., Becker leg, S., Kassem, F., Abu Jafar, A., Belmaker, I., Abu Saa, K. et al. (2000). Women's health custom made: Building on the 40 days postpartum for Arab women. Health Care Women International, 21(6), 529-542.
- Niveen M E Abu-Rmeileh, Weeam Hammoudeh, Rita Giacaman
- Published Online July 2, 2010.Humanitarian crisis and social suffering in Gaza Strip: . . aftermath of latest Israeli war.
- Hipwell, A. E., Goossens, F. A., Melhuish, E. C., & Kumar, R. (2000). Severe maternal psychopathology and infant-mother atachment. Development and Psychopathology, 12(2), 157-175.
- Holden, J. M., Sagovsky, R., & Cox, J. L. (1989). Counseling in a general practice setting: controlled study of health visitor intervention in treatment of postnatal depression. BMJ, 298(6668), 223-226.
- Holroyd, E., Katie, F. K., Chun, L. S., & Ha, S. W. (1997). "Doing the month": an exploration of postpartum practices in Chinese women. Health Care International, 18(3), 301-313.



- Hayes, B. A., Muller, R., & Bradley, B. S. (2001). Perinatal depression: a randomized controlled trial of an antenatal education intervention for primiparas. Birth, 28(1), 28-35.
- Johnston, A. & Goldberg, D. (1976). Psychiatric screening in general practice. A controlled trial.LancHundt, G. L., Becker leg, S., Kassem, F., Abu Jafar, A., Belmaker, I., Abu Saa, K. et al. (2000). Women's health custom made: Building on the 40 days postpartum for Arab women. Health Care Women International, 21(6), 529-542.et, 1(7960), 605-608.
- Jennings, KD; Ross, S; Popper, S; Elmore, M (1999). "Thoughts of harming infants in depressed and no depressed mothers". Journal of affective disorders 54 (1-2): 21-8. doi:10.1016/S0165-0327(98)00185-2. PMID 10403143
- Kennerley, H. & Gath, D. (1989). Maternity blues. I. Detection and measurement by questionnaire. British Journal of Psychiatry,155(Sep.), 356-362.
- .Klerman, T. B., & Weiss man, M. M. (1993). New applications of interpersonal psychotherapy. Washington, DC: American Psychiatric Press Inc
- Kumar, R., and Robson, K.M. A prospective study of emotional disorders in childbearing women. British Journal of Psychiatry 144:35–47, 1984. DC: American Psychiatric Press Inc.
- Kumar, R. (1994).Postnatal mental illness: A transcultural perspective. Social Psychiatry & Psychiatric Epidemiology, 29(6), 250-264
- Kramer, M. S. (2003). The epidemiology of adverse pregnancy outcomes: An overview. Journal of Nutrition, 133, 15928–15968.
- Kroenke K, Spitzer RL, re Williams JB. The Patient Health Questionnaire-2: validity of a two-item depression screener. Med Care.2003;41 (11):1284–1292.
- Kendell, R. E., Chambers, J. C., & Platz, C. (1987). Epidemiology of puerperal psychoses. British Journal of Psychiatry, 150, 662-673.
- Kaewern, P., Moyle, W., & Creedy, D. (2003). Traditional postpartum practices among thai women. Journal of Advanced Nursing, 41(4), 358-366.
- Lee, D. T., Yip, A. S. K., Chiu, H. F. K., Leung, T. Y. S., & Chung, T. K. H. (2001). Screening for postnatal depression: Are specific instruments mandatory? Journal of Affective Disorders, 63(1-3), 233-238.



- Lee, D. T., Yip, A. S., Chan, S. S., Tsui, M. H., Wong, W. S., & Chung, T. K. (2003). Post delivery screening for postpartum depression. Psychosomatic Medicine, 65(3), 357-3618.
- Lewinsohn, P. M., Joiner, T. E., & Rohde, P. (2001). Evaluation of cognitive diathesis-stress models in predicting major depressive disorder in adolescents. Journal of Abnormal Psychology, 110, 203–215.
- Lowry, M. E. (1984). Major depression: Prevention & treatment. St. Louis: Warren H. Green, Inc.
- Livingston, J. C., Johnstone, W. M., Jr., & Hadi, H. A. (1994). Electroconvulsive therapy in a twin pregnancy: a case report. Am J Perinatal, 11(2), 116-118.
- Lorion, R. P. (1991). Targeting preventive interventions: enhancing risk estimates through theory. Am J .Community Psychol, 19(6), 859-865.
- MacArthur, C., Winter, H. R., Bick, D. E., Knowles, H., Lilford, R., Henderson, C. et al. (2002). Effects of redesigned community postnatal care on women's health 4 months after birth: A cluster randomized controlled trial. Lancet, 359(9304), 378-385.
- McLean, P. D., & Hakstian, A. R. (1979). Clinical depression: comparative efficacy of outpatient treatments. J Consult Clin Psychol, 47(5), 818-836.
- Mathey, S., Barnett, B. E., & Elliott, A. (1997). Vietnamese and Arabic women's responses to the Diagnostic Interview Schedule (depression) and self-report questionnaires: Cause for concern. Australian & New Zealand Journal of Psychiatry, 31(3), 360-369.
- Mrazek, P. J., & Haggerty, R. J. (1994). Reducing risks for mental disorders frontiers for prevention intervention research. Washington, D.C: National Academy Press.
- McIntosh, J. (1993). The experience of motherhood and the development of depression in Moilanen, D. L. (1993). Depressive information processing among nonclinical, no referred college students. Journal of Counseling Psychology, 40, 340-347.
- McIntosh, C. N., & Fischer, D. G. (2000). Beck's cognitive triad: One versus three factors. Canadian Journal of Behavioral Science, 32, 153-157.
- Moilanen, D. L. (1993). Depressive information processing among nonclinical, no referred college students. Journal of Counseling Psychology, 40, 340-347.



- Moilanen, D. L. (1995). Validity of Beck's cognitive theory of depression with no referred adolescents. Journal of Counseling & Development, 73, 438-442, the postnatal period. Journal of Clinical Nursing, 2(4), 243-249.
- McGinn, L. K. (2000). Cognitive behavioral therapy of depression: Theory, treatment, and empirical status. American Journal of Psychotherapy, 54, 254-260.
- McLean, P. D., & Hakstian, A. R. (1979). Clinical depression: comparative efficacy of outpatient treatments consults Clin Psychol, 47(5), 818-836.
- MacArthur, C., Winter, H. R., Bick, D. E., Knowles, H., Lilford, R., Henderson, C. et al. (2002). Effects of redesigned community postnatal care on women's health 4 months after birth: A cluster randomized controlled trial. Lancet, 359(9304), 378-385.
- Mills, E. P., Finchilescu, G., & Lea, S. J. (1995). Postnatal depression An examination of psychosocial factors. South African Medical Journal, 85(2), 99-105.
- Misri, S. (1995). Shouldn't I be happy? Emotional problems of pregnant and postpartum women. New York: Free Press.
- Murray, D. & Cox, J. (1990). Screening for depression during pregnancy with the Edinburgh Postnatal Depression Scale (EPDS). Journal of Reproductive and Infant Psychology8:63-65.
- Murray, L. & Carothers, A. D. (1990). The validation of the Edinburgh Postnatal Depression Scale on a community sample. British Journal of Psychiatry, 157, 288-290.
- Murray, L. Intersubjectivity, 1991 object relations theory, and empirical evidence from mother-infant interactions. Special Issue: The effects of relationships on relationships. Infant Mental Health Journal 12:219–232,
- Murray, L. (1992). The impact of postnatal depression on infant development. Journal of Child Psychology & Psychiatry & Allied Disciplines, 33(3), 543-561.
- Murray, L., Fiori-Cowley, A., Hooper, R., & Cooper, P. (1996). The impact of postnatal depression and associated adversity on early mother-infant interactions and later infant outcome. Child Development, 67(5), 2512-2526.



- Murray, L., Sinclair, D., Cooper, P., Ducournau, P., Turner, P., & Stein, A. (1999). The socioemotional development of 5-year-old children of postnatal depressed mothers. Journal of Child Psychology & Psychiatry & Allied Disciplines, 40(8), 1259-1271.
- Mathey, S., Barnett, B. E., & Elliott, A. (1997). Vietnamese and Arabic women's responses to the Diagnostic Interview Schedule (depression) and self-report questionnaires: Cause for concern. Australian & New Zealand Journal of Psychiatry, 31(3), 360-369.
- Miller, L. J. (2002). Postpartum depression. Journal of the American Medical Association, 287(6), 762-765.
- Morse, C. A., Buist, A., & Durkin, S. (2000). First-time parenthood: influences on pre-and postnatal adjustment in fathers and mothers. J Psychosom Obstet Gynaecol, 21(2), 109-120
- MacArthur, C., Winter, H. R., Bick, D. E., Knowles, H., Lilford, R., Henderson, C. et al. (2002). Effects of redesigned community postnatal care on women's health 4 months after birth: A cluster randomized controlled trial. Lancet, 359(9304), 378-385.
- Mayberry, L. J. & Affonso, D. D. (1993). Infant temperament and postpartum depression: A review. Health Care for Women International, 14(2), 201-211.
- Nahas, V. & Amasheh, N. (1999). Culture care meanings and experiences of postpartum depression among Jordanian Australian women: Atranscultural study. Journal of Tran cultural Nursing, 10(1), 37-45.
- Nonacs, R. & Cohen, L. S. (1998). Postpartum mood disorders: Diagnosis and treatment guidelines. Journal of Clinical Psychiatry, 59, Suppl 2, 34-40.
- National Institute of Mental Health. (1989). Plan talk about depression.
   Rockville, MD: U.S. Department of Health & Human Services. Nancy, About.com Guide Updated September 01, 2011About.com Health's Disease and Condition content is reviewed by the Medical Review Board
- O'Hara, M. W. & Zekoski, E. M. (1988). Postpartum depression comprehensive review. In I.F.Brockington & R. Kumar (Eds.), Motherhood and Mental Illness2:Causes and Consequences.



- O'Hara, M. W., Zekoski, E. M., Phillips, L. H., & Wright, E. J. (1990). Controlled prospective study of postpartum mood disorders: Comparison of childbearing and non-childbearing women. Journal of Abnormal Psychology, 99(1), 3-15.
- O'Hara, M. W., Schechter, J. A., Lewis, D. A., & Wright, E. J. (1991b).
   Prospective study of postpartum blues. Biologic and psychosocial factors.
   Archives of General Psychiatry, 48(9), 801-806.
- O'Hara, M. W. (1994). Postpartum depression: Causes and consequences. New York: Springer-Verlag.
- O'Hara, M. W. & Swain, A. M. (1996). Rates and risk of postpartum depression A meta-analysis. International Review of Psychiatry, 8(1), 37-54.
- O'Boyle, A.L., Magann, E.F., Ricks, R.E., Doyle, M., & Morrison, J.C. (2005).
   Depression screening in the pregnant soldier wellness program. Southern Medical Journal, 98(4), 416-418.
- Okano, T., Nomura, J., Kumar, R., Kaneko, E., Tamaki, R., Hanafusa, I. et al. (1998). An epidemiological and clinical investigation of postpartum psychiatric illness in Japanese mothers. Journal of Affective Disorders, 48(2-3), 233-240.
- Okano, T., Nomura, J., Kumar, R., Kaneko, E., Tamaki, R., Hanafusa, I. et al. (1998). An epidemiological and clinical investigation of postpartum psychiatric illness in Japanese mothers. Journal of Affective Disorders, 48(2-3), 233-240.
- Papalia, D. E, & Olds, S. W. (1988). Psychology. New York: McGraw-Hill Book Company
- Pop, V. J., de Rooy, H. A., Vader, H. L., van der Heide, D., van Son, M. M., & Komproe, I. H. (1993). Microsomal antibodies during gestation in relation to postpartum thyroid dysfunction and depression. Acta Endocrinol (Copenh), 129(1), 26-30
- Pugh, L. C., Milligan, R., Parks, P., Lenz, E., & Kitzman, H. (1999). Clinical approaches in the assessment of childbearing fatigue. Journal of Obstetric, Gynecologic and Neonatal Nursing 28(1), 74-80.
- Prendergast, J. & Austin, M.-P. (2001). Early childhood nurse-delivered cognitive behavioral counseling for post-natal depression. Australian Psychiatry, 9(3), 255-259



- Prendergast, J. & Austin, M.-P. (2001). Early childhood nurse-delivered cognitive behavioral counseling for post-natal depression. Australian Psychiatry, 9(3), 255-259
- Palestine abstracts and accompanying Comments see http://www.thelancet.com/health-in-the-occupied-palestinian-territory-2010
- Paykel, E.S., Emms, E.M., Fletcher, J., and Rassaby, E.S. 1980 Life events and social support in puerperal depression. British Journal of Psychiatry 136:339–346.
- Paxton, R., Shrubb, S., Griffiths, H., Cameron, L., & Maunder, L. (2000). Tiered approach: Matching mental health services to needs. Journal of Mental Health, 9(2), 137-144.
- Pedersen, C. A., Stern, R. A., Pate, J., Senger, M. A., Bowes, W. A., & Mason, G. A. (1993). Thyroid and adrenal measures during late pregnancy and the puerperium in women who have been major depressed or who become dysphonic postpartum. Journal of Affective Disorders, 29, 201-211.
- Pignone, M. P., Gaynes, B. N., Rushton, J. L., Burchell, C. M., Orleans, C. T., Mulrow, C. D. et al. (2002). Screening for depression in adults: A summary of the evidence for the U.S. Preventive Services Task Force. Annals of Internal Medicine, 136(10), 765-776.
- -passia2008 "Demographic and Socioeconomic Status of the Palestinian People at the end of 2006", December 2006 25 Ibid. PCBS record the fertility rate in 2003 as 4.6 births 26 Refer to PCBS 2005 - Domestic Violence Survey 27 The Palestinian Social Pulse, September 2007 on www.neareastconsulting.com 28 Refer to www.neareastconsulting.com
- Registered Nurses' Association of Ontario (2002d). Toolkit: Implementation of clinical practice guidelines. Toronto: Registered Nurses' Association of Ontario.
- Regmi, S., Sligl, W., Carter, D., Grut, W. & Seear, M. (2002). A controlled study
  of postpartum depression among Nepalese women: Validation of the
  Edinburgh Postpartum Depression scale in Kathmandu. Tropical Medicine &
  International Health, 7(4), 378-82.



- Riecher-Rossler, A., & Hofecker FallaHBour, M. (2003). Postpartum depression: Do we still need this diagnostic term? Journal of Affective Disorders, 108, 51–56.
- Rich-Edwards, J. W., Kleinman, K., Abrams, A., Harlow, B.L., McLaughlin, T. J., Joffe, H., et al. (2006). Sociodemographic predictors of antenatal and postpartum depressive symptoms among women in a medical group practice. Journal of Epidemiology and Community Health, 60,221–227.
- Rees, B. L. (1995). Effect of relaxation with guided imagery on anxiety, depression, and self-esteem in primiparas. J Holist Nurse, 13(3), 255-267.
- Reynolds, W. M., & Coats, K. I. (1986). A comparison of cognitive-behavioral therapy and relaxation training for the treatment of depression in adolescents. J Consult Clin Psychol, 54(5), 653-660.
- Righetti-Veltema, M., Conne-Perreard, E., Bousquet, A., & Manzano, J. (1998).
   Risk factors and predictive signs of postpartum depression. Journal of Affective Disorders, 49(3), 167-180.
- Ritter, C., Hobfoll, S. E., Lavin, J., Cameron, R. P., & Hulsizer, M. R. (2000). Stress, psychosocial resources, and depressive symptomatology during pregnancy in low-income, inner-city women. Health Psychology, 19(6), 576-585.
- Robertson, E., Grace, S., Wallington, T., & Stewart, D. E. (2004). Antenatal risk factors for postpartum depression: A synthesis of recent literature. General Hospital Psychiatry, 26(4), 289-295.
- Rodrigues, M., Patel, V., Jaswal, S., & de Souza, N. (2003). Listening to mothers: Qualitative studies on motherhood and depression from Goa, India. Social Science Medicine, 57(10), 1797-1806.
- Ross, L. E., Gilbert Evans, S. E., Sellers, E. M., & Romach, M. K. (2003). Measurement issues in postpartum depression part 2: Assessment of somatic symptoms using the Hamilton Rating Scale for Depression. Archives of Women's Mental Health, 6(1), 59-64.
- Ross, L., Dennis, C-L., Robertson, E., & Stewart, D. E. (2005). Postpartum depression: A guide for front-line health and social service providers. Toronto: Centre for Addiction and Mental Health.



- Reed, M. (1994). Social skills training to reduce depression in adolescents. Adolescence, 29, 293-304.
- Schweitzer, R.D., Logan, G.P., and Strassberg, D. 1992. The relationship between marital intimacy and postnatal depression. Australian Journal of Marriage and Family 13:19–23.
- Spinelli, M. G. (1997). Interpersonal psychotherapy for depressed antepartum women: a pilot study. American Journal of Psychiatry, 154(7), 1028-1030
- Shah, C. P. (1998). Public health and preventive medicine in Canada (Fourth ed.). Toronto: University of Toronto Press.
- Song,D., Sands,R.G.,&Wong, Y. L. I. (2004).Utilization of mental health services by low income pregnant and postpartum women on medical assistance. Women & Health, 39, 1–23.
- Seguin, L., Potvin, L., St.-Denis, M., and Loiselle, J. Chronic stressors, social support, and depression during pregnancy. Obstetrics and Gynecology 85:583–589, 1995
- Seguin, L., Potvin, L., St Denis, M., & Loiselle, J. (1999). Depressive symptoms in the late postpartum among low socioeconomic status women. Birth, 26(3), 157-163.
- Saisto, T., Salmela-Aro, K., Nurmi, J. E., Kononen, T., & Halmesmaki, E. (2001).
   A randomized controlled trial of intervention in fear of childbirth. Obstetrics
   & Gynecology, 98(5 Pt 1), 820-8
- Stocky, A., & Lynch, J. (2000). Acute psychiatric disturbance in pregnancy and the puerperium. Baillieres Best Pract Res Clin Obstet Gynaecol, 14(1), 73-87.Cindy-Lee Dennis, PhD 19226.
- Seeley, S., Murray, L.,& Cooper, P. (1996). The outcomes for mothers of babies of health visitor intervention. The Health Visitor, 69(4), 135-138.
- Small, R., Brown, S., Lumley, J., & Astbury, J. (1994). Missing voices: What women say and do about depression after childbirth. Journal of Reproductive & Infant Psychology, 12, 19-22.
- Small R, Astbury J, Brown S, Lumley J(1994). Depression after childbirth.
   Does social context mater Med J Aust; 161: 473–477.
- Pub MedWeb of Science® Times Cited: 28



- Small, R., Brown, S., Lumley, J., & Astbury, J. (1994). Missing voices: What women say and do about depression after childbirth. Journal of Reproductive & Infant Psychology, 12, 19-22.
- Steinberg, S. I. & Bellavance, F. (1999). Characteristics and treatment of women with antenatal and postpartum depression. International Journal of Psychiatry in Medicine, 29(2), 209-233.
- Salmela-Aro, K., Nurmi, J., Saisto, T., & Halmesmaki, E. (2001). Goal reconstruction and depressive symptoms during the transition to motherhood: Evidence from two cross-lagged longitude studies. Journal of Personality and Social Psychology, 81, 1144-1159.
- Vanita Dharan Jain, MD; Chief Editor: David Chelmow, MD Psychosocial and Environmental Pregnancy Risks Updated: Jul 2, 2012 Medline
- Wilson, M., and Daly, M. The psychology of parenting in evolutionary perspective and the case of human filicide. In Infanticide and Parental Care, S. Parmigiani and F.S. vom Saal (Eds.). Chur, Switzerland: Harwood Academic Publishers, 1994, p 73–105.
- Watson, J. P., Elliott, S. A., Rugg, A. J., & Brough, D. I. (1984). Psychiatric disorder in pregnancy and the first postnatal year. British Journal of Psychiatry, 144, 453-462.
- Watson, E. & Evans, S. J. (1986). An example of cross-cultural measurement of psychological symptoms in post-partum mothers. Social Science of Medicine, 23, 869-874.
- Whiffen, V. E. & Gotlib, I. H. (1989). Infants of postpartum depressed mothers: Temperament and cognitive status. Journal of Abnormal Psychology, 98(3), 274-279.
- Whiffen, V.E. The comparison of postpartum with non-postpartum depression: a rose by any other name. Journal of Psychiatry and Neuroscience 16:160–165, 1991.
- Wisner, K. L., Parry, B. L., & Piontek, C. M. (2002). Clinical practice. Postpartum depression. New England Journal of Medicine, 347(3), 194-199.
- World health organization (1993). The ICD-10 Classification of Mental and Behavioral Disorders: Clinical Descriptions and Diagnostic Guidelines. Geneva. World health organization.



- Winner, K.L., Stowe, Z.N., 1997Psychobiology of postpartum mood
- Wetzel, J. W. (1984). Clinical handbook of depression. New York: Gardner Press.
- www.thelancet.com published online July 2, 2010.
- Yellowlees, P. M., & Page, T.(1990). Safe use of electroconvulsive therapy in pregnancy. Med J Aust 153(11-12), 679-680.



Annexes



### Annex (1)

أسماء السادة المحكمين لمقياس عوامل الحمل الخطرة التي تؤدي إلى اكتئاب ما بعد الولادة

| مكان العمل                      | اسم المحكم                 | الرقم |
|---------------------------------|----------------------------|-------|
| الجامعة الإسلامية /كلية التمريض | الدكتور /عبد الكريم رضوان  | .1    |
| الجامعة الإسلامية /كلية التمريض | الدكتور / ناصر أبو النور   | .2    |
| الجامعة الإسلامية /كلية التمريض | الدكتورة/ ميسون عبد العزيز | .3    |
| الجامعة الإسلامية /كلية التمريض | الدكتور / اشرف الجدي       | .4    |
| الجامعة الإسلامية/ كلية التربية | الدكتور / عاطف الأغا       | .5    |
| الجامعة الإسلامية/ كلية التربية | الدكتور /جميل الطهراوي     | .6    |
| الجامعة الإسلامية/ كلية التربية | الدكتور / سمير قوته        | .7    |
| الجامعة الإسلامية/ كلية التربية | الدكتور / أنور العبادسة    | .8    |
| مستشفى الطب النفسي              | الدكتور / عايش سمور        | .9    |
| مستشفى الطب النفسي              | الدكتورة/ خضرة العمصي      | .10   |

المنسارات المستشارات

Annex (2)

## Questionnaire

Islamic University – Gaza

**High Education** 

Master in community mental health nurse

**Faculty of Nursing** 

Dear mother,

The researcher\ Aida Ali Al Hamarna that is studying in (master degree in community mental health nurse) in the Islamic University is doing her master thesis in:

# **Risk Factors for Postpartum Depression**

## Among Women in Gaza Strip

And this study aims to identify the prevalence of Postpartum Depression in Gaza Strip, also to find out the most risky factors that tend to Postpartum Depression, and to figure out the effect of the demographic variables on development of the symptoms of Postpartum Depression, to notice some recommendations to specialists to prevent the spread of Postpartum Depression.

So thanks for participation and for filling this copy...

Researcher

Aida Ali Al Hamarna





#### EDINBURGH POSTNATAL DEPRESSION SCALE (EDINBURGH)

## Dear mother:

Presented a scale to measure risk factors that tends to postpartum depression, please fill in knowing that there are no true or false responses, and this measure is prepared for the research issues only.

| The question   | As<br>much<br>as I<br>always<br>could | Not quite<br>as much<br>now | Definitely<br>not so<br>much now | No<br>at all |
|--|---------------------------------------|-----------------------------|----------------------------------|--------------|
| 1- I have been able to laugh and see the funny side of things                                  |                                       |                             |                                  |              |
| 2- I have looked forward with enjoyment to things  |                                       |                             |                                  |              |
| 3- I have blamed myself unnecessarily when things went wrong                                   |                                       |                             |                                  |              |
| 4- I have been anxious or worried for no good reason   |                                       |                             |                                  |              |
|  | Most<br>of the<br>time                | Yes,<br>sometimes           | Sure it's<br>not                 | No<br>at all |
| 5- I have felt scared or panicky for no very good reason                                       |                                       |                             |                                  |              |
| 6- Things have been getting on top of me   |                                       |                             |                                  |              |
| 7- I have been so unhappy that I have had difficulty sleeping                                  |                                       |                             |                                  |              |
| 8- I have felt sad or miserable  |                                       |                             |                                  |              |
| 9- I have been so unhappy that I have been crying  |                                       |                             |                                  |              |
| 10- The thought of harming myself has<br>occurred to me  |                                       |                             |                                  |              |
|  |                                       |                             |                                  |              |
| Directions:  |                                       |                             |                                  |              |
| 0-9, no post partum depression   |                                       |                             |                                  |              |
| 10-12 possible existence of post partum depression   |                                       |                             |                                  |              |
| More than 13 needed psychiatric<br>intervention for the existence of<br>psychological problem. |                                       |                             |                                  |              |



#### First: the Demographic variables:

Religion: ..... • Accommodation: 
□ village □city □camp Governorate: □ Khan-younis □ Rafah □ Gaza □ Jabalya  $\Box$  Nosyrat **Housing:**  $\Box$  Ownership □ Rent  $\Box$  dependent  $\Box$  independent • Educational level:  $\Box$  Illiterate  $\Box$  Less than secondary  $\Box$  secondary  $\Box$  Academic or more • Working status:  $\square$  Work  $\Box$  doesn't work  $\Box$  Permanent job □ intermittently job Husband's Job: □ Permanent governmental job □ intermittently governmental job □ Permanent job in UNRWA □ intermittently job k in UNRWA □ a permanent Private sector job □ intermittently Private sector job  $\Box$  doesn't work

#### • Monthly income:

□ Less than 1000 shekel □ from 1000 - 2000 shekel □ more than 2000 shekel

#### • Age of the woman:

 $\Box$  Less than 20 years  $\Box$  from 20 -30 years  $\Box$  from 30- 40 years  $\Box$  40 and more

#### • Age when get married:

 $\Box$  Less than 18 year's  $\Box$  from 18 - 25 years  $\Box$  25 years and more

#### • Age of husband:

 $\square$  25 and less  $\square$  from 25 -35 years  $\square$  from 35 -45 years  $\square$  45 and more

- Number of children: .....
- Gender of the last baby:  $\Box$  male  $\Box$  female
- Number of male children: ...... Number of female children: ......
- Number of persons that are living at the house: ......



| •     | Is your husband married from other women: $\Box$ yes $\Box$ no                                   |
|-------|--|
| •     | If yes, Your wife order:   first   second  more  |
| •     | Number of marriages of the wife:  □ first □ second   |
| Secon | d: the Healthy Dimension:  |
| •     | <b>Do you have previous hospital admissions before:</b> $\Box$ yes $\Box$ no <b>If yes, why?</b> |
| •     | 2  |
|       | 3  |
| •     | <b>Do you have any previous surgical operations before:</b> $\Box$ yes $\Box$ no                 |
|       | If yes, specify?   |
| •     |  |
|       | 2  |
|       | 3  |
| •     | Did you have any menstrual cycle disorders before pregnancy for long                             |
|       | <b>periods:</b> $\Box$ yes $\Box$ no   |
| •     | Have you ever suffered from Tensions and concernsbefore period                                   |
|       | $\Box \text{ Headache} \qquad \Box \text{ Feeling of Concern} \qquad \Box \text{ sense of fear}$ |
|       | $\Box$ want to not speak for a long time $\Box$ Constant abdomen pain                            |
|       | $\Box$ All of the above  |
| •     | <b>Have you suffered from psychological illnesses before:</b> $\Box$ yes $\Box$ no               |
|       | If yes, specify?   |
| •     | 2  |
| •     | Have you ever suffered from anemia:  yes no  |
|       | n yes, specny mb:  |
| •     | 2  |



• Is there a family history of psychological illness?  $\Box$  yes  $\Box$  no

• What kind of it? ..... Relationship with the sick person...... Third: the Healthy Situation:

- What was the type of your last delivery:  $\Box$  Normal  $\Box$  C.S.
- How do you evaluate it?  $\Box$  easy  $\Box$  Hard
- Where you have delivered? 

  Hospital 
  Private Clinic
- Have you suffered from those diseases below through last pregnancy

|            | Diabetes        | □ Hypotensior | 1      | □ Heart di   | sease    | Hepatitis |
|------------|-----------------|---------------|--------|--------------|----------|-----------|
| □ Frequent | urinary infecti | ons           | 🗆 Pair | is in back a | ind feet |           |

 $\Box$  Severe stomach pain  $\Box$  other diseases  $\Box$  Nothing

• Have you suffered from one of next Psychological phenomena through last pregnancy

| □ Panic    | $\Box$ continuous |                |
|------------|-------------------|----------------|
| □ Anxiety  | □ continuous      | □ intermittent |
| 🗆 Insomnia | □ continuous      | □ intermittent |
| Anorexia   | □ continuous      | □ intermittent |

• Have you made Ultrasound image during last pregnancy:

If yes, specify why?

.....

• If yes, have you asked the doctor about fetus's gender? 
up yes up no If yes, specify why?

••••••

- Have you felt extremely wary from the result of Ultrasound imaging
   yes
   no
- If yes, how was the service provided? 
  □ Good □ not good
- Have you suffered from those events below in previous pregnancies?
   Discarriage
   Intra Uterine fetal death
   Low birth weight



 $\Box$  Baby with congenital disease  $\Box$  pre-natal death

 $\Box$  Ant partum hemorrhage  $\Box$  Post partum hemorrhage  $\Box$  nothing

• Have you born a sick baby? □ yes □ no If yes, what was the disease?

□ Heart disease □ Kidney disease □ Thalassemia □ Congenital malformations

Where did you have the medical care during pregnancy?
 A primary care clinic
 Governmental clinic
 UNRWA's Clinic

 $\Box$  Community institutions  $\Box$  Private clinics  $\Box$  Nothing



### Forth: Measurement of Pressures:

|     |  | Strongly |       |         |          | Strongly  |
|-----|--|----------|-------|---------|----------|-----------|
| No  | Question   | agraa    | Agree | Neutral | Disagree | disagraa  |
|     |  | agree    |       |         |          | uisagi ee |
| 1)  | Religious pressures                                  |          |       |         |          |           |
| 1-  | I had put on the head cover (Hijab) due to           |          |       |         |          |           |
|     | being totally convinced                              |          |       |         |          |           |
|     | I always agree with the well of God in all my        |          |       |         |          |           |
| 2-  | life issues  |          |       |         |          |           |
| 2   | I feel patient of all my husband behaves and         |          |       |         |          |           |
| 3-  | actions  |          |       |         |          |           |
|     | I don't feel jellies of woman that are given         |          |       |         |          |           |
| 4-  | boys as new babies                                   |          |       |         |          |           |
| 5-  | I keep doing all the prays on their times            |          |       |         |          |           |
| _   | I refuse the idea of being given girls as new        |          |       |         |          |           |
| 6-  | babies   |          |       |         |          |           |
| 7-  | I always feel satisfied in all aspects of my life    |          |       |         |          |           |
|     | I hope that my kid will become a very                |          |       |         |          |           |
| 8-  | committed person                                     |          |       |         |          |           |
|     | People's talking affects negatively my life          |          |       |         |          |           |
| 9-  | especially when I am being given girls as new babies |          |       |         |          |           |
|     | bables   |          |       |         |          |           |
| 2)  | Economic, cultural and social pressures              |          |       |         |          |           |
| 10  | A new born baby increases the expenses of the        |          |       |         |          |           |
| 10- | family   |          |       |         |          |           |
|     | Lots of kids needs increases the expenses of the     |          |       |         |          |           |
| 11- | family   |          |       |         |          |           |
| 10  | I was abused by my husband and he took my            |          |       |         |          |           |
| 12- | assists by force                                     |          |       |         |          |           |
| 13- | Low income prevents me of eating healthy             |          |       |         |          |           |
|     | Thoughts of my husband are much different            |          |       |         |          |           |
| 14- | than mines   |          |       |         |          |           |



| N   |   | Strongly |  |         | D        | Strongly |
|-----|---|----------|--|---------|----------|----------|
| No  | Question  | agree    |  | Neutral | Disagree | disagree |
|     |   |          |  |         |          |          |
| 15  | I can't accept what people say and think when   |          |  |         |          |          |
| 15- | come to childbearing                            |          |  |         |          |          |
|     | My husband and his relevant prefer male         |          |  |         |          |          |
| 16- | babies.   |          |  |         |          |          |
|     |   |          |  |         |          |          |
| 17- | is affecting my life and thoughts               |          |  |         |          |          |
|     | is arrecting my me and thoughts                 |          |  |         |          |          |
|     | I don't have the ability to deal with people in |          |  |         |          |          |
| 18- | different situations                            |          |  |         |          |          |
|     | Social communication with my husband's          |          |  |         |          |          |
| 19- | family affects my thoughts negatively           |          |  |         |          |          |
|     | Stange intermentions of my hyphond in home      |          |  |         |          |          |
| 20- | Strong interventions of my husband in nome      |          |  |         |          |          |
|     | issues areces my relation with others           |          |  |         |          |          |
|     | I can't raise my children according to my way   |          |  |         |          |          |
| 21- | because of others interventions                 |          |  |         |          |          |
|     | I feel embarrassing due to the extra weight I   |          |  |         |          |          |
| 22- | had gain after delivery                         |          |  |         |          |          |
| 2)  |   |          |  |         |          |          |
| 3)  | psychological pressures                         |          |  |         |          |          |
| 23- | I always tend to be introvert                   |          |  |         |          |          |
|     | L can't fix my own problems                     |          |  |         |          |          |
| 24- | real this my own problems                       |          |  |         |          |          |
|     | I have no ability to deal with the atitudes and |          |  |         |          |          |
| 25- | crisis  |          |  |         |          |          |
| 26  | I feel worried due to not trusting my husband   |          |  |         |          |          |
| 20- |   |          |  |         |          |          |
|     | Prevention of my husband form                   |          |  |         |          |          |
| 27- | communicating with someone increases my         |          |  |         |          |          |
|     |   |          |  |         |          |          |
|     | I feel jells from the over loving of my husband |          |  |         |          |          |
| 28- | to the kids                                     |          |  |         |          |          |
|     | Losing someone dear in the house affects        |          |  |         |          |          |
| 29- | negatively my behaves                           |          |  |         |          |          |
|     |   |          |  |         |          |          |
| 30- | I feel too much anxiety on my husband and       |          |  |         |          |          |
| 50- | NUS   |          |  |         |          |          |



| <b>N</b> T |  | Strongly |       |         | <b>D</b> : | Strongly |
|------------|--|----------|-------|---------|------------|----------|
| No         | Question   | agree    | Agree | Neutral | Disagree   | disagree |
|            |  | 0        |       |         |            | 8        |
| 31_        | I feel worried when watching killing and         |          |       |         |            |          |
| 51-        | destruction                                      |          |       |         |            |          |
| 32-        | I had sleeping disorders after the last delivery |          |       |         |            |          |
|            | I become angry for a very petty reasons after    |          |       |         |            |          |
| 33-        | the last delivery                                |          |       |         |            |          |
|            | I feel embarrassing to discuss my                |          |       |         |            |          |
| 34-        | psychological problems                           |          |       |         |            |          |
|            | I might seek the help from the sheikhs and       |          |       |         |            |          |
| 35-        | Conjurer for my psychological issues             |          |       |         |            |          |
|            |  |          |       |         |            |          |
| 36-        | I faced persecution, physical and sexual abuse   |          |       |         |            |          |
| 37-        | I was deprived of my kids at the past            |          |       |         |            |          |
|            | My husband always ignores my emotions and        |          |       |         |            |          |
| 38-        | feeling  |          |       |         |            |          |
|            | Professional and political pressures             |          |       |         |            |          |
| 4)         | r toressionar and ponticar pressures             |          |       |         |            |          |
| 39-        | I don't agree with women careers                 |          |       |         |            |          |
|            | Losing my position due to my delivery affects    |          |       |         |            |          |
| 40-        | negatively my thoughts                           |          |       |         |            |          |
|            | I can't manage spending my salary (someone       |          |       |         |            |          |
| 41-        | else do)   |          |       |         |            |          |
|            | I feel anxiety when thinking to leave my new     |          |       |         |            |          |
| 42-        | born baby and working                            |          |       |         |            |          |
|            | Leaving the baby at the nursery affects          |          |       |         |            |          |
| 43-        | negatively my career                             |          |       |         |            |          |
|            | I feel annoved a lot from the news covering the  |          |       |         |            |          |
| 14         | bombardment of Gaza with phosphoric bombs        |          |       |         |            |          |
|            | and the consequences of fetal malformation       |          |       |         |            |          |
|            | How to arrive to hospital in case of war or      |          |       |         |            |          |
| 45-        | invasion makes me panic                          |          |       |         |            |          |
| 1          |  |          | 1     | 1       |            |          |



# Annex (3)

# العالمي لقياس اكتئاب ما بعد الولادةEdinburgh مقياس أدنبرة

عزيزتي الأم:

مقدم إليك استبيان لمعرفة عوامل الخطر التي تؤدي إلى أتعاب ما بعد الولادة أرجو منك تعبئة الاستبيان مع العلم أنه لا توجد إجابة صحيحة وإجابة خاطئة وهذا المقياس معد لأغراض البحث العلمي فقط.

| لا على<br>الإطلاق<br>3 | بالتأكيد<br>ليس كذلك<br>2 | ليس تماماً<br>1        | بقدر ما<br>أستطيع<br>0 | السؤال  | م   |
|------------------------|---------------------------|------------------------|------------------------|---|-----|
|                        |                           |                        |                        | لقد كنت قادرا علي الضحك وان أرى الجانب المضحك من الأشياء    | -1  |
|                        |                           |                        |                        | لقد تطلعت للأشياء بمتعه                                     | -2  |
|                        |                           |                        |                        | لقد لمت نفسي بغير ضرورة عندما ساءت الأمور                   | -3  |
|                        |                           |                        |                        | لقد أحسست بالتوتر والقلق بدون سبب                           | -4  |
| لا أبداً<br>0          | لیس کثیراً<br>1           | نعم لبعض<br>الوقت<br>2 | معظم<br>الوقت<br>3     |   |     |
|                        |                           |                        |                        | لقد شعرت بالخوف والذعر لأسباب غير جيده أو أسباب غير وجيهة   | -5  |
|                        |                           |                        |                        | حدثت أشياء أكثر من تحملي اوطاقتي                            | -6  |
|                        |                           |                        |                        | لقد كنت غير سعيدة جدا لدرجه إنني وجدت صعوبة في النوم        | -7  |
|                        |                           |                        |                        | لقد شعرت بالحزن واليأس                                      | -8  |
|                        |                           |                        |                        | لقد كنت غير سعيدة لدرجه البكاء                              | -9  |
|                        |                           |                        |                        | لقد فكرت في إيذاء نفسي                                      | -10 |
|                        |                           |                        |                        | التعليمات:  |     |
|                        |                           |                        |                        | الدرجات من9-0دليل علي عدم وجود المرض                        |     |
|                        |                           |                        |                        | الدرجات من12-10احتمال وجود المرض ويعاد بعد أسبو عين للتأكد  |     |
|                        |                           |                        |                        | أكثر من 13 تحول لطبيب نفسي أو أخصائي نفسي لوجود مشكله نفسيه |     |



بسم الله الرحمن الرحيم

استبيان

غزة - الجامعة الإسلامية عمادة الدراسات العليا ماجستير تمريض صحة نفسية ومجتمعية كلية التمريض – كلية التربية

عزيزتي الأم:

تقوم الباحثة/ **عايدة علي الحمارنة** الملتحقة ببرنامج ماجستير الصحة النفسية تخصص تمريض – صحة نفسية ومجتمعية بالجامعة الإسلامية بإعداد رسالة الماجستير كمتطلب تكميلي لنيل الدرجة والتي عنوانها:

## Risk Factors for post partum depression among women in Gaza Strip

عوامل الخطر التي تؤدي إلى اكتئاب ما بعد الولادة في النساء بقطاع غزة

وتهدف هذه الدراسة إلى تحديد نسبة انتشار اكتئاب ما بعد الولادة في قطاع غزة وكذلك التعرف على أهم العوامل الخطرة التي تؤدي إلى اكتئاب ما بعد الولادة وتأثير الصفات الديمو غرافية على تطوير اكتئاب ما بعد الولادة ووضع التوصيات للمختصين للحد من انتشار الاكتئاب ما بعد الولادة.

فشكراً لك على مشاركتك الطوعية في تعبئة هذه الاستبانة

الباحثة

عايدة علي الحما رنة





أولاً: البيانات الأساسية الديموغرافية:

1) الديانة: ....

2) ا**لسكن:** قرية مخيم □ مدينة □ 3) **نوع السكن**: ملك 🛛 إيجار 🗅 مستقل 🛛 غیر مستقل غیر عاملۃ 🗅 🛛 عمل دائم 🗅 عمل متقطع 5) الوظيفة: عاملة 🛛 🗆 6) عمل الزوج: حكومي دائم \_حكومة غير دائم \_ وكالة دائم \_ وكالة غير دائم 🛛 خاص دائم 🗅 خاص غير دائم 🗅 لا يعمل 7) الدخل الشهرى: أقل من 1000 شيكل 🛛 من 1000 – 2000 شيكل 🗆 أكثر من 2000 شيكل 🗆 8) عمر الزوجة: أقل من 20 سنة 🛛 🗆 من 20 إلى 30 سنة 🛛 من 30 – 40 سنة 🛛 🗆 من 40 فما فوق 9) ا**لسن عند الزواج:** أقل من 18 سنة 🛛 🛛 من 18 –25 سنة 🛛 🗆 من 25 سنة فما فوق 🗆 10) **عمرالزوج:** 25 فأقل□ من 25 – 35 سنة□ من 35 – 45 سنة □ من 45 فما فوق□ عدد الأطفال: ..... (11 نوع المولود الأخير: ذكر 🛛 أنثى 🗆 (12 13) عدد الذكور:.... عدد الإناث:.... عدد أفراد الأسرة كلها التي تعيشين معها: ..... (14 هل زوجك متزوج من أمراة أخرى (15 צם نعم 🗆 إذا كانت الإجابة بنعم: الثانية 🛛 أو أكثر 🗆 16) رقمك في الزوجات: الأولى 🗉 عدد مرات الزواج بالنسبة لك: الأول 🛛 الثاني 🗤 👘 أو أكثر (17

6 ثانياً: البعد الصحى



18) هل نمت في إحدى المستشفيات من قبل: نعم □ لا □
إذا كانت الإجابة نعم اذكرى السبب

-1 -2 -3

# 18) هل أجريت لك من قبل إحدى العمليات الجراحية: نعم □ لا□ إذا كانت الإجابة بنعم اذكريها:

20) هل عانيت من توترات وقلق قبل مجيء الدورة الشهرية: صداع: \_\_ شعور بالقلق \_\_ شعور بالخوف \_\_

الرغبة في عدم الكلام لفترات طويلة

21) هل عانيت من أمراض نفسية سابقاً:

نعم 🗆 🛛 لا 🗆

- إذا كانت الإجابة نعم اذكريها:



| (23          | هل يوجد تاريخ    | خ عائلي ل        | للإصابة بالأمراط | ض النفسية:       |                            |     |
|--------------|------------------|------------------|------------------|------------------|----------------------------|-----|
|              | نعم 🗆            |                  |                  |                  | צ 🗆                        |     |
| i (24        | نوع المرض الن    | فسي:             | •••••            | . وصلة قرابتك    | المريض:                    | ••  |
| i 9          | ثالثاً: الوضع ال | لصحي:            |                  |                  |                            |     |
| (25          | هل كانت ولادتا   | ك الأخيرة:       | :                |                  |                            |     |
|              |                  |                  | طبيعية           | □ Ä              | قيصرية                     |     |
| (26          | كيف تقييمها      |                  | قليس             |                  | صعبة 🛛                     |     |
| (27          | هل كانت الولاد   | د <b>ة في</b> مس | ىتشفى □عيادة .   | خاصة 🛛 البي      | ت_ غیر ذلك _               |     |
| 9.5          | هل عانيت في      | الحمل الأ        | بمن أحد ا        | الأمراض التالية: |                            |     |
| سكر <u>ي</u> | ي 🗆              |                  | ضغط              | . 🛛 🗆 مرد        | ض في القلب 🛛               |     |
| التهاب       | ب الكبد الوبائي  |                  | التهاب متكر      | كرر في البول     | □ آلام في الظهر والقدمين □ | ن 🗆 |
| آلام ڈ       | شديدة في المعد   | دة 🗆             | أمراض أخر        | رى               |                            |     |
| (29          | هل عانيت من      | , أحد الظو       | واهر النفسية ال  | لآتية خلال الحم  | ل الأخير:                  |     |
| ż            | خوف:             | • □              | مستمر            |                  | متقطع 🗆                    |     |
| ē            | قلق:             | · □              | مستمر            |                  | متقطع 🗆                    |     |
| أر           | أرق:             |                  | مستمر            |                  | متقطع 🗆                    |     |
| ė            | فقدان الشهية:    | • □              | مستمر            |                  | متقطع 🗆                    |     |
| (30          | ا هل قمت بعمل    | ، سونار (        | · صورة تليفزيون  | نبة ، التراساوند | ا خلال الحمل الأخير:       |     |

نعم□ لا□



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إذا كانت الإجابة بنعم اذكرى السبب: -3 31)إذا كانت الإجابة نعم هل طلبت من الطبيب معرفة نوع الجنين: لا□ نعم 🗆 إذا كانت الإجابة بنعم اذكرى السبب: 32) هل شعرت بالقلق الشديد من نتيجة التصوير. لا نعم 33) هل تلقيت خدمات نفسية إرشادية للتغلب على القلق والخوف خلال الحمل الأخير : لا نعم إذا كانت الإجابة نعم: هل كانت الخدمة مقدمة بشكل: غير جيد 🗆 جيد 34)فى الحمولات السابقة هل تعرضت لأي من الأحداث الآتية: وفاة طفل داخل الرحم الإجهاض طفل مولود بوزن أقل من الطبيعي 🗆 طفل مصاب بمرض وراثي 🛛 طفل متوفى حول الولادة الحمل الحمل نزيف بعد الولادة 35) هل تعرضت لولادة طفل بمرض عضوى: צ ם نعم 🗆 إذا كانت الإجابة نعم فهل كانت الإصابة: مرض في القلب 🗆 🛛 مرض في الكلي ثلاسيميا 🗆 تشوهات خلقية 🛛 36) هل تلقيت الرعاية الطبية خلال الحمل في: عيادة رعاية أولية 🛛 حكومية عيادة تابعة لوكالة الغوث 🗆 لا شئ مما ذکر مؤسسات مجتمعية 🛛 عيادات طبيب خاص 🗆 231

للاستشارات

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|--------------|------|-------|-------|---------------|---|----|
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| أرفض<br>بشدة | أرفض | محايد | أوافق | أو افق<br>بشدة | الفقرة  |    |
|--------------|------|-------|-------|----------------|---|----|
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#### Annex (4)

#### 1. DSM-IV Criteria for major depressive episode

A. Five (or more) of the following symptoms have been present during the same twoweek period and represent a change from previous functioning; at least one of the symptoms is either (1) depressed mood or (2) loss of interest or pleasure.

(1) Depressed mood most of the day, nearly every day, as indicated by either Subjective report (e.g. feels sad or empty) or observation made by others (e.g. appears tearful).

(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 than5% of body weight in a month), or decrease or increase in appetite nearly every day.

(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 inductiveness, 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 atempt or a specific plan for committing suicide.

B. The symptoms do not meet criteria for a Mixed Episode (see Criteria for Mixed Episode).

C. The symptoms cause clinically significant distress or impairment in social, Occupational, or other areas of functioning.

D. The symptoms are 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).

E. The symptoms are not better accounted for by Bereavement, i.e. after the loss of a Loved one, the symptoms persist for longer than two months or characterized by marked functional impairment, morbid preoccupation with worthlessness, suicidal



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ideation, psychotic symptoms, or psychomotor retardation.**208** Postnatal depression — A systematic review of published scientific literature to 1999.

## 2. DSM-IV: Criteria for minor depression:

A. At least two and less than five 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 (1) depressed mood or (2) loss of interest or pleasure.

(1) Depressed mood most of the day, nearly every day, as indicated by either Subjective report (e.g. feels sad or empty) or observation made by others (e.g. appears tearful).

(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 orobservation made by others).

(3) Significant weight loss when not dieting or weight gain (e.g. a change of more than5% of body weight in a month), or decrease or increase in appetite nearly every day

(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 inductiveness, 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 atempt or a specific plan for committing suicide.

B. The symptoms do not meet criteria for a Mixed Episode (see Criteria for Mixed Episode).

C. The symptoms cause clinically significant distress or impairment in social, occupational, or other areas of functioning.

D. The symptoms are 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).

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



# 3. ICD-10: Criteria for depressive episodes

Core symptoms: Depressed mood Loss of interest and enjoyment Reduced energy leading to increased fatigability and diminished activity **Other common symptoms:** Reduced concentration and attention Reduced self-esteem and self-confidence Ideas of guilt and unworthiness Bleak and pessimistic views of the future Ideas or acts of self-harm or suicide Disturbed sleep Diminished appetite.

### 4. ICD-10: Criteria for severe depressive episodes without psychotic symptoms

All three core symptoms, plus at least four other symptoms, considerable distress or agitation unless retardation is a marked feature, some symptoms of severe intensity. Duration of at least two weeks, but if symptoms are severe and onset rapid, this diagnosis justified after less than two weeks.

# 5. ICD-10: Criteria for moderate depressive episodes

At least two core symptoms, plus at least three (and preferably four) of the other symptoms, several symptoms present to a marked degree, but not essential is a particularly wide variety of symptoms is present overall. Minimum duration of whole episode is about two weeks.

# 6. ICD-10: Criteria for mild depressive episodes

At least two core symptoms, plus at least two of the other symptoms as above. No symptoms should be present to an intense degree. Minimum duration of whole episode is about two weeks.

.Postnatal depression — A systematic review of published scientific literature to 1999



### Annex 5

بسي إلكاله الح

**الجامعة الإسلامية – غزة** The Islamic University - Gaza

Faculty of Nursing ماتف داخلي: 2700

كلية التعريض

حفظه الله،،

الأخ الدكتور/ محمد المقادمة

مدير دائرة الصحة بوكالة الغوث الدولية

السلام عليكم ورحمة الله وبركاته،،

صورة لـ: • اللملف.

الموضوع/ تسهيل مهمة طالب

أرجو التكرم بالعمل على تسهيل مهمة الطالبة/ عايدة علي الحمارنة من كلية الدارسات العليا، "برنامج ماجستير الصحة النفسية المجتمعية/ تمريض نفسي"، وذلك لزوم الحصول على درجة الماجستير في التمريض النفسي ورسالتها بعنوان:

Risk Factors of Post Partum Depression Among Women in Gaza Strip

شاکرین لکم حسن تعاونکم،..،

رئيس المجلس الأكاديمي لبرنامج ماجستير الصحة النفسية المجتمعية/ تمريض نفسي



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