An-Najah National University

Faculty of Graduate Studies

POSTPARTUM DEPRESSIONAND ANXIETY AMONG WOMEN UNDERGO CESAREAN SECTION COMPARED WITH VAGINAL DELIVERY IN NABLUS

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This Thesis was Defended Successfully on 31/5/2023and approved by

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Dedication

I dedicate this work,

To the sake of ALLAH, my Creator, and my Master.

To my great teacher and messenger, Prophet Mohammed (May Allah bless and grant him), who taught us the purpose of life.

To my beloved father “Khaled”, who had always loved me unconditionally and whose good examples had taught me to work hard for the things that I aspire to achieve.

To my beloved mother “Ilham”, who has been a constant source of support and encouragement during the challenges of graduate school and life.

I am truly thankful for having you in my life.

This work is also dedicated to my darling husband “Sameh”.
To my admired sisters and brothers.

To my supervisors and all who supported me in completing this work.

Acknowledgements

Now as my thesis has been completed,

First and foremost, I would like to offer all the admirations and glory to our Allah. His inspiring words and unfaltering love and mercy are lamps and lights to my path that guide me from the commencement until the end of this study. To complete research like this, quite a few minds are essentials. Nevertheless, Allah sent people who have been very cooperative and contributory in the accomplishment of this study. I am forever appreciative to those people who have supported and cheered me along the way.

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Finally, I must gratefully appraise the help and support of my lovely husband “Sameh” whom I am beholden my deepest gratitude for caring, patience and inspiring; you were the main support and comfort during my study, even though it has resulted in them undertaking extra family care.

Declaration

I, the undersigned, declare that I submitted the thesis entitled:

POSTPARTUM DEPRESSION AND ANXIETY AMONG WOMEN UNDERGO CESAREAN SECTION COMPARED WITH VAGINAL DELIVERY IN NABLUS

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

Student's Name: _____

Signature: _____

Date: 31/5/2023

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POSTPARTUM DEPRESSION AND ANXIETY AMONG WOMEN UNDERGO CESAREAN SECTION COMPARED WITH VAGINAL DELIVERY IN NABLUS

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Abstract

Background: Depression and anxiety are considered to be significant mood changes among pregnant women. Numerous studies have reported fluctuations in levels of depression and anxiety over time among women who planned for caesarean section (CS) more than a normal vaginal delivery. Based on data from the World Health Organization, around ten percent of pregnant women around the world and 13 percent of the women who have given birth experience a mental disorder, and primarily depression.

Aim: The study aims to investigate the prevalence of depression and anxiety among women who have undergone a caesarean section versus woman who delivered normal, and to identify the related predictors of depression and anxiety.

Methodology: A quantitative prospective cross-sectional approach was used in this study. The researcher used the Edinburgh Postnatal Depression Scale (EPDS). The Postpartum Specific Anxiety Scale (PSAS) for anxiety was used after two weeks and six weeks of postpartum and applied on 361women who underwent caesarean section and normal delivery at large hospitals in Palestine.

Results: The study showed that the majority of the participants were aged 28-37 (38.8%) and 47.1% holding a bachelor's degree. About 30.5% of women experienced psychological stress after childbirth. Family support was available to 73.1% of participants. The study revealed significant differences in anxiety and depression scores after 2 weeks post-delivery, associated with various obstetric factors such as allergies, surgical procedures, medical diseases, and family psychological history ($p < 0.05$). Additionally, factors like gravity, parity, abortion, gestational age, number of foetuses, number of male and female babies, type of delivery, planned caesarean delivery, type of

anaesthesia during delivery, health problems after delivery, and type of feeding also showed similar associations ($p < 0.05$). These findings underscore the importance of considering these obstetric factors as potential risk factors impacting maternal mental health during the postpartum period.

Conclusions: The researcher found the total percentage of post-partum women who suffer from severe PPD and anxiety were high especially for CS group, according to the findings of the study, midwives should focus on providing healthcare for woman after six weeks of childbirth especial CS group, because through our study, the incidence of PPD and anxiety increase with time, especially in this period and focus on decreased factors that increased occurrence of PPD and anxiety.

Keywords: Cesarean section, Postpartum depression, Anxiety, Risk factor, Women, Normal Delivery.

Chapter One
Introduction and Theoretical Background

1.1 Introduction

1.2 Overview

Postpartum depression (PPD), which is also referred to as postnatal depression, is a complex and challenging depressive disorder that impacts approximately 10-15% of women globally (Villegas et al., 2010). The beginning of sadness in post pregnancy period is considered as a significant general medical condition influencing mother, kids, father, and the entire family (Letourneau et al., 2012); Also, PPD fundamentally affects the mother and long-haul outcomes on the psychological and enthusiastic advancement of youngest woman (Tammentie et al., 2004).

According to statistics, depression is one of the top three causes of mortality worldwide (Nonacs and Cohen, 2000). Actually, the PPD in the United States is a critical maternal health challenge. Its reported occurrence has increased in 27 states within the late 15 years, and it presently affects about one of every seven women (Haight et al., 2019). Postpartum depression is connected to the increased possibilities of severe maternal difficulties like self-destruction, and it contributes primarily to avoidable maternal death (Johannsen et al., 2016). But in the United Kingdom, maternal self-destruction is the essential reason of direct maternal deaths from almost 1.5 month postpartum up to one year postpartum (Knight et al., 2014).

Arabic women have been accounted for the level of PPD in Jordan (Mohammad et al., 2011), the United Arab Emirates (Abou-Saleh et al., 1998) and Lebanon (Chaaya et al., 2002) about (21–22%). PPD commonness among Arab population who live in Palestine lands 48 has gone from 8% in the north of the country (Glasser et al., 2011), to 25% in a centre region (Eilat-Tsanani et al., 2006), and 26% among Bedouin populaces in the south (Glasser et al., 2011).

PPD normally happens inside the initial four weeks after labor, endures at least fourteen days, and can cause clinically huge impedance in day by day working (Reck et al., 2008). PPD manifestations incorporate sensations of uneasiness, sadness, diminished craving, powerlessness to focus, diminished revenue in the child or life as a rule, and

adjusted rest designs. In any case, clear rules for diagnosing PPD are as yet ailing in the "Diagnostic and Statistical Manual of Mental Disorders (DSM)" (Segre & Davis, 2013).

Females who get general anesthesia throughout CS are considerably more probable to go through severe PPD leading to self-harm or suicidal thoughts and hospitalization. It could be due to the fact that administering general anesthesia may postpone breastfeeding and hinder skin-to-skin contact between the mother and newborn, and usually leads to heightened and constant pain following childbirth (Dennis & McQueen, 2009).

Furthermore, Meky et al., (2019) revealed that the occurrence of PPD was noticeably higher among women who underwent emergency CS during both the 8th and 16th weeks after giving birth as compared to elective CS or normal vaginal delivery.

Therefore, the researcher decided to examine the occurrence of PPD, and anxiety to examine the related predictors of depression, and anxiety on woman who undergo CS compared with vaginal delivery.

1.3 Research questions

- What is the prevalence of PPD among woman who undergo CS versus normal vaginal delivery?
- What is the prevalence of anxiety among woman undergo CS versus normal vaginal delivery?
- Is there some associated predictors of depressionand anxiety among woman who undergo CS compared with vaginal delivery?

1.4 Problem statement

Postpartum depression and anxiety are significant mental health challenges that affect women after childbirth with a high prevalence rate. In addition, fatigue, labour pain, worried about new baby, new pressures, and emotional fluctuations are common symptoms during the postpartum phase that can negatively affect a woman's mental well-being, so the risk for postpartum depression and anxiety increased. As the researcher noticed from her experience at labour and postpartum wards in Al-Ittihad hospital as midwife. In addition to increased percentage of CS delivery in Palestine related to Palestinian ministry of health, CS percentage in 2021increased to 28.4%.

More ever not much research in Palestine about postpartum depression and anxiety. The mode of delivery, whether cesarean section or vaginal delivery, has been suggested to influence the occurrence and severity of postpartum mood disorders. Understanding the potential differences in postpartum depression and anxiety between women who undergo cesarean section and those who have vaginal deliveries is crucial for providing appropriate support and intervention.

1.5 Significance of the Study

This study's findings could assist the Palestinian Ministry of Health in implementing and utilizing screening tools for postpartum depression, and anxietyat all primary health care clinics and during every maternal check-up. This would aid women in experiencing a postpartum period free from depression, and anxiety, as well as promoting the healthy development of their infants. Additionally, this would support mental health service policymakers and managers in creating applicable protocols and guidelines for identifying women who are suffering during the postpartum phase.

Also, this study contains relevant and beneficial data for health staffs to establish the frequency or occurrence and level of PPD and accompanying factors that encourage health professionals to provide professional postnatal care and psychological support during the postpartum period. Correspondingly, the findings of the research will be significant evidence for health staffs and researchers when performing further research in related topics in Palestine.

1.6 Aims of the study

The aims of the study are to investigate the prevalence of PPD, and anxiety; in addition to examine the associated predictors of depression, and anxiety among woman who undergo CS compared with vaginal delivery.

1.7 Objectives

- To determine the prevalence of PPD among woman who undergo CS versus normal vaginal delivery.
- To identify the prevalence of anxiety among woman undergo CS versus normal vaginal delivery.
- To identify whether there are associated predictors of depression and anxiety among woman who undergo CS compared with vaginal delivery.

1.8 Research hypothesis

- There is a significant relationship between demographic data such as (age, level of education, marital status, resident, family type, number of family members, family income, work, smoking, allergy, surgical history, family psychological history, gravity, parity, abortion, gestational age, number of baby related to gender, type of delivery, type of anesthesia during delivery, breastfeeding, bottle feeding, psychological stress after childbirth, family support) of women and occurrence of postpartum depression at the level p-value ≤ 0.05.
- There is a significant relationship between demographic data such as (age, level of education, marital status, resident, family type, number of family members, family income, work, smoking, allergy, surgical history, family psychological history, gravity, parity, abortion, gestational age, number of baby related to gender, type of delivery, type of anesthesia during delivery, breastfeeding, bottle feeding, psychological stress after childbirth, family support) of women and occurrence of anxiety, at the level p-value ≤ 0.05.
- There is a significant relationship between women who has CS and experience a significant level of postpartum depression at two and six weeks post-delivery compared with normal vaginal delivery, at the level p-value ≤ 0.05.
- There is a significant relationship between women who has CS and experience a significant level of anxiety at two and six weeks post-delivery compared with normal vaginal delivery, at the level p-value ≤ 0.05.

1.9 Definition of related terms

Postpartum depression

PPD related to DSM-5 “It refers to a complex combination of emotional, physical, and behavioral changes that occur in some women after giving birth” (American Psychiatric Association, 2013).

It is considered the greatest widespread complication connected to childbirth (Keane et al., 2011).

Normal delivery

"It is a natural bodily process in which the uterus expels the fetus, placenta, umbilical cord, and membranes" (Milton, 2019).

Cesarean delivery (C-section)

"It is a surgical procedure that involves delivering a baby by making incisions in the abdomen and uterus" (Berghella, 2022).

Anxiety

It is a common response to stress and could be advantageous in some conditions. It can warn us of threats and assist us to be prepared and to be focused (American Psychiatric Association & Muskin, 2021).

Anxiety disorders vary from neutral feelings of anxiousness or nervousness and involve encompass extreme anxiety or fear. Moreover, they are considered to be highly prevalent mental disorders and influence approximately 30% of persons at some point in their lifetimes. It is considered treatable, and there are a lot of available effective treatments (American Psychiatric Association & Muskin, 2021).

1.10 Literature Review

1.11 Postpartum depression

1.12 Postpartum depression time of occurrence

While the American Psychiatric Association specifies postpartum depression as having an onset within four weeks after childbirth, this time frame has been a subject of debate. Many experts argue that the onset of PPD can occur at any time during the first year after giving birth, with the incidence falling significantly afterward three months of childbirth (American Psychiatric Association, 2013). However, the International Classification of Diseases (ICD-10) by the World Health Organization (WHO) defines PPD as having an onset within six weeks following childbirth (World Health Organization, 2013).

1.13 Postpartum Affective Disorders

Postpartum affective disorders are typically classified into three groups: “postpartum blues”, “non-psychotic postpartum depression”, and “postpartum psychosis” (Nonacs & Cohen, 1998). See Table (1).

Table 1

Prevalence, onset, and duration of the three types of postpartum affective disorders (Nonacs & Cohen, 1998)

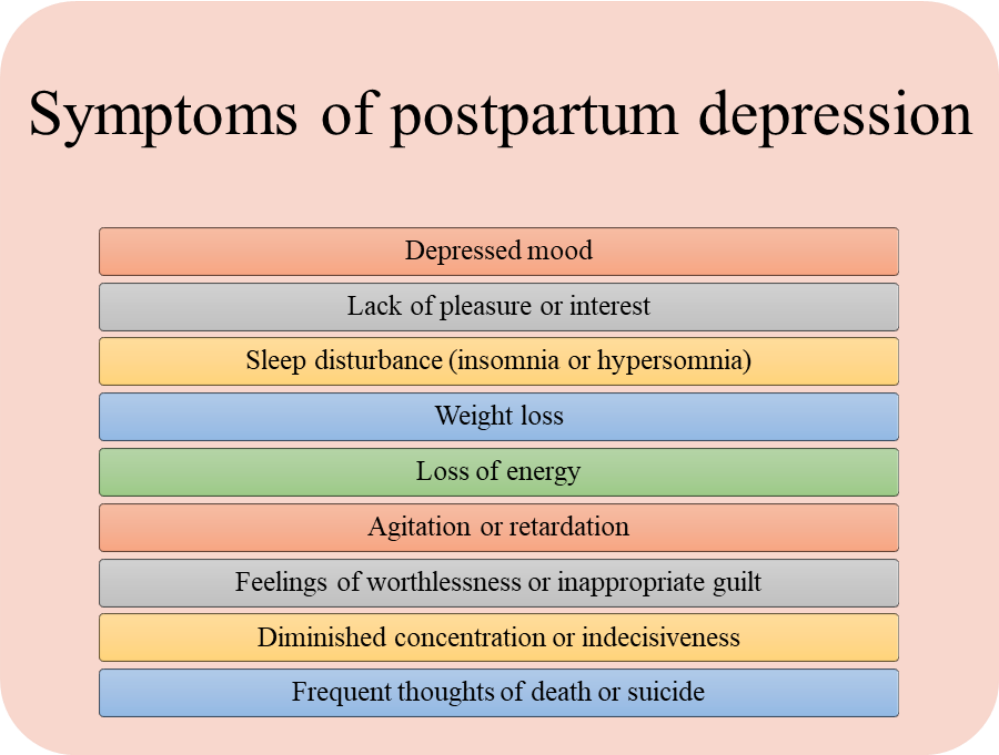
Disorder	Prevalence	Onset	Duration	Treatment
Blues	30 to 75%	Day 3 or 4	Hours to days	No treatment required other thanreassurance
Postpartum Depression	10 to 15%	Within 4 weeks	Weeks to months	Usually treatment is required
Puerperal Psychosis	0.1 to 0.2%	Within 2 weeks	Weeks to months	Usually hospitalization is required

1.14 Signs and symptoms of postpartum depression

Figure (1) displays the most frequent signs and symptoms of PPD (Sharma, V., & Sharma, P. 2012).

Figure 1

Signs and symptoms of postpartum depression (Diagnostic and Statistical Manual of Mental Disorders (DSM-5) in 2013)



1.15 Risk factors for postpartum depression

Many factors play a significant role in causing PPD as a woman's history of depression or specific socioeconomic risk factors, (e.g., young parenthood or low income). A history of depression and psychopathology during the present pregnancy is another substantial predictor of PPD. However, a small number of these risk factors, are easily changeable. In addition to routine prenatal screening for PPD symptoms and interventions for females with recognized risk factors for PPD, identifying actionable risk factors for PPD prior to depression symptoms arise would be an additional approach (Curry et al., 2019).

According to two recent meta-analyses, CS is associated with a higher incidence of PPDwhen compared to vaginal delivery (Moameri et al., 2019; Xu et al., 2017). However, a delayed first contact between the mother and her baby, as well as a delayed first attempt of breastfeeding, postpartum discomfort, and a mismatch between women's expectations for giving birth and treatment provided mother dissatisfaction are all possible factors.

According to the studies conducted by Nikolajsen et al., (2003) and Yurashevich et al., (2019), the use of general anesthesia during CS delivery may raise the likelihood of PPD. This is because it linked with a delay in the first skin-to-skin contact between the mother and baby, postpone the initial attempt at breastfeeding, increase the likelihood of lower maternal satisfaction, and persistent postoperative pain associated with anesthesia care.

Many variables contribute to the incidence of PPD, including medical issues(like preeclampsia, delivery type, pain accompanying with delivery and hospital admission of the mother and baby afterward childbirth and infection after delivery); socio-demographic aspects (for example being younger in age, unemployment, single motherhood, low income, low level of education and smoking); and also the psychological factors to consider, are lack or low support from partner and mother family, poor relationship quality, serious life events, and a negative response to the pregnancy (Bloch et al., 2005).

The type of delivery has been recognized as a risk factor for PPD and mother mental health disorders. According to previous studied, caesarean section is a possible risk factor for emotional problems in women throughout the pre and postpartum stages (Blom et al., 2010).

1.16 DSM-5 diagnostic criteria of postpartum depression

Based on the DSM-5,2013 (a guide utilized to diagnose mental disorders), “PPD is a type of major depression that starts throughout four weeks following childbirth; the diagnosis of postpartum depression is based on the severity of the depression, not only on the length of time between childbirth and the onset” (American Psychiatric Association, 2013).

The DSM-5 sets out the subsequent criterion for diagnosing depression. The person has to experience five or more symptoms throughout a 2-week period and at least one of the symptoms should be either (1) loss of pleasure or interest or (2) depressed mood (American Psychiatric Association, 2013).

The symptoms must manifest for almost the entire day, about every day, for a duration of two weeks, along with a related decline in social and/or occupational functioning. A depressed mood resulting from substance use (such as medications, alcohol, or drugs) or

as a consequence of an overall medical condition is not considered in the diagnosis of a major depressive episode. Furthermore, it is important to exclude uncomplicated bereavement. The symptoms of depression are generally similar, whether they are experienced during the postpartum phase or at any other time. There is commonly a focus on maternal or infant care issues in PPD. Mothers who have PPD may experience concurrent symptoms like psychotic features, compulsions, obsessions, or panic attacks. The comorbidity of psychiatric can appear at the syndromic level in the type of anxiety or substance usage disorders (Spinelli, 2004).

Mothers with PPD commonly experience comorbid obsessive-compulsive thoughts (41% to 57%), which are ego-dystonic in nature, but there is preservation of rational judgement and reality testing (Spinelli, 2004).

1.17 Scalesof postpartum depression

The Edinburgh Postnatal Depression Scale (EPDS) is the standard screening tool utilized to detectfemales with PPD (Cox JL,1987). This is a 10-items structure that was developed in several communities and was intended to be given in almost every language. A rating of ten or higher on this scale, or a positive answer on 10-items (existence of thoughts about suicide) indicates PPD. It is important to note that if the cut-off score for the EPDS is set at twelve, the test's ability to accurately identify cases of primary depression is improved, which is known as its specificity. However, this also results in a significant decrease in the test's sensitivity, which makes it less useful for screening purposes. Most significantly, it must be underlined that a multiplied rating at the EPDS does currently no longer always confirms the diagnosis of PPD, this necessitates an extra thorough diagnostic procedures or evaluation (MGH Center for Women's Mental Health, 2016).

Other measures have been used to screen for PPD. The "Postpartum Depression Screening Scale (PDSS)" is a self-report questionnaire specifically designed for postpartum women, consisting of 35 items that can be completed in 5 to 10 minutes. It is worth noting that there is no validation of the "Hamilton Depression Rating Scale" and the "Beck Depression Inventory" in pregnant or postpartum women (MGH Center for Women's Mental Health, 2008).

1.18 Cesarean section (CS):

Based on the WHO in 2010, the rate of CS should not go above 10% to 15%. However, in both developed and developing nations, caesarean sections have become progressively prevalent. Caesarean deliveries rate has grown considerably in recent years around the world, and several nations exceeding the WHO recommended rate (Gibbons et al., 2010). The total number and expenses of additionally required and unneeded CS done each year: Excessive usage as a barrier to global coverage. In the Palestinian territory, the rate of CS deliveries in the national population has almost doubled in a span of eight years; Specifically, it increased from 6.8% in 1996 and 16.7% in 2010 to 28.4% in 2021(Palestinian Ministry of Health, 2021); while still far lower than in numerous Latin American countries.

The percentage of CS in Palestine during the period from 2010 to 2021 is presented in Table 2, which shows a continuous increase in the percentage of CS over time in Palestine (Palestinian Ministry of Health, 2021)

Table 2

Percentage of CS in Palestine

Year	Percentage of CS in Palestine
2010	16.7%
2011	20.7%
2012	18.7%
2013	18.8 % "Only in west bank"
2014	22.4%
2015	24.4%
2016	24.9%
2017	25.8%
2018	25.1%
2019	25. 8%
2020	28.4%
2021	28.4%

According to table (2) percentage of CS increased during the period between 2010 to 2021. Cesarean section delivery is becoming a very widespread event for females delivering in the developed countries. In recent years, over than 20% of deliveries in the United Kingdom and the United States were achieved by cesarean section (Thomas et al., 2000). Concerns have been raised since the 1970s that CS delivery may be related with negative psychological implications for women, such as PPD, anxiety, and sleeplessness (Bradley, 1976).

CSs are considered a major surgery, as well as vital birthing event, with both psychological and physical consequences for adaption (Lobel & DeLuca, 2007). A recent study discovered that women with high dread of delivery were more possible to undergo elective caesarean sections (Nieminen et al., 2009) and repeatedly suffered from higher incidence of anxiety and depression symptoms (Laursen et al., 2008). Anxiety and depression are greatly widespread throughout the childbirth period (Nakić Radoš, 2018).

According to DSM-5, PPD is defined as "having five or more of the following symptoms for at least two weeks: psychomotor agitation or retardation, suicidality, decreased concentration, feelings of hopelessness or guilt, appetite changes, fatigue, and insomnia/hypersomnia. These episodes often begin within four weeks after childbirth and can persist up to a year." According to the WHO, "around 10% of pregnant women globally and 13% of new mothers suffer from a mental disorder, mostly depression" (Wisner et al., 2010).

According to American Psychiatric Association (APA), "anxiety is a normal response to stress and can be advantageous in a few conditions. It can warn us of threats and assist us in preparing and paying attention; it is distinguished from normal feelings of anxiousness or nervousness by the presence of excessive anxiety or fear; and considered the most common mental disorder affects around 30% of people at some point in their lives. This disorder is treatable, and there are various effective treatments available. These treatments enable the majority of people to lead normal and productive lives" (American Psychiatric Association, 2013).

Based on the finding from a retrospective cohort study that conducted by Guglielminotti & Li, (2020) to investigate CS cases performed in hospitals at New York City; It pointed out a total of 1158 female needed admission to hospital due to severe

postpartum depression; Also, demonstrated that the general anesthesia for CS is correlated with a raised risk of severe PPD necessitating admission to hospital, suicidal thoughts, and self-inflicted harm. The author suggested that the general anesthesia for CS may rise the incidence of postpartum depression since it postpones the initiation of skin-to-skin interaction between the mother and newborn and breastfeeding, which lead to more acute and prolonged postpartum pain.

1.19 Literature review

1.20 Overview

Up to 85% of women experience some form of postpartum temper disturbance, with most signs and symptoms being temporary and minor. Nevertheless, up to one in every seven women suffer from chronic sort of despair, which is linked to main maternal and neonatal morbidity if not properly managed (Goweda & Metwally, 2020). Cesarean section delivery is becoming a very routine occasion for women giving birth in the developed nations. Over than 20% of deliveries in the United Kingdom and the United States were performed by cesarean section (Thomas et al., 2000).

Through a review of previous studies and research papers, the researcher reviewed and looked at the studies that focused on the postpartum depression, and anxiety among women who had undergone cesarean section versus those who had vaginal deliveryin Palestinian territories. The researcher utilized psychiatric and health research resources such as PsycINFO, CINAHL, Google Scholar and PubMed to collect articles that related to this study, by utilizing the subsequent key words: “postpartum depression”, “anxiety”,“cesarean section”, and “vaginal delivery”. Included in the study were original articles that were written and published in the English language. Additionally, once the various sources had been cross-referenced and duplicates and irrelevant articles were removed, the articles were selected.

1.21 International studies about postpartum depression and anxiety

Prospective longitudinal research was undertaken on post-delivery women139 who had a CS. The State Anxiety Inventory and EPDS were used to evaluate depression and anxiety symptoms during the third trimester and at various points after childbirth, including 1 day, 1 week, 1 month, and 6 months. Researchers found that there were three different patterns or trajectories of depression symptoms: "lowdepression

symptoms" (30.9%), "milddepression symptoms" (41.7%), and "highdepression symptoms" (27.3%) for the participants. While the anxiety symptoms were identified four groups: low anxietysymptoms (19.4%), mild anxiety symptoms (44.6%), high anxiety symptoms (28.8%), and very severe anxiety symptoms (7.2%). The authors concluded that the most prevalent combined trajectory was mild symptoms of either depression or anxiety (Kuo et al., 2014).

Also, there was a prospective cohort research conducted by Xie et al., (2011) in China. The Chinese version of the EPDS was applied to measure PPD at 2 weeks after childbirth, with a score of +13 indicating PPD. The aim of this research was to investigate the likelihood of PPD in females who underwent CS. In the final analysis, 534 women were included in the study, of whom 415 (77.7%) had a cesarean delivery, with most of them having no medical indication. The researcher found that the rate of PPD was 21.7% among females who gave birth via cesarean section, compared to 10.9% among females who had a vaginal delivery.

In another prospective cohort study, Bell et al., (2015) aimed to inspect the connotations between different aspects of delivery and increased postpartum signs of anxiety and depression. The researcher conducted a secondary analysis of perinatal data, which included a sample size ranging from 4,657 to 4,946, from the Avon Longitudinal Study of Children and Parents. The findings showed that the EPDS measured heightened depression symptoms (with a score of 13 or more), while the Crown-Crisp Experiential Index was used to evaluate increased anxiety symptoms (with a score of 9 or more) at 2 and 8 months throughout postpartum phase. A more unfavourable impression of the recent delivery experience was linked with increased symptoms of anxiety at 2 months and 8 months throughout postpartum phase; however not linked with increased depression symptoms at either time point; also, the delivery type and immediate complications after childbirth were not linked to increased anxiety or depression symptoms.

In addition, there was a systematic review and meta-analysis performed by Moameri et al., (2019). The purpose of this research was to assess the association between CS and PPD. The following worldwide databases were explored in this research: Ovid, EMBASE, Science Direct, Web of Science, Scopus, and Medline till May 2017. The outcome revealed that 989 studies were reviewed, 32 of which were included in the

review because they matched the eligibility criteria. The authors stated that “the OR of the association between CS and PPD was adjusted to 1.15 (with a 95% confidence interval of 1.00 to 1.34), whereas the crude odds ratio was 1.36 (with a 95% confidence interval of 1.20 to 1.55). Additionally, the odds ratios for the association between elective and emergency CS and PPD were 1.29 (with a confidence interval between 1.12 and 1.49) and 1.36 (with a confidence interval between 1.20 and 1.55), respectively”. In addition, the pooled relative risk ratio of the correlation between CS and PPD in cohort studies was calculated to be 1.22 (with a 95% confidence interval of 0.94 to 1.58).

However, a study of Goker et al., (2012) sought to ascertain the impact of type of delivery on the likelihood of PPD. The study involved 318 pregnant females who applied for delivery. The EPDS was used during the 6th week postpartum visit. The results indicated that type there was no significant difference ($P > 0.05$) in EPDS scores based on age, education, gender, family type, income level, fear about birth, wanting the pregnancy, and gravidity. Participants who experienced vomiting throughout pregnancy, were housewives, and had a prior history of depression showed markedly higher scores on the EPDS scale ($P<0.05$). EPDS scores were unaffected by spontaneous vaginal delivery, emergency CS or elective CS.

Furthermore, Guglielminotti & Li, (2020) performed a retrospective cohort study in which to investigate CS cases performed in New York City hospitals from January 2006 to December 2013. The information was collected from 428,204 females undergoing CS delivery, including 34,356 performed by using general anesthesia. A total of 1158 women (95% CI, 2.5—2.9) needed admission to hospital for manage the severe PPD, of which 60% found for the period of readmission with a median of 164 days following discharge. Contrasted with females who have had spinal or epidural anesthesia, it was stated that general anesthesia for CS could raise the risk of PPD requiring admission to hospital, self-inflicted injury, and suicidal thoughts because it postpones the initiation of mother-to-baby skin-to-skin contact and breastfeeding, which lead to more acute and incessant postpartum pain.

According to a study of Carter et al., (2006) in which a Medline and PsychInfo databases were searched. All research papers on CS that assessed maternal mood from 10 days to 1 year post birth were evaluated. In which, 9 methodologically research,

involving only one randomized controlled trial, were evaluated separately. The nine research that presented acceptable summary statistics were combined in a meta-analysis. The purpose of this study was to look at the evidence supporting a link between CS and PPD. The findings confirmed that there was a total of 24 research examined the relationship between CS and PPD, of which 5 studies indicated a significant adverse association between CS and PPD, 15 indicated that there was no significant relationship, and 4 reported mixed results. With the exception of one study, methodologically superior research showed no significant association or mixed evidence for a link between CS and PPD. Meta-analyses of relevant research found no indication of a link between CS and PPD.

According to cross-sectional study of Ilska et al., (2020) which conducted to compare the early symptoms of PPD in females who had vaginal deliveries vs caesarean sections (emergency or elective), questionnaires were filled out by 224 women in early postpartum 2–7 days after delivery recruited from a government hospital in Poland. The findings pointed that the CS (particularly emergency CS under general anesthesia) is a risk factor for PPD, and the severity of pain suffered rises the potential severity of PPD. Assessment of factors related to postpartum pain and depression symptoms can assist midwives and doctors better counsel females about their delivery options and encourage better care of females who have both types of delivery experiences.

Another study was carried out in Shanghai, China, on 1204 mothers who gave birth at a baby-friendly hospital. This was a cross-sectional survey conducted six weeks after delivery to examine the relationship between PPD and sociodemographic, perinatal, and postpartum anxiety (PPA). The Self-Rating Anxiety Scale (SAS) and the EPDS were employed to gauge indications of depression and anxiety. The study discovered that symptoms of PPA were present in 15.2 percent of the mothers, while symptoms of PPD were observed in 23.2 percent of them. Additionally, the results showed that experiencing symptoms of PPD and fatigue were identified as risk factors for PPA symptoms. Conversely, it was observed that having support from family and feeling content with the childbirth experience had a protective effect (Liu et al., 2020).

Also, Dennis et al. (2013) conducted a descriptive cross-sectional study in which a sample of 522 females from the general population completed the State-Trait Anxiety Inventory (STAI). Furthermore, a self-report tool comprising of 20 items was used to

assess anxiety levels, with participants rating each item on a 4-point Likert scale. The total score ranges from 20 to 80, where higher scores indicate higher levels of anxiety. According to the study, 22.6% of females scored 440 or above on the STAI at one week postpartum, which decreased to 17.2% at four weeks and 14.8% at eight weeks. Using the cut-off score of 440, the study found that the STAI administered at one week postpartum accurately classified 84.0% of females at four weeks and 83.6% at eight weeks as either having or not having anxiety symptoms. Furthermore, there was a substantial relationship between the STAI scores obtained at one, four, and eight weeks postpartum. The study also found that females who scored 440 or above on the STAI at one week postpartum were 15.2 times more likely at four weeks (95%) and 14.0 times more likely at eight weeks to experience postpartum anxiety symptoms.

Finally, as per Wenzel et al.'s (2005) study, postpartum women are more likely to experience anxiety disorders than the general population, with estimates of incidence ranging from 6.1% to 27.9% during the first six months following delivery.

1.22 Studies about postpartum depression,and anxietyin Arabcountry

According to a cross sectional study that has been conducted by Goweda & Metwally, (2020) to estimate the prevalence of PPD and identify related risk factors in randomly chosen three Primary Health Care Centers affiliated to Suez governorate, Egypt. An interview questionnaire comprising possible risk factors for PPD was employed. The Arabic version EPDS was applied to assess the symptoms of PPD. The research included 237 postpartum women, according to the findings 58.6% (n=139) of women had a secondary level of education, 82.3% (n=195) were housewives, and 76.4% (n=181) had a CS. The approximate prevalence of PPD was 26.6%, with suicidal thoughts accounting for 4.6%. Factors considerably related to high EPDS scores were unhealthy newborn, an unplanned pregnancy, having more than 2 children, and bad relationship with the husband.

Another cross-sectional correlational study was conducted by Yehia et al., (2013) to examine the occurrence of PPD symptoms and psychosocial factors among Arabic Muslim Jordanian females who were serving in the military. Jordanian deployment-ready military females who had conceived a child within the prior year (n = 300) and worked in four clinics took part in the research. The EPDS, the Multidimensional Perception of Social Support, and the influence of Occasion Scale-Revised were

utilized. A total of 67% of research participants experienced mild to severe PPD symptoms, whereas 16% had elevated levels of indications of PPD symptoms. Also, 75% stated that they had acceptable social assistance, and about 75% expressed stress about the cut-off score. Additionally, there was a strong positive and critical connection between PPD symptoms and stress perception; there was a significant moderate unfavourable relationship between PPD symptoms and attitudes toward social assistance. Type of delivery, pregnancy intendedness, pay, family friendly help, and stress perception were the most significant indicators of PPD. There was a confirmedassociation between PPD and psychosocial factors, with females who had low levels of apparent stress and contentment with social aid having fewer symptoms of post pregnancy.

Moreover, there was longitudinal research conducted in Bethlehem sought to ascertain the prevalence of PPD and its risk factors among Palestinian women. A total of 101 women were included throughout registering their child's birth (within one week) at the Bethlehem branch of Ministry of the Interior. Face-to-face interviews were used to assess the included women, and telephone interviews were conducted one week, two weeks, six weeks, three months, and six months to follow up the participants. The Arabic version of EPDS was utilized in the interviews. Over the follow-up period, the researcher noticed that the prevalence of depression symptoms remained relatively steady (14-19%); the majority of depression symptoms appeared within one month of delivery; women who had depression symptoms at three months postpartum were more possible to have symptoms at six months. About 27.7% (n=28) of mothers fulfilled PPD criteria. PPD was linked with high parity, unplanned pregnancy, and gender of the child is not the desired one (Qandil et al., 2016).

On the other hand, Ayoub et al., (2020) conducted a systematic literature review research on PPD in the Arab Region. This study's methods included an evaluation of all peer-reviewed journal that published papers on PPD and associated risk factors among Arab women up until February 2016. A total of 25 papers were included in the review after searching on the following databases were explored: Arab psychnet, Springlink, Science Direct, PubMed, and EBSCOhost. PPD rates were found to be high in general, although prevalence rates were close to those found in other poor and lower-middle-income nations. Twelve studies found PPD prevalence ranging from 15 to 25%,

whereas seven studies reported that the prevalence was less than 15%, and six studies revealed that the prevalence was less than 25%. The findings pointed out the highly significant risk factors for PPD were personal or family history of depression, stressful lifetime events throughout pregnancy, marital conflicts, low social and husband support, formula feeding, ill baby, unwanted pregnancy, obstetric complications throughout pregnancy, and low income or socioeconomic status.

1.23 literature review conclusion

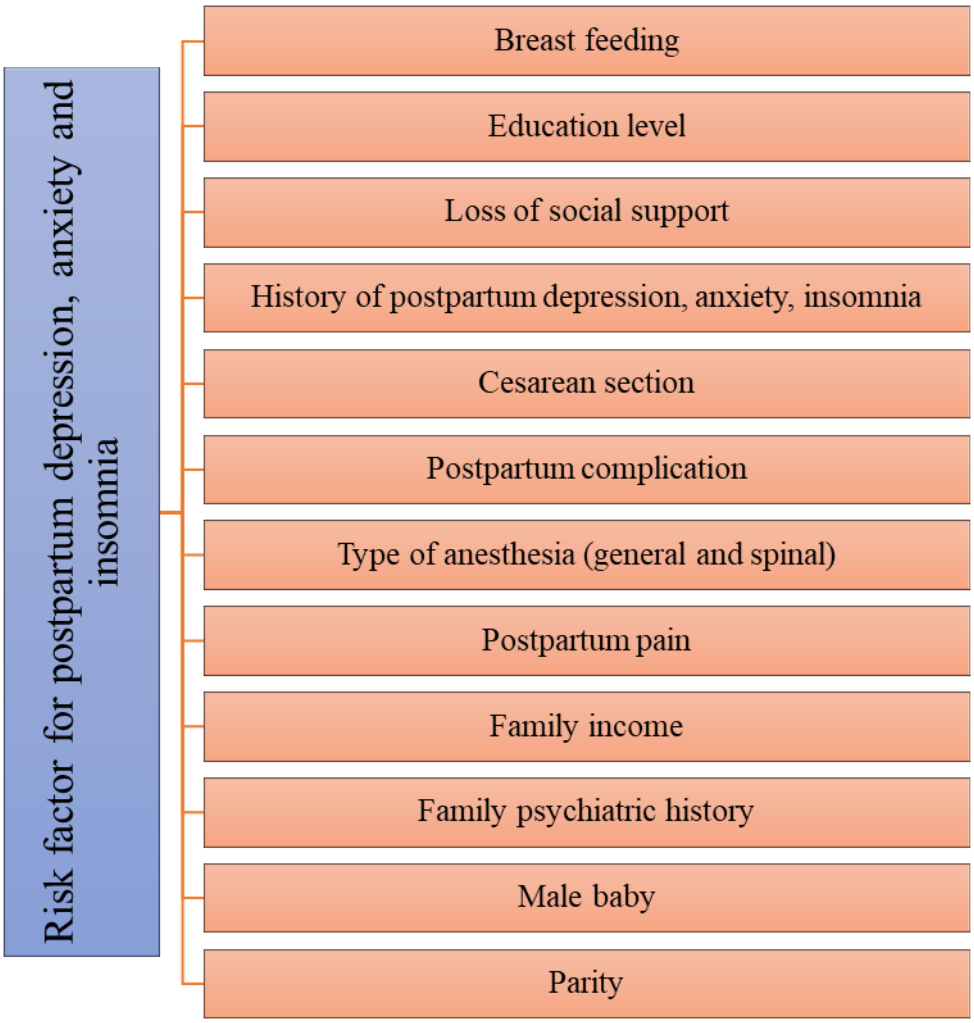
In many study researchers found woman who delivered by cesarean section high risk for postpartum depression and anxiety more than who delivered by normal delivery.

1.24 Conceptual framework:

According to the review of the available literature, the researcher established the conceptual framework. The conceptual framework is the map that directs the design & achievement of the study, and to summarize and clarify the study's variables, also it serves as a guiding tool for the research process and helps to enhance the importance and relevance of the findings. See Figure (2).

Figure 2

Risk factors of postpartum depression, and anxiety



Chapter Two
Methods

2.1 Overview

A quantitative prospective, cross-sectional comparativedesign was used in this study. Theresearcher compares between two groups: women who undergo normal delivery versus cesarean section group in relation to depression, and anxiety.

2.2 Study Design

A quantitative, prospective, cross-sectionalcomparativedesign was utilized in this study.

Where the quantitative method involves obtaining, evaluating, analysing, and scrutinizing numerical data, which can be employed to discover associations, patterns, and mean values, create forecasts, verify causal relationships, and extend outcomes to larger populations (Bhandari, 2022). Besides, a cross-sectional study is “a research design where data is collected and examined from a population at a particular point in time”(L. Thomas, 2022). Furthermore, in prospective studies, researchers gather a sample, classify participants, and then follow up over time to determine if they have a particular condition (Simkus, 2022).

2.3 Study Population

The target population involved females who have had cesarean section and those who have had normal delivery during the study period. Data collected after two and six weeks after delivery in Al Ittihad hospital. The overall count of these mothers in Nablus between November 2021 and June 2022 was roughly 6000, with an average of around 500 cases per month.

2.4 Site and Setting

This study was performed in Al Ittihad hospital postnatal department in at Nablus governorate.

2.5 Study Period

The study period was between November 2021 to June 2022.

It began in November 2021, following approval from the Institutional Review Board (IRB) at An-Najah National University and approval from Al Ittihad hospital. Data

collection was started on 15th of November 2021 until May 2022. After that, the process of inputting and analysing the data was finished in July 2022.

2.6 Sample Size

In this study, a group of 361 participants were chosen from the women who visited Al Ittihad hospital. The sample size was determined through the utilization of a formula for calculating sample size in net population in number of delivered women in West Bank in 2020 divided on number of months' 76000/12 =6000; 95% confidence level; confidence interval (0.05 = ±5). Total number of sample size is 361. The researcher recruited 183 from the CS group and 178 from normal delivery group.

Furthermore, the size of the sample was recognised by employing an online calculator for determining sample size (Appendix A).

2.7 Sampling Technique

The sampling method utilized in this study was convenience sampling as defined as non-probability sampling strategy that was used by researchers, in which the data was collected from suitably accessible respondents, it still is the most commonly used strategy for sampling as it's economical, uncomplicated, and incredibly, quick, and economical. In numerous cases, respondentsare willingly reachable to participate in the sample. (Simkus, 2023).

2.8 Inclusion and Exclusion Criteria

Inclusion Criteria

- All females who have delivered by CS in Al Ittihad Hospital from15th of November 2021 until May 2022.
- All females who have normal delivery in Al Ittihad Hospitalfrom15th of November 2021 until May 2022.

Exclusion Criteria

- Woman who delivered twins.
- Woman who has psychiatric disease such as (Depression, Obsessive compulsive disorder. etc.).
- Woman who refused to participate.

2.9 Instrument used in this study

In this study instrument (Appendix B) consists of three sections:

The first part of the study tool involved a self-administered questionnaire that was developed in collaboration with mental health professionals and the researcher's supervisor. The questionnaire was created by reviewing and modifying several questions and questionnaires from previous and related studies. The questionnaire was divided into three parts:

The first part: Patient's information: it consists of four sections including: socio-demographic data such as the mother's age, educational level, marital status, place of residency, level of income and employment status, smoking status and family type); medical and psychiatric history; childbirth experiences (age & sex of baby, planned pregnancy, number of children, type of delivery, planned caesarean delivery, type of anesthesia during delivery complication during delivery, satisfaction of the sex of the baby and feeding type); Finally, presence of support.

The second part: Edinburgh Postnatal Depression Scale (EPDS) in Arabic language was used, postpartum specific anxiety scale was using two weeks, and after six weeks postpartum, the first day after delivery, researcher has collected demographic data face to face then in 2 weeks and 6 weeks by phone. The questionnaire was filled out by phone, for many reasons. First, the difficulty of meeting the women, because each woman is from a different regions and difficult political situation such as barriers.Second, there is no referralsystem after childbirth. Third, most of the woman preferred to fill out the questionnaire by phone, due to them less of time and the difficulty of returning to the hospital and covid -19. The EPDS is a group of ten screening questions which may help in determine whether a parent exhibits signs of depression and anxiety that are typical of pregnant and postpartum women who suffer from these conditions and also in the months following delivery.

The third part: The Postpartum Specific Anxiety Scale (PSAS)developed by Dr. Victor Fallon and her colleagues in 2016 used to measures how frequently mothers feel parental and child anxiety throughout the first year of their babies' lives. The 51-item test examines four factors of anxiety, connected to the postpartum time. Factor 1 (Maternal Competence and Attachment Anxieties) includes 15-items covering anxieties

relating to the mother-child relationship, parenting competence, and maternal self-efficacy. Factor 2 (Infant Safety and Welfare Anxieties) has 11-items relating to fears about cot death, accidents, and infant diseases. Factor 3 (Practical Infant Care Anxieties) includes 7-items covering anxieties relating to baby care like sleeping, feeding, and daily routine. Finally, factor 4 (Psychosocial Adjustment to Motherhood) has 18-items relating to modification concerns since the delivery of the baby and about support and relationships, finances and work, sleep, and personal appearance management. Each and every respond has been given a score between 1 and 4 with the maximum total score of 204. The English-language version of the primary validation revealed a score of 112 or above and this may probably be specified in a clinical level of anxiety (Fallon et al., 2016). PSAS is universal tool and well known, with reliable and valid use (Cronbach's $\alpha = 0.93$) (Fallon et al., 2016).

The Arabic and English version of EPDS and English version of PSAS questionnaires are available online and can be used without permission, except the Arabic version of PSAS; the permission for using the Arabic version of PSAS was obtained from Sanaa Saad El-Din, who had previously translated PSAS and validated it in the Palestinian environment (Appendix C).

2.10 Reliability

The measurement technique used to assess variables must be reliable, as this indicates the degree to which the questionnaire is consistent and stable. This means that the measure is considered reliable if it produces consistent results each time the situation or factor is assessed.The study employed Cronbach's alpha coefficient to evaluate the internal consistency of the main domains of the questionnaire. The table below presents the Cronbach's alpha coefficients for the primary study domains utilizing the overall sample of 361 questionnaires:

Table 3

Cronbach's alpha coefficients for the main study domains (n=361).

Domain (Scale)	Number of Items	Cronbach's alpha
Depression Scale at 2 weeks post-delivery	10	0.80
Depression Scale at 6 weeks post-delivery	10	0.77
Anxiety Scale at 2 weeks post-delivery	50	0.95
Anxiety Scale at 6 weeks post-delivery	50	0.93

The results in the table above show that Cronbach's alpha coefficients for the depression scale are ranged between 0.77 - 0.80, and for the anxiety scale are ranged between 0.93 - 0.95, so that the questionnaire can reproduce the same results with high internal consistency and high reliability of constructs.

On the other hand, the test-retest method of reliability can be used to test how large the correlations between the scale at 2 weeks and the scale at 6 weeks, the results showed that the Pearson correlation coefficient between depression scale at 2 weeks post-delivery and depression scale at 6 weeks post-delivery is 0.971 and the Pearson correlation coefficient between anxiety scale at 2 weeks post-delivery and anxiety scale at 6 weeks post-delivery is 0.956, indicating high reliability levels of the used measurement scales.

2.11 Validity

Content-related validity evaluates whether the measurement method includes all the essential elements that are relevant to the construct being measured. To establish content-related validity, the study tool was evaluated by six professionals in the relevant field, who had a strong interest in the related issues.The research tool and aims were sent to the experts to provide them with an understanding of the study's objectives.

The researcher also assessed construct validity by computing the Pearson correlations between the total score of each main domain (scale) and its individual items. This approach measures the degree to which the items are related to their respective main domain or scale, and thus the extent of validity. The subsequent table presents the

results of Pearson correlations between the total score of each main domain and its individual items, using the full sample of 361 respondents:

Table 4

Pearson Correlation coefficients for the Depression Scale at 2 weeks post-delivery and at 6 weeks post-delivery (N=361)

Domain (Scale)	Pearson Correlations	P-values
Depression Scale at 2 weeks post-delivery	0.452 - 0.692	<0.001
Depression Scale at 6 weeks post-delivery	0.456 - 0.659	<0.001
Anxiety Scale at 2 weeks post-delivery	0.265 - 0.654	<0.001
Anxiety Scale at 6 weeks post-delivery	0.203 - 0.583	<0.001

2.12 Statistical Analysis

The data was entered, coded, cleaned, and interpreted, then it was analysed using the SPSS V25 program.

The descriptive analysis was utilized in this study to present the frequency and percentages of variables, including personal and social characteristics of the participants, and to explore the relationship between dependent and independent variables. Also, the study utilized a two-sided chi-square test at a significance level of 0.05 and a t-test to examine the differences between groups. Statistical significance was calculated at a p-value of ≤0.05 and a 95% confidence interval.

2.13 Data Collection

The researcher collected the data fromthe postpartum departments at Al Ittihad hospital, through interviews in a quiet location.

The interview process began with the researcher providing the mothers with a complete clarification of the study, its objectives, and the importance of providing accurate answers. Then the researcher collected data by phone to follow up the questionnaire.

Participants mothers interviewed and asked to fill out a questionnaire that includes questions about their socio-demographic dataat 1st day after delivery face to face. In addition, the researcher used the Arabic version of EPDS and also PSAS scale at 2 and 6 weeks after postpartum. For collecting the data and it's scoring the phone was used.

2.14 Ethical Consideration

Current study detailed in the Helsinki Declarations. This study permitted by “the Institution’s Review Board of An-Najah National University” (Appendix D). Additionally, approval letter from Al Ittihad hospital was obtained (Appendix E).

All respondents accepted to participate in this study by signing consent forms (Appendix F) after the researcher explained the study's goal and procedure.

All obtained data from study participants were kept confidential.

2.15 Data Security

The researcher took measures to ensure the security and confidentiality of the electronic data by storing it on a computer with a password protection and an encrypted flash drive. This was done to ensure that only the researcher had access to the data. The data was gathered and recorded in a Microsoft Excel file that was password-protected.

Chapter Three
Results

3.1 Overview

This section of the thesis presents the findings of the study, including the characteristics of the participants and the average proportion of responses for each item in the survey. A total of 361questionnaires were performed between the end of November 2021 and the end of May 2022 from post ward at Al Ittihad hospital. Questionnaires were taken at the 1st day after delivery to take demographic data then at two weeks after delivery and after 6 weeks.

3.2 Statistical Methods

The initial phase of data analysis involved data management, which was carried out in the following manner:

1. Over viewing the filled questionnaires.
2. Coding of questionnaires.
3. Data entry and data cleaning.

The second step of data analysis involved the utilize of the statistical software package for social sciences (SPSS Version 25), for data analysis. The various descriptive statistical techniques such as frequencies, proportions, means, and standard deviations were operated. To analyse the data, the subsequent statistical tests and methods were employed, and the P-value < 0.05 was deemed significant. Consequently, if the P-value is less than 0.05, the hypotheses of no differences or no relationships in means between study groups will be rejected:"

1. Independent Samples T-test for differences in depression and anxiety Scales at 2 and 6 weeks post-delivery between the cesarean delivery group and the normal delivery group.
2. Paired Samples T-test for differences in depression and anxiety scales within the cesarean delivery group and the normal delivery group between the 2 weeks post-delivery scales and the 6 weeks post-delivery scales.

3. One- and two-Way Analysis of Variance (ANOVA) test for differences in depression and anxiety scales at 2 and 6 weeks post-delivery according to the personal and demographic (Socio-demographic) variables.
4. Multivariate logistic regression used to measure predictors associated of depression and anxiety among delivery women in Nablus.

Distribution of the socio-demographic variables among the study participants

Table 5

Distribution of the socio-demographic variables among the study participants

Variable	Group	Frequency	Percentage
Age	Less than 18 years	2	0.6%
	18-22 years	55	15.2%
	23-27 years	130	36.0%
	28-37 years	140	38.8%
	38 years or more	34	9.4%
Level of education	Less than Tawjehi	75	20.8%
	Tawjehi	95	26.3%
	Bachelor	170	47.1%
	Postgraduate	21	5.8%
Marital status	Married	357	98.9%
	Divorced or Widow	4	1.1%
Place of residence	City	129	35.7%
	Village	189	52.4%
	Camp	43	11.9%
Family type	Extended	47	13.0%
	Joint family	61	16.9%
	Nuclear family	253	70.1%
Number of family members	3 or less	138	38.2%
	4-6	178	49.3%
	More than 6	45	12.5%
Family income	Less than 1880 NIS	12	3.3%
	1880-3000	125	34.6%
	More than 3000 NIS	224	62.0%
Work	Housewife	250	69.3%
	Worker	111	30.7%
Smoking	Yes	72	19.9%
	No	289	80.1%

Table 5 illustrates the socio-demographic characteristics among the study participants. The results show that the majority of participants (38.8%) fell within the age range of 28-37 years, while 36.0% were aged 23-27 years. The highest level of education was a bachelor's degree, constituting 47.1% of the participants, and a small proportion (5.8%) held a postgraduate degree. Marital status revealed that an overwhelming majority (98.9%) were married. Regarding place of residence, the majority lived in villages (52.4%), followed by cities (35.7%). Most participants belonged to nuclear families (70.1%), while a smaller percentage were part of joint families (16.9%) or extended families (13.0%). The number of family members indicated that nearly half of the participants (49.3%) had 4-6 family members, while 38.2% had three or fewer family members. Family income distribution revealed that the majority (62.0%) reported a family income higher than 3000 NIS. In terms of work status, a significant proportion identified as housewives (69.3%), while 30.7% were workers. Smoking habits showed that 19.9% of participants reported being smokers, with the majority (80.1%) not smoking.

Table 6

Distribution of the obstetric information among the study participants

Variable	Group	Frequency	Percentage
Allergy	Yes	33	9.1%
	No	328	90.9%
Surgical history	Yes	152	42.1%
	No	209	57.9%
Medical disease history	Yes	38	10.5%
	No	323	89.5%
Family psychological history	Yes	25	6.9%
	No	336	93.1%
Gravity	1	62	17.2%
	2-3	148	41.0%
	More than 3	151	41.8%
Parity	1 or less	133	36.8%
	2-3	99	27.4%
	More than 3	129	35.7%
Abortion	No	236	65.4%
	1-2	114	31.6%
	More than 2	11	3.0%
Gestational age	Less than 16 weeks	28	7.8%
	16-26 weeks	16	4.4%
	More than 26 weeks	317	87.8%
Number of foetuses	1 or less	320	88.6%
	2 or more	41	11.4%
Number of male babies	1 or less	231	64.0%
	2 or more	130	36.0%
Number of female babies	1 or less	247	68.4%
	2 or more	114	31.6%
Type of delivery	Caesarean	183	50.7%
	Normal	178	49.3%
Planned caesarean delivery	Yes	92	50.3%
	No	91	49.7%
Type of anesthesia during delivery	Full	104	56.8%
	Partial	79	43.2%
Health problems after delivery	Yes	27	7.5%
	No	334	92.5%
Type of feeding	Breast feeding	195	54.0%
	Bottle feeding	79	21.9%
	Mixed feeding	87	24.1%

Table 6 showed obstetric information among the study participants. The results showed that 90.9% of the participants had allergies, 42.1% underwent surgery, and 10.5% had medical diseases. However, 6.9% reported a family psychological history, and 10.5% had other diseases. The gravity scores were distributed with 41.0% scoring 2-3 and

41.8% scoring >3, while 17.2% scored one. Regarding parity, the results showed that 36.8% had a parity of 1 or less, 27.4% had a parity of 2-3, and 35.7% had a parity of more than 3. The results showed that 31.6% had 1-2 abortions, and only 3.0% of them had more than two abortions. Most participants had a gestational age of more than 26 weeks (87.8%). The results showed that 11.4% had number of fetuses was predominantly having two or more fetuses. The majority of deliveries were cesarean (50.7%), with 50.3% being planned cesarean deliveries. Full anesthesia was used in 56.8% of the deliveries, while 43.2% had partial anesthesia and after delivery, 7.5% of participants experienced health problems.

Table 7

Distribution of the psychological stress after childbirth and Family support among the study participants

Variable	Group	Frequency	Percentage
Psychological stress after childbirth	Yes	110	30.5%
	No	251	69.5%
Family support	Yes	264	73.1%
	No	97	26.9%

Table 7 showed that Table 7 shows psychological stress after childbirth was reported by 30.5% and 73.1% had family support.

Table 8

Comparison of depression between 2 and 6 weeks post-delivery among the study participants

Variable	Group	Depression post-delivery 2 weeks N	2 weeks %	6 weeks N	6 weeks %	P-value
1-I have been able to lough and see the funny side of things:	As much as I always could	127	35.2%	127	35.2%	0.368
	Not quite as much now	111	30.7%	112	31.0%	
	Definitely not so much now	96	26.6%	95	26.3%	
	Not at all	27	7.5%	27	7.5%	
2- I have looked forward with enjoyment to things:	As much as I ever did	126	34.9%	126	34.9%	0.368
	Rather less than I used to	127	35.2%	128	35.5%	
	Definitely less than I used to	71	19.7%	70	19.4%	
	Hardly at all	37	10.2%	37	10.2%	
3-I have blamed myself unnecessarily when things went wrong:	No never	59	16.3%	54	15.0%	0.092
	Not very often	90	24.9%	91	25.2%	
	Yes, some of the time	140	38.8%	144	39.9%	
	Yes, most of the time	72	20.0%	72	19.9%	
4-I have been anxious or worried for no good reason:	No not at all	49	13.6%	46	12.7%	0.016
	Hardly ever	102	28.3%	93	25.8%	
	Yes sometimes	160	44.3%	168	46.5%	
	Yes, very often	50	13.8%	54	15.0%	
5-I have felt scared or panicky for no very good reason	No not at all	52	14.4%	34	9.4%	0.000*
	No not much	126	34.9%	128	35.5%	
	Yes sometimes	127	35.2%	138	38.2%	
	Yes, quite a lot	56	15.5%	61	16.9%	
6- Things have been getting on top of me:	No, I have been coping as well as ever	77	21.3%	70	19.4%	0.014
	No most of the time I have coped quite well	129	35.7%	125	34.6%	
	Yes, sometimes I haven't been coping as well as usual	111	30.7%	113	31.3%	
	Yes, most of the time I haven't been able to cope at all	44	12.3%	53	14.7%	
7-I have been so unhappy that I have had difficulty sleeping:	No not at all	70	19.4%	53	14.7%	0.000*
	Not very often	107	29.6%	108	29.9%	
	Yes sometimes	147	40.7%	156	43.2%	
	Yes, most of the time	37	10.3%	44	12.2%	
8-I have felt sad or miserable	NO not at all	59	16.3%	40	11.1%	0.000*
	Not very often	133	36.8%	123	34.1%	
	Yes, quite often	138	38.2%	156	43.2%	
	Yes, most of the time	31	8.7%	42	11.6%	
9-I have been so unhappy that I have been crying:	No never	94	26.0%	72	19.9%	0.000*
	Only occasionally	125	34.6%	138	38.2%	
	Yes, quite often	101	28.0%	109	30.2%	
	Yes, most of the time	41	11.4%	42	11.7%	
10-The thought of harming myself has occurred	Never	176	48.8%	123	34.1%	0.000*
	Hardly ever	75	20.8%	105	29.1%	
	Sometimes	77	21.3%	100	27.7%	
	Yes, quite often	33	9.1%	33	9.1%	

Table 8 showed the depression scale differences at 2 and 6 weeks post-delivery. Items assessing humor, with 35.2% at 2 weeks and 35.2% at 6 weeks; enjoyment of activities, with 34.9% at both time points; and self-blame, with 38.8% at 2 weeks and 39.9% at 6 weeks, showed non-significant differences between the time points. However, the results showed that there is statistically significant different between anxiety post-delivery of 2 weeks compared to 6 weeks regarding anxiety, feeling overwhelmed, sleep quality, overall mood, frequency of crying, and thoughts of self-harm exhibited statistically significant differences (P<0.05).

Table G.1 in appendix G showed the differences in anxiety scale responses at 2 and 6 weeks post-delivery for variables 1 to 50. Significant differences were found for various items. For example, Item 1 (concerning negative thoughts about the baby-parent relationship), participants reporting "Not at all" decreased from 45.2% at 2 weeks to 14.1% at 6 weeks, while those with negative thoughts increased from 24.9% to 37.7%. Similar trends were observed for feelings of inadequacy in caring for the baby (Item 2), worries about the bond with the baby (Item 4), and concerns about the baby's contentment with others (Item 5). Furthermore, anxiety about one's capabilities and coping abilities showed significant differences in several items. However, not all items indicated significant changes, such as worries about the baby's sleep duration (Item 31).

Table 9

Comparison of depression and anxiety Scale at 2 and 6 weeks post-delivery among the study participants

Variables	Post-delivery		Paired t-test	*p-value*
	2 weeks Mean ± SD	6 weeks Mean ± SD		
Depression score (Total score) (10 items, Max score = 30)	13.14±5.63 (0-30)	13.97±5.29 (0-30)	11.959	0.000*
Anxiety score (50 items, Max score = 4)	2.27±0.49 (1.04-4)	2.48±0.4 (1.56-4)	25.513	0.000*

Table 9 showed the comparison of depression and anxiety scores at 2 and 6 weeks post-delivery among participants. The mean depression score at 6 weeks post-delivery (13.97±5.29) was higher than the mean score at 2 weeks post-delivery (13.14± 5.63). The paired t-test showed there is a significant difference between the two-time points (t=11.959, P<0.05), indicating a statistically significant increase in depression symptoms from 2 to 6 weeks post-delivery. Similarly, the mean anxiety score at 6

weeks post-delivery (2.48±0.4) was higher than the mean score at 2 weeks post-delivery (2.27±0.49). The paired t-test also showed a significant difference between the two-time points (t=25.513, P<0.05), suggesting a statistically significant increase in anxiety levels from 2 to 6 weeks post-delivery.

Table 10

Comparisons of depression and anxiety Scale at 2 and 6 weeks post-delivery among the study population

Variable	Group	Post-delivery				P-value
		2 weeks		6 weeks		
		N	%	N	%	
Depression score	Mild Depression (0-9)	94	26.0%	72	19.9%	0.000*
	Moderate Depression (10-12)	44	12.2%	49	13.6%	
	Severe Depression (13+)	223	61.8%	240	66.5%	
Anxiety score	Very Mild	58	16.1%	7	1.9%	0.000*
	Mild	201	55.7%	175	48.5%	
	Moderate	90	24.9%	167	46.3%	
	High	12	3.3%	12	3.3%	

Table 10 illustrates the comparisons of depression and anxiety scales at 2 and 6 weeks post-delivery. At 2 weeks post-delivery, 16.1% had very mild anxiety, 55.7% had mild anxiety, 24.9% had moderate anxiety, and 3.3% had high anxiety. At 6 weeks post-delivery, the proportions were 1.9% for very mild anxiety, 48.5% for mild anxiety, 46.3% for moderate anxiety, and 3.3% for high anxiety. A significant difference was found between the two time points, indicating that anxiety symptoms increased from 2 to 6 weeks post-delivery (P<0.05).

participants at 2 weeks and 6 weeks post-delivery, focusing on various socio-demographic variables. The results showed significant difference in depression levels regarding age groups, education levels, marital status, place of residence, family types, and the number of family members (P<0.05). However, family income and work status were not significantly associated with changes in depression scores (P>0.05).

Similar patterns were observed for anxiety scores, with younger participants, lower education levels, being married, and living in cities, villages, and camps showing significant increases in anxiety scores over time. Family types and the number of family members also had significant associations with changes in anxiety scores (P<0.05).

Family income, work status, and smoking status did not show significant differences in anxiety scores (P>0.05).

Table G.3 in appendix G showed the comparisons of depression and anxiety scale scores at 2 and 6 weeks post-delivery among women with different obstetric information. For depression, significant differences were found in several variables such as allergies, a history of surgical procedures, medical diseases, and a family psychological history had higher depression scores at 2 weeks post-delivery compared to those without these conditions. Gravity, parity, abortion, gestational age, number of fetuses, number of male and female babies, type of delivery, planned cesarean delivery, type of anesthesia during delivery, health problems after delivery, and type of feeding were also associated with significant differences in depression scores at both 2 and 6 weeks post-delivery (P<0.05). Regarding anxiety, similar significant differences were found in the same variables as depression such as allergies, a history of surgical procedures, medical diseases, and a family psychological history had higher anxiety scores at 2 weeks post-delivery compared to those without these conditions. Gravity, parity, abortion, gestational age, number of fetuses, number of male and female babies, type of delivery, planned cesarean delivery, type of anesthesia during delivery, health problems after delivery, and type of feeding were also associated with significant differences in anxiety scores at both 2 and 6 weeks post-delivery (P<0.05).

Table G.4 in appendshowed that the comparisons of depression and anxiety scale scores at 2 and 6 weeks post-delivery among participants experiencing psychological stress after childbirth and those receiving family support Regarding depression, the results showed that participants experiencing psychological stress after childbirth had significantly higher depression scores at both 6 weeks compared to 6 weeks post-delivery. Similarly, participants without family support had significantly higher depression scores at 6 weeks compared 2 weeks post-delivery (P<0.05). In terms of anxiety, participants experiencing psychological stress after childbirth exhibited significantly higher anxiety scores at 6 weeks compared 6 weeks post-delivery. Additionally, participants without family support had significantly higher anxiety.

Chapter Four
Discussions and Conclusions

4.1 Discussion

Postpartum anxiety and depression are prominent mental health issues that have a substantial impact on mothers following the delivery. The objective of this research is to investigate the prevalence of postpartum anxiety and depression in mothers who deliver their babies via caesarean section in comparison to mothers who deliver their babies via vaginal delivery in the district of Nablus. The selection of the type of delivery might have consequences for a woman's psychological well, given that caesarean sections include surgical procedures and may introduce supplementary sources of stress. Through an examination of this subject within the framework of Nablus, this research attempts to elucidate an individual experiences of women in this locality. Gaining insight into the possible differences between both of these methods of delivery may contribute to the knowledge base of the health care practitioners and administrations, enabling them to provide appropriate support and treatments for women who are at risk of experiencing postpartum anxiety and depression.

The findings indicated the prevalence and proportions of several socio-demographic factors, including the participant's age, marital status, education, type of the family, number of individuals in the family, income of the family, place of living, smoking habits, and employment status. A study of the age distribution for the individuals who participated might provide valuable data into the demographic composition of the participants. The findings indicate that there was a relatively low percentage (0.6%) of individuals under the age of 18 among the participants, suggesting that the research probably had a restricted sample size in terms of younger people. Furthermore, the study indicates that a proportion of the individuals included in the research fell within the ages of 18-22 years is 15.2%, indicating that this particular group of individuals was somewhat represented among the participants in the study. Also, the researcher observed a higher prevalence (36.0%) of participants within the age range from 23-27 years. Likewise, the findings indicate that individuals between the ages of 28 and 37 constituted the greatest proportion, accounting for 38.8% of the total sample. This observation suggests a notable representation of individuals among the aforementioned age group. The research's findings reveal that a group of the respondents from the older

age ranges were 38 years or more, which represents (9.4%), hence showing the research included a subgroup of individuals from the older age groups as well.

The findings underscore the categorization of individuals according to their educational background. The findings indicate that a proportion of those surveyed had an educational attainment that fell under the Tawjehi level. Likewise, the study indicates that a proportion of the participants had educational attainment at the Tawjehi level, implying that another subset of the participants in the study had successfully fulfilled the requirements of the Tawjehi level of education. The findings additionally indicate that a substantial majority of those who participated had a bachelor's degree, suggesting that a considerable segment of the study population had successfully finished their undergraduate studies. Furthermore, the data indicates that a minority of those who participated had obtained postgraduate degrees, indicating that a smaller subset of individuals in the study population were interested in educational attainment following their undergraduate studies. The data displays the educational backgrounds of participants at all levels, with a large percentage having a bachelor's degree.

The data indicates that a large fraction of the participants was married. In addition, the results of the study show that just a small proportion of the people who participated were either divorced or had been bereaved. According to the results, a sizeable fraction of the sample population lived in an urban setting, which points to urbanisation of the sample. Also, the data shows that a particular percentage of those surveyed lived in a village, which is indicative of a rural location of living. In addition, it has been reported that a proportion of those involved lived in a camp. Most participants belonged to nuclear families. A fraction of participants lived in joint families. The findings suggests that some individuals had extended families.

According to the data, a portion of the participants had families consisting of three people or less, which is indicative of reduced average family sizes overall. In addition to this, it was mentions that there were a proportion of families had between four and six individuals, which is indicative of a home with a typical size. Finally, it is demonstrated that there were a proportion had more than six members of their family, which is representative of families with greater sizes.

The findings emphasise the fact that a proportion of respondents reported a monthly salary of no more than 1,880 NIS, showing that the sample population as a whole falls

into the lowest-income group. In addition to this, it indicates that a proportion had a monthly salary that fell somewhere between 1,880 and 3,000 NIS, which is the middle-income bracket. In addition, it claims that the majority of participants indicated a family income that was above 3,000 NIS, which indicates that the participants fall into a higher income group.

Moraes et al. (2006) and Bener et al. (2012) each carried out their own research to investigate the prevalence of postpartum depression (PPD) and the variables that are linked with it. Both studies came to the same conclusion, which is that a poor family income is associated with a greater likelihood of PPD. It was shown that puerperal girls whose families had low incomes had a greater likelihood of having depression, and the incidence of PPD rose as the income of the household went down. Furthermore, the research conducted by Bener et al. (2012) found that women whose families had lower earnings were considerably more probably to be at an elevated risk for PPD when compared to women whose families had higher incomes.

The findings reveal that a certain number of the respondents considered themselves to be housewives. This suggests that a sizeable proportion of the sample was made up of women who were largely responsible for taking care of domestic tasks. In addition, it is stated that a proportion of the participants were employees, which indicates the existence of individuals who were actively involved in the workforce. According to the findings, a proportion of people admitted to smoking, which shows that some of the people who took part in the study did, in fact, smoke. In addition to this, the majority of the respondents did not participate in the habit of smoking. The current research provides a detailed examination of the socio-demographic characteristics of people who enrolled. This analysis covers factors such as marital status, location of residence, type of family, the total number of family members, salary of family members, the use of cigarettes, and career status. The results of the current study are consistent with those found by Zejnullahu et al. (2021) and Xie et al. (2011) respectively.

The current research investigates the frequency of occurrence as well as the ratios of a number of obstetrical attributes among the subjects that took part in the study. These attributes are past experiences of surgical procedures, the presence of past psychological illnesses in family members, history of medical problems, allergies, gravity scores, parity, history of abortion, gestational age, the overall number of foetuses, number of

female and male newborns, the method of delivery, planned caesarean delivery, anaesthesia throughout delivery, medical problems after the child's birth and ways of feeding. A significant proportion of the participants indicated the presence of allergies; however, a subset of individuals disclosed a history of surgical interventions or medical conditions. Only some of the people who took part in the study provided information that their families were affected by psychiatric problems. The women who took part in the study had a variety of different features, such as different gravity scores, parity levels, gestational ages, abortion histories, numbers of foetuses, and gender-different babies. The prevalence of caesarean section births was much greater, and the women who were examined presented various rates of planned CS births in addition to diverse approaches to anaesthesia. Some people had postpartum health complications, while others did not have any difficulties in this area after giving birth. In addition, newborn feeding practises varied. The above findings provide details about the participants' obstetric characteristics. The results shown here are in line with those found in research carried out by Rauh et al. (2012) and Olieman et al. (2017), both of which revealed that a sizeable number of persons suffered from allergies, while a subset had undergone surgical operations in the past or were suffering with medical illnesses. The findings presented here are compatible with these studies.

The study examined the frequencies and percentages of psychological stress after childbirth and family support. Findings indicated that a portion of the participants reported experiencing psychological stress after childbirth, while the majority did not. Family support was available to a significant proportion of the participants, while a smaller percentage did not have family support. Zanardo et al., (2018) and Padawer et al., (2018) had similar the current study psychological stress after childbirth and family support. Some participants experienced postpartum stress, while most did not. A significant proportion had family support, but a smaller percentage lacked it.

The findings of a study analysing depressive symptoms at 2 and 6 weeks after delivery. The results include ten items measuring different aspects of depression, along with groups, depression scores, and associated p-values. The analysis involved a total of participants. Item 1 assessed the ability to find humor, showing stable percentages at both time points with a non-significant p-value. Similarly, item 2 examined activity enjoyment, revealing consistent percentages and a non-significant p-value. Item 3

explored self-blame, indicating a slight increase at 6 weeks without statistical significance. Items 4 and 5 examined anxiety and panic, showing significant differences between groups. Item 6 revealed fluctuations in feeling overwhelmed, with a significant difference. Items 7 and 8 showed significant differences in sleep quality and overall mood. Item 9 assessed crying frequency, revealing significant differences. Lastly, item 10 explored self-harm thoughts, indicating notable differences and a significant p-value. Overall, the study highlights differences in depression symptoms between 2 and 6 weeks post-delivery. The current results agree with Al Rawahi et al., (2020) showed that depressive symptoms at 2 and 6 weeks post-delivery, using ten items to measure various aspects of depression. The results showed stable percentages and non-significant p-values for items assessing humor and activity enjoyment. Self-blame slightly increased without significance. Significant differences were found for anxiety, panic, feeling overwhelmed, sleep quality, overall mood, crying frequency, and self-harm thoughts. Overall, the study highlights differences in depression symptoms during the post-delivery period.

Tables in chapter three presents the results of a study examining differences in anxiety levels at 2 and 6 weeks post-delivery. The results include 50 variables related to anxiety symptoms, with corresponding response percentages and p-values. Significant differences were found in several variables. For example, there was a significant decrease in participants reporting negative thoughts about their relationship with the baby from 2 to 6 weeks. Conversely, the proportion of participants feeling that their baby would be better cared for by someone else increased. Similar patterns were observed for other variables, such as feelings of incompetence in meeting the baby's basic care needs, worries about the bond with the baby, and concerns about other mothers coping better. However, not all variables showed significant differences between the two time points, such as worries about the baby's weight, completing household chores, and appearance. In general, the research elucidates the variations in anxiety symptoms observed among postpartum individuals and offers valuable understanding on certain domains of apprehension and enhancement across the duration of 2 to 6 weeks. The findings presented in this study are consistent with the findings that were reported by Kuo et al. (2014) and Lin et al. (2022) which demonstrated a potential association between elevated risk of PPD and "prenatal anxiety, early postoperative

occurrence of PPD symptoms, and pain experienced at six weeks after delivery" among women who have CS.

The results indicate a substantial increase in symptoms of anxiety and depression throughout the period spanning from two to six weeks after childbirth. The mean scores pertaining to anxiety and depression exhibited an increase at the six-week in comparison to the two-week, suggesting a progressive deterioration of symptoms as the time progressed. The results emphasise the need for postpartum mothers' mental health to be monitored and supported in the first few weeks after delivery. Further research is required in order to explore the various factors contributing to the deterioration of depressive and anxiety disorders, in addition to establish particular techniques that can effectively treat these difficulties. Researchers Wang et al. (2022) found that there was a significant increase in the symptoms of both anxiety and depression over the time period extending from two weeks to six weeks following delivery. The 6-week mean scores increased, indicating symptom worsening. This highlights the need for postpartum mental health monitoring and treatment, as well as further research and targeted therapies.

The 6-week mean depression score was higher than the 2-week score, indicating an increase in depression symptoms. In the same way, it was observed that the mean score of anxiety at the 6-week had a greater magnitude compared to the score at the 2-week, indicating a rise in levels of anxiety. The results mentioned above underscore the necessity of monitoring and attending to mental health issues throughout the postpartum phase, underscoring the significance of offering suitable support and treatments to enhance postpartum mental wellness. Additional studies can investigate the many elements that contribute to these elevations and design focused therapies for women who are suffering postpartum anxiety and depression. According to the study published by Wenzel et al. (2005), it was observed that postpartum women possess a greater propensity for developing anxiety disorders in comparison to the population as a whole; with the incidence rates throughout the initial six months after childbirth were estimated to range from 6.1% to 27.9%. While Dennis et al. (2013) performed descriptive cross-sectional research with the aim of evaluating levels of anxiety among mothers after childbirth. A decrease in levels of anxiety was seen throughout the period following childbirth, whereas a strong association was found amongst anxiety scores collected at

various time intervals. Women who had greater scores on anxiety assessments one week after giving birth were shown to have a greater likelihood of experiencing symptoms of postpartum anxiety at both the fourth and eighth weeks after childbirth.

The findings indicated that a significant proportion of the individuals had severe depression and mild anxiety at the two-week after childbirth. At 6 weeks post-delivery, the proportions remained similar, indicating a prevalence of severe depression and moderate anxiety. The comparisons between the two time points showed significant differences for both depression and anxiety scores. These findings suggest an increase in the prevalence of depression and anxiety symptoms from 2 to 6 weeks post-delivery. The study by Tan et al. (2021) found a significant association between postnatal depressive and anxiety disorders in nulliparous women, emphasizing the importance of pain management during childbirth for mental health. The systematic review by Lara-Cinisomo et al. (2021) examined technology-based interventions for perinatal depression and anxiety in Latina and African American women, finding promise in culturally tailored approaches for improving mental health outcomes.

The present study examined the changes in depression and anxiety scores among postpartum participants at 2 weeks and 6 weeks post-delivery, focusing on various socio-demographic variables. The findings demonstrated noteworthy differences in depression scores throughout several demographic factors, including categories of age, levels of education, marriage status, location of living, type of the family, number of individuals in the family, and income levels for families. Individuals who were younger, had a lower level of education and were married exhibited considerable rises in score of depression from two to six weeks after delivery. Participants who lived in various environments, belonged to various family types, and had varied numbers of relatives all had significant rises in the score of depression. Nevertheless, the analysis revealed that there was no significant impact on changes in depression scores based on employment status and smoking. The study findings revealed comparable patterns in anxiety scores, whereby statistically significant elevations were noted amongst individuals in the younger age group, individuals with a smaller degree of educational attainment, and participants who were married. Differences in score of anxiety were further seen among subjects living in varied environments, belonging to distinct family types, and possessing variable numbers of close relatives. Nevertheless, the alterations in scores of

anxiety were not shown to be substantially influenced by factors such as income of the family, employment status, and smoking habits. These findings highlight the importance of considering socio-demographic factors when assessing postpartum depression and anxiety and provide insights for targeted interventions to address mental health concerns during the postpartum period. The study by Smorti et al. (2019) conducted a comprehensive analysis of postpartum depression risk factors, highlighting the significance of socio-demographic, individual, relational, and delivery characteristics. Gotlib et al. (1989) high prevalence rates and demographic characteristics associated with depression in pregnancy and the postpartum period. Giardinelli et al. (2012) investigated the prevalence and risk factors of depression and anxiety in the perinatal period in an Italian sample. Overall, these studies contribute to current study for identifying significant variations based on socio-demographic variables such as age, education, marital status, residence, family type, and income. Younger age, lower education, and marriage were associated with increased depression and anxiety scores, highlighting the need for targeted interventions.

The findings from the study examining depression and anxiety scale scores at 2 and 6 weeks post-delivery, considering various obstetric factors, provide valuable insights into the impact of these factors on maternal mental health during the postpartum period. The analysis of the data reveal that there are significant variations in the levels of depression and anxiety experienced by women who have a history of allergic responses, a history of previous surgical procedures, physical illnesses, and a history of the existence of a psychiatric disease among family members, in addition to having a variety of obstetric concerns. These findings emphasise the necessity of addressing these factors when it comes to the delivery of services related to maternal health. This finding is in line with the findings of a study conducted by Xiong et al. (2021), who emphasised the significance of postpartum depression, anxiety, and pain by taking into consideration a variety of obstetric concerns. In addition, a longitudinal study that was carried out by Luciano et al. (2022) offers more evidence to corroborate the link between anxiety and depression scale scores throughout the course of the periods of two and six weeks following labour, taking into consideration a variety of obstetric variables. Besides, the research that was carried out by Long et al. (2020) contributes to the current body of information by evaluating the psychometric properties of the Edinburgh Postnatal Depression Scale in a group of women who were getting obstetric care. The reliability

of this screening tool for assessing levels of anxiety and depression throughout two and six weeks following delivery, as well as its connection with numerous obstetric factors, is the particular emphasis of this line of research. The results of earlier research, as well as the findings of the current study, indicate the necessity of attention to the mental well-being of mothers during the postpartum period. These findings, when combined, give helpful insights for medical professionals working in the area of obstetrics.

The current research aimed to examine the differences in anxiety and depression scale scores between individuals who experienced psychological stress post-delivery compared to those who received family support, at two and six weeks after childbirth. The findings of the study indicated that those who encountered psychological stress subsequent to delivery and were devoid of familial support had notably elevated levels of anxiety and depression over both assessed periods, in contrast to individuals who did not experience stress and received support from their families. This underscores the adverse effects of psychological stress and lack of support on the mental well-being of individuals in the postpartum period. The aforementioned results demonstrate the significance of including these elements into treatment options designed to enhance mother well-being in the postpartum phase. Numerous scientific investigations have been conducted to explore the association between stresses associated with delivery and the occurrence of symptoms pertaining to anxiety and depression. For example, an investigation carried out by Bradshaw et al. (2022) revealed an associated positive relationship between elevated stress levels in women during the postpartum phase and an increased likelihood of developing symptoms of depression. In the same direction, the investigation conducted by Koc et al. (2021) revealed a positive association between the absence of social support in postpartum women and an increased susceptibility to the occurrence of anxiety symptoms. These studies highlight the negative consequences of psychological stress and lack of support on postpartum mental health, aligning with the findings of the present study. Furthermore, interventions targeting these factors have shown promising results in promoting maternal well-being. For instance, a meta-analysis conducted by Liu et al. (2020) revealed that exercise on pregnancy and postpartum fatigue focusing on reducing stress and enhancing social support during the postpartum period led to significant improvements in maternal mental health outcomes. Taken together, the present study contributes to the existing body of research by

reinforcing the importance of addressing psychological stress and lack of support in interventions aimed at promoting maternal well-being during the postpartum period.

The current study conducted logistic regression analyses to identify predictors associated with depression and anxiety among delivery women in Nablus. The findings revealed that socioeconomic factors such as level of education, marital status, place of residence, and family income did not show significant associations with depression. However, family type, experiencing psychological stress after childbirth, and lack of family support were found to be significantly associated with depression. Additionally, for anxiety, level of education, family size, and type of feeding demonstrated significant associations. Experiencing psychological stress after childbirth and lack of family support were also significantly associated with anxiety.

These results are consistent with previous research that has explored the relationships between various factors and postpartum mental health outcomes. For instance, Bianciardi et al. (2020) found that insecure attachment styles, which are related to family dynamics and support, were associated with depression during pregnancy and the postpartum period. Pariente et al. (2020) found that among the predictors, family type was significantly associated with depression, with women from nuclear families having higher odds of depression. Allergies, experiencing psychological stress after childbirth, and lack of family support were also significantly associated with higher odds of depression and anxiety. Other socioeconomic, medical, obstetric, and psychological factors did not show significant associations with depression or anxiety. These findings highlight the importance of family-related factors and psychological stress in the development of postpartum depression and anxiety. Furthermore, Liu et al. (2021) investigated mental health among pregnant women and found that associated with poorer mental health outcomes. Taken together, these studies align with the current findings, highlighting the significance of family-related factors, psychological stress after childbirth, and lack of support in predicting depression and anxiety among postpartum women. The current study adds to the existing literature by focusing specifically on delivery women in Nablus, providing valuable insights into the context of postpartum mental health in this population.

4.2 Conclusion

The study findings reveal a significant increase in depression and anxiety scores from 2 to 6 weeks post-delivery, emphasizing the importance of addressing mental health concerns during the postpartum period. Although depression symptoms slightly decreased, the prevalence of anxiety symptoms remained stable. Socio-demographic factors such as age, education level, marital status, place of residence, family type, and family income were associated with variations in depression and anxiety scores. Participants who were younger, had lesser levels of education, and were married had elevated levels of symptoms. The absence of familial support continuously exhibits a positive correlation with elevated levels of symptoms of depression and anxiety, hence emphasising the need of systems that provide social support. Elevated levels of symptoms were shown to be connected with medical issues, including allergies, as well as psychological factors like as feeling stress following delivery. The impact of obstetric characteristics on anxiety levels was shown to be varied, but smoking, employment status, and type of delivery did not exhibit any statistically significant relationships. The findings from the multivariate logistic regression study underscore the necessity of adopting a holistic strategy to management of postpartum mental health issues, which takes into account the interaction between personal characteristics, social factors, and environmental variable Recommendation

1. It is important to offer early intervention as well as assistance services to successfully deal with mental health issues and facilitate improved the outcomes of mental health in the period following childbirth.
2. An educational intervention has to be applied throughout the postpartum period with the aim of providing knowledge pertaining to coping techniques, managing stress, and awareness of mental health.
3. Promoting family engagement and fostering understanding of the significance of support in the context of postpartum mental health might provide favourable outcomes for a female's overall welfare.
4. Practitioners in the health care field ought to have knowledge about the possible influence of medical issues, like allergy symptoms, on the mental well-being of women after childbirth. It is vital for them to contemplate suitable treatments or referrals for women experiencing these illnesses.

5. Health-related initiatives and interventions have to take into account the environmental variables that might potentially contribute to elevated levels of anxiety and depression, like those who reside in rural areas or in camps. It is essential to devise customised approaches that can efficiently offer accessible and suitable mental health assistance within these particular environments.
6. Further investigation is required to examine the fundamental reasons that contribute to the persistence of anxiety symptoms, in contrast to the marginal decline seen in symptoms of depression throughout the period spanning from two to six weeks after childbirth. Gaining a knowledge about these distinctions might provide valuable insights for developing focused therapies aimed at addressing certain mental health disorders that arise in the weeks and months following delivery.

4.3 imitation of the study

There are various limitations in this research that need consideration. Initially, it should be noted that the samples utilised during this study were exclusively gathered from one hospital. Consequently, this limited scope may restrict the applicability of the results to a more extensive demographic of postpartum women. Furthermore, the researchers had difficulties in recruiting participants since some couples refused to take part, thus may lead to the introduction of selection bias. The study also took a long time to complete, which may have influenced the continuity and consistency of data collection. Furthermore, the lack of sufficient related studies in the literature might have limited the depth of analysis and comparison of findings. Future research should aim to address these limitations by including diverse and representative samples, improving participant recruitment strategies, and conducting a comprehensive review of relevant literature to strengthen the study's findings.

4.4 Strength of the study

The majority of research conducted in Palestine has been centred on examining post-partum depression, but there has been comparatively less attention paid to anxiety that may occur during the postpartum period. This study is unique in its exploration of the incidence of postpartum depressiist of Abbreviations

List of Abbreviations

Abbreviation	Meaning
ANOVA	Analysis of variance
APA	American Psychiatric Association
BMI	Body Mass Index
CS	Cesarean section
C-section	Cesarean section delivery
DSM	Diagnostic and Statistical Manual of Mental Disorders
DSM-5	Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition
EPDS	Edinburgh Postnatal Depression Scale
ICD-10	International Classification of Disease
IRB	Institutional Review Board
MGH	Massachusetts General Hospital
MINI	Mini International Neuropsychiatric Interview
N	Number of participants
NIS	New Israeli Shekel
PPA	Postpartum Anxiety
PPD	Postpartum Depression
PSAS	Postpartum Specific Anxiety Scale
SAS	Self-Rating Anxiety Scale
SPSS V25	Statistical Package for the Social Sciences version 25
STAI	State-Trait Anxiety Inventory
WHO	World Health Organization

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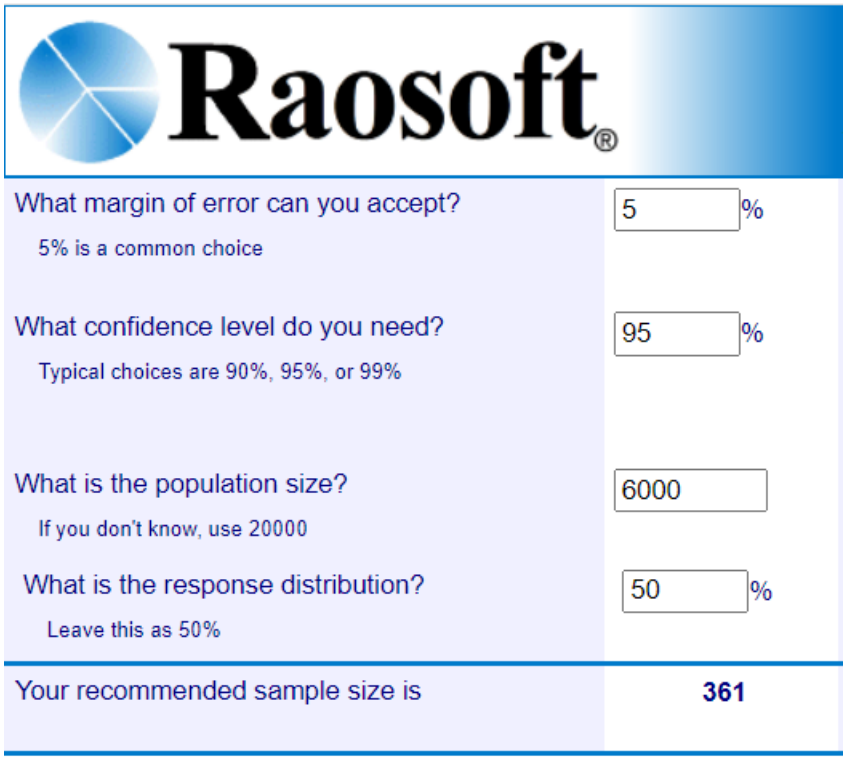
Appendices

Appendix A

Sample size calculator



Source: (Raosoft, 2022).

Appendix B

Study Tools

An-Najah National University
Faculty of Graduate Studies
Master of Community Mental Health

Questionnaire about:

POSTPARTUM DEPRESSION AND ANXIETY AMONG WOMEN UNDERGO CESAREAN SECTION COMPARED WITH VAGINAL DELIVERY IN NABLUS

Prepared by:

Sojoud Abu-Baker

Supervised by:

Dr. Eman Alshawish

The First section

Patient's information

الجزء الأول: البيانات الاجتماعية والديموغرافية:

-1	الاسم: .....
-2	العمر: □ أقل من 18 سنة □ 18 – 22 سنة □ 22 – 27 سنة □ 27– 37 سنة □ 37سنة فما فوق
-3	المستوى التعليمي: □ أقل من التوجيهي □ توجيهي □ بكالوريوس □ دراسات عليا
-4	الحالة الاجتماعية: □ متزوجة □ مطلقة □ أرملة
-5	مكان الإقامة: □ مدينة □ قرية □ مخيم
-6	نوع الأسرة: □ ممتدة □ مشتركة □ نووية
-7	عدد أفراد الأسرة: (.....)
-8	دخل الأسرة: □ أقل من 1880 شيكل □ من 1880 إلى 3000 شيكل □ أكثر من 3000 شيكل
-9	العمل: □ ربة منزل □ أعمل

الجزء الثاني: المعلومات الصحية والمرضية:

-10	هل أنتِ مدخنة؟ □ نعم □ لا
-11	هل لديكِ أيُّ نوعٍ من الحساسية؟ □ نعم □ لا إذا كانت الإجابة (نعم)، فما هو سبب الحساسية: .....
-12	هل خضعتِ لعملياتٍ جراحية من قبل؟ □ نعم □ لا إذا كانت الإجابة (نعم)، اذكري العمليات التي خضعتِ لها: .....
-13	هل تعانينَ من أمراضٍ معينة؟ □ نعم □ لا إذا كانت إجابتُك (نعم)، اذكري المرض الذي تعانينَ منه: .....
-15	هل لدى عائلتِك تاريخٌ سابقٌ في الاضطراباتِ النفسيةِ أو العقلية: □ نعم □ لا إذا كانت إجابتك (نعم)، حددي: .....

الجزء الثالث: الأسئلة المتعلقة بالحمل والولادة:

-16	عدد مرات الحمل: .....
-17	عدد مرات الولادة: .....
-18	كم عدد مرات الإجهاض إن وجد: .....
-19	عدد أسابيع الحمل: .....
-20	عدد الأجنة: .....
-21	عدد الذكور: .....
-22	عدد الإناث: .....
-23	طريقة الولادة: □ قيصرية □ طبيعية
-24	إذا كانت الولادة قيصرية، هل تمّ التخطيط لها مسبقًا؟ □ نعم □ لا

-25	إذا كانت ولادتك قيصرية، هل كان البنج أثناء العملية: □ كلي □ نصفي
-26	هل عانيتِ من أي مشكلاتٍ صحيةٍ بعدَ الولادة؟ □ نعم □ لا إذا كانت الإجابة نعم، اذكري نوع المشاكل الصحية التي تعاني منها: ....
-27	بعد الولادة، هل كانت رضاعة طفلك طبيعية أم صناعية؟

<u>الجزء الرابع: الأسئلة المتعلقة بالصحة النفسية ومصادر الدعم بعد الولادة:</u>

-28	هل تشعرين بضغوطاتٍ نفسيةٍ بعد الولادة: □ نعم □ لا
-29	إذا كانت الإجابة (نعم)، فما هي أسباب الضغوطات: ....
-30	هل تتلقينَ الدعمَ والمساندة من العائلة في رعايةِ المولود الجديد: □ نعم □ لا

The Second section

Edinburgh Postnatal Depression Scale (EPDS)

The Edinburgh Postnatal Depression Scale
Cox JL, Holden JM Sagovsky R (1987) Detection of postnataldepression: development of the 10-item Edinburgh postnataldepression scale. Brit J Psychiatry150 782-86. Reproduced withpermission

*

NSW Health	FAMILY NAME	MRN
	GIVEN NAME	MALE FEMALE
Facility:	D.O.B: / /	M.O.
	ADDRESS:	
The Edinburgh Postnatal Depression Scale		
Cox JL, Holden JM Sagovsky R (1987) Detection of postnatal depression: development of the 10-item Edinburgh postnatal depression scale. Brit J Psychiatry150 782-86. Reproduced with permission	LOCATION:	
	COMPLETE ALL DETAILS OR AFFIX PATIENT LABEL HERE	

بما أنك أنجبت طفلاً مؤخرًا، نود أن نعرف شعورك الآن. يرجى وضع علامة في خانة الإجابة التي تعبر بشكل أفضل عما شعرت به في الأيام السبعة الماضية، وليس فقط عما تشعرين به اليوم. إليك هذا المثال للتوضيح.

شعرت بأنني سعيدة

- ☐ نعم، في جميع الأوقات
- ☑ نعم، في معظم الأوقات
- ☐ كلا، ليس كثيراً
- ☐ كلا، أبداً

وهذا يعني: "شعرت بأنني سعيدة معظم الوقت خلال الأسبوع الماضي". نرجو منك أن تكملي الأسئلة الأخرى بالطريقة ذاتها.

1. استطعت الشعور بالفرح والسعادة:

- ☐ بالمقدار نفسه الذي استطعته من قبل
- ☐ ليس تماماً بالمقدار نفسه الآن
- ☐ ليس بالمقدار نفسه الآن
- ☐ كلا مطلقاً

2. تطلعت إلى الأمور بتشوّق:

- ☐ بالمقدار نفسه مثل أي وقت مضى
- ☐ أقل نوعاً ما مما اعتدته
- ☐ أقل بكثير مما اعتدته
- ☐ نادراً

3. لمت نفسي بدون لزوم عندما سارت الأمور على غير ما يرام:

- ☐ نعم، في معظم الأحيان
- ☐ نعم، في بعض الأحيان
- ☐ ليس في أحوال كثيرة
- ☐ كلا، أبداً

6. تراكمت الأعمال عليّ فلم أستطع القيام بها كلها:

- ☐ نعم، في معظم الأحيان لم أستطع القيام بها أبداً
- ☐ نعم، في بعض الأحيان لم أستطع القيام بها كالمعتاد
- ☐ كلا، لقد استطعت القيام بها في بعض الأحيان
- ☐ كلا، لقد استطعت القيام بها كالمعتاد

7. كنت تعيسة لدرجة أنني واجهت صعوبة في النوم:

- ☐ نعم، في معظم الأحيان
- ☐ نعم، في بعض الأحيان
- ☐ كلا، ليس كثيراً
- ☐ كلا، أبداً

8. شعرت بأنني تعيسة وبائسة:

- ☐ نعم، في معظم الأحيان
- ☐ نعم، في أحيان كثيرة
- ☐ ليس كثيراً
- ☐ كلا، مطلقاً

4. **كنت قلقة ومشغولة البال بدون سبب وجيه:**

- ☐ كلا، أبداً
- ☐ نادراً
- ☐ نعم، في بعض الأحيان
- ☐ نعم، في كثير من الأحيان

5. **شعرت بالخوف والذعر بدون سبب وجيه:**

- ☐ نعم، كثيراً في كثير من الأحيان
- ☐ نعم، في بعض الأحيان
- ☐ كلا، ليس كثيراً
- ☐ كلا، مطلقاً

9. **شعرت بالتعاسة لدرجة البكاء:**

- ☐ نعم، في معظم الأحيان
- ☐ نعم، في كثير من الأحيان
- ☐ من وقت لآخر فقط
- ☐ كلا، مطلقاً

10. **خطرت لي فكرة إلحاق الأذى بنفسي:**

- ☐ نعم، في أحيان كثيرة
- ☐ أحياناً
- ☐ نادراً
- ☐ كلا، مطلقاً

Date Completed: _____ **Total Score:**_____/ 30 **Total Score for Question 10:** ___/ 3

The Edinburgh Postnatal Depression Scale

Today's Date: __/__/____ Weeks pregnant: _____ or week postnatal: _____

Surname: _____ Given Name:_____ Total Score: _____

INSTRUCTIONS:

Please select one option for each question that is the closest to how you have felt in the PAST SEVEN DAYS.

1. I have been able to laugh and see the funny side of things:

( )As much as I always could
( )Not quite as much now
( )Definitely not so much now
( )Not at all

2. I have looked forward with enjoyment to things:

( ) As much as I ever did
( ) Rather less than I used to
( ) Definitely less than I used to
( ) Hardly at all

3. I have blamed myself unnecessarily when things went wrong:

( ) Yes, most of the time
( ) Yes, some of the time
( ) Not very often
( ) N

4. I have been anxious or worried for no good reason:

( ) No, not at all
( ) Hardly ever
( ) Yes, sometimes
( ) Yes, very often

5. I have felt scared or panicky for no very good reason:

( ) Yes, quite a lot
( ) Yes, sometimes
( ) No, not much
( ) No, not at all

6. Things have been getting on top of me:

( ) Yes, most of the time I haven't been able to cope at all
( ) Yes, sometimes I haven't been coping as well as usual
( ) No, most of the time I have coped quite well
( ) No, I have been coping as well as ever

7. I have been so unhappy that I have had difficulty sleeping:

( ) Yes, most of the time
( ) Yes, sometimes
( ) Not very often
( ) No, not at all

8. I have felt sad or miserable:

( ) Yes, most of the time
( ) Yes, quite often
( ) Not very often
( ) No, not at all

9. I have been so unhappy that I have been crying:

( ) Yes, most of the time
( ) Yes, quite often
( ) Only occasionally
( ) No, never

10. The thought of harming myself has occurre

( ) Yes, quite often
( ) Sometimes
( ) Hardly ever
( ) Never

INSTRUCTIONS:

Add the number next to each circle that has been filled in. This is the total score. See below for the range of scores on the EPDS.

TOTAL SCORE: ☐

Scoring

QUESTIONS 1, 2, & 4 (without an *)
Are scored 0, 1, 2 or 3 with top box scored as 0 and the bottom box scored as 3.

QUESTIONS 3, 5¬10 (marked with an *)
Are reverse scored, with the top box scored as a 3 and the bottom box scored as 0.

Range of EPDS Scores

Scores

0-9 : Scores in this range may indicate the presence of some symptoms of distress that may be short-lived and are less likely to interfere with day to day ability to function at home or at work. However if these symptoms have persisted more than a week or two further enquiry is warranted.

10-12 : Scores within this range indicate presence of symptoms of distress that may be discomforting. Repeat the EDS in 2 weeks time and continue monitoring progress regularly. If the scores increase to above 12 assess further and consider referral as needed.

13 +: Scores above 12 require further assessment and appropriate management as the likelihood of depression is high. Referral to a psychiatrist/psychologist may be necessary.

Item 10: Any woman who scores 1, 2 or 3 on item 10 requires further evaluation before leaving the office to ensure her own safety and that of her baby.

The Third section

The Postpartum Specific Anxiety Scale (PSAS)

Instructions to participants:

We are interested in how you are feeling since you had your baby. Please choose the answer that comes closest to how you have felt IN THE PAST 14 DAYS, not just how you feel today. As this reflects the past fourteen days, you may want to repeat this scale again to track any changes in your frequency of symptoms after 6 weeks from your delivery. This questionnaire consists of 51 groups of statements. Please read each group of statements carefully. Note: In developing the scale preliminary consultations identified some items as not being applicable to all mothers. These items have been marked with an asterisk (*), for example: [*2.] If these marked items are not applicable to you or your circumstances, please leave the item response blank. Please take your time and read each question carefully, selecting the most appropriate answer for each question from the following options:

1 = Not at all

2 = Not Very Often

3 = Often

4 = Almost Always

Source (Fallon et al., 2016).

PARTICIPANT ID:	**AGE OF BABY IN WEEKS:**	**DATE:**			
Question Number	**The postpartum Specific Anxiety Scale**	**1 = Not at all**	**2 = Not Very Often**	**3 = Often**	**4 = Almost Always**
1.	have had negative thoughts about my relationship with my baby				
2.	I have felt that my baby would be better cared for my someone else				
3.	I have felt unconfident or incapable of meeting my baby's basic care needs				
4.	I have worried about the bond I have with my baby				
5.	I have worried that my baby feels more content in someone else's care				
6.	I have felt that other mothers are coping with their babies better than me				
7.	I have felt that I am not the parent I want to be				
8.	I have worried I will not know what to do when my baby cries				
9.	I have worried about how I will cope with my baby when others are not around to support me				
10.	I have worried about being unable to settle my baby				
11.	I have worried that my baby is picking up on my anxieties				
12.	I have worried that my baby is less content than other babies				
13.	I have worried that other people think my parenting skills are inadequate				

14.	I have felt that motherhood is much harder than expected 0				
15.	I have felt that I should not need help to look after my baby				
16.	I have worried about my baby being accidentally harmed by someone or something else				
17.	I have repeatedly checked on my sleeping baby				
18.	I have worried that my baby will stop breathing while sleeping				
19.	I have felt frightened when my baby is not with me				
20.	I have worried about leaving my baby in a childcare setting				
21.	I have worried about accidentally harming my baby				
22.	I have thought of ways to avoid exposing my baby to germs				
23.	I have not taken part in an everyday activity with my baby because I fear they may come to harm				
24.	I have worried about my baby's health even after reassurance from others				
25.	I have worried that I will become too ill to care for my baby				
26.	I have felt a greater need to do things in a certain way or order than before my baby was born				
27.	I have worried about my baby's milk intake				
28	I have worried about my baby's weight				
29.	I have worried about getting my baby into a routine.				
30.	I have worried about the way that I feed my baby.				
31.	I have worried about the length of time that my baby sleeps.				
32	I have used the internet for reassurance about my				

	baby's health.				
33.	I have worried that my baby is not developing as quickly as other babies				
34.	I have felt resentment towards my partner.				
35.	I have felt tired even after a good amount of rest.				
36.	I have worried more about my relationship with my partner than before my baby was born.				
37.	I have worried that I am not going to get enough sleep				
38.	I have worried that my partner finds me less attractive than before my baby was born				
39.	I worried a lot about my relationship with my family after giving birth.				
40.	I have worried more about my appearance than before my baby was born.				
41.	I have worried more about completing household chores than before my baby was born.				
42.	I have had difficulty sleeping even when I have had the chance to.				
43.	I have worried more about my appearance than before my baby was born.				
44.	I have worried more about my relationship with my friends than before my baby was born				
45.	I have been less able to concentrate on simple tasks than before my baby was born.				
46.	I have worried about returning to work				
47.	I have worried more about my relationship with my family than before my baby was born.				
48.	I have felt that I have had less control over my day than before my baby was born.				
49.	I have felt isolated from family and friends				

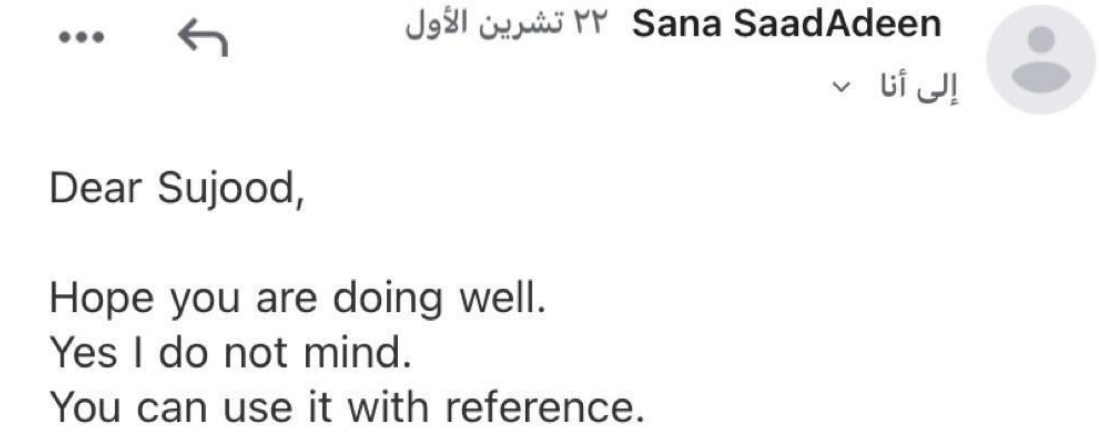
50.	I have worried more about my finances than before my baby was born −0.11				
51.	I have felt that when I do get help it is not beneficial.				
- END -		**SCORE: _____ / 204**			

رقم السؤال	فقرات المقياس	التدريج			
		إطلاقاً	نادراً	غالباً	دائماً
1	يوجد لديَّ أفكار سلبية حول علاقتي مع طفلي				
2	شعرتُ بأن طفليَ سيحصلُ على رعايةٍ أفضل من قبل شخصٍ آخر.				
3	شعرتُ بعدمِ الثقةِ أو عدمِ القدرةِ على تلبيةِ الاحتياجات الأساسيةِ لطفلي.				
4	لقد قلقتُ بشأن الرابطةِ التي تربطُني بطفلي.				
5	لقد قلقتُ من أنَّ طفلي يشعر بمزيد من الرضا في رعايةِ شخصٍ آخر.				
6	شعرتُ بأن الأمهاتِ الأخرياتِ يتعاملنَ مع أطفالهنَّ أفضلَ مني.				
7	لقد شعرتُ بأنني لست الوالدة التي أريدُ أن أكون.				
8	لقد قلقتُ من أنني لن أعرفَ ماذا أفعل عندما يبكي طفلي.				
9	لقد قلقتُ بشأن كيفية التعامل مع طفلي عندما لا يكون الآخرون حولي ليدعموني.				
10	لقد قلقتُ من عدم القدرة على رعاية طفلي مثل الآخرين.				
11	لقد كنتُ قلقة من أن طفلي يزيدُ قلقي.				
12	لقد قلقتُ من أن يكونَ طفليَ أقلَّ رضىً من الأطفال الآخرين.				
13	لقد قلقتُ من اعتقاد الآخرينَ أن مهارتي في تربيةِ الأطفال غير كافية.				
14	لقد شعرتُ بأن الأمومة أصعب بكثير مما كنت أتوقع.				
15	شعرتُ بأنني لستُ بحاجة إلى مساعدة لرعاية طفلي.				
16	لقد قلقتُ من تعرض طفلي للأذى العرضي من قبل شخص ما أو شيء من هذا القبيل.				
17	قمتُ بفحص طفلي النائم مرارًا وتكراراً.				
18	لقد قلقتُ من أن يتوقف طفلي عن التنفس أثناء النوم.				
19	شعرتُ بالخوف عندما لا يكون طفلي معي.				
20	لقد قلقتُ بشأن ترك طفلي في مكان لرعاية الأطفال.				
21	قلقتُ من إيذاء طفلي عن طريق الخطأ.				
22	فكرتُ في طرق عدة لتجنب تعريض طفلي للجراثيم.				
23	لم أشاركْ في أي نشاط يومي مع طفلي لأنني أخشى أن يلحق به الأذى.				
24	لقد كنتُ قلقة على صحةِ طفلي حتى بعد الاطمئنان عليه من قبلالآخرين.				
25	كنتُ قلقة من أن أصبح مريضة لدرجة لا تسمح لي برعاية طفلي.				
26	شعرتُ بالحاجة إلى القيام بالأشياء بطريقة أو ترتيب معين أكثر من قبل الولادة.				
27	لقد قلقتُ بشأن تناول طفلي الحليب.				
28	شعرت بالقلق حول وزن طفلي.				
29	لقد قلقتُ بشأن إدخال طفلي في الروتين.				

30	شعرت بالقلق من الطريقة التي أطعمت بها طفلي.				
31	كنت قلقة بشأن طول الفترة التي ينام فيها طفلي.				
32	لقد استخدمتُ الإنترنت لأطمئن على صحة طفلي.				
33	كنتُ قلقة من أنَّ طفلي لا يتطور بسرعةٍ مثل غيره.				
34	لقد شعرتُ بالاستياء تجاه شريكي.				
35	كنت أشعرُ بالتعب حتى بعد أخذي قسطًا جيدًا من الراحة.				
36	لقد قلقتُ بشأن علاقتي مع شريكي أكثر مما كان قبل الولادة.				
37	لقد قلقتُ من أنني لن أحصل على قسط كافٍ من النوم بعد ولادة طفلي.				
38	لقد قلقتُ من أن يجدني شريكي أقل جاذبية مما كنت عليه قبلولادة الطفل.				
39	لقد قلقتُ كثيرا بشأن علاقتي مع عائلتي بعد الولادة.				
40	قد قلقتُ بشأن مظهري أكثر بعد ولادة طفلي.				
41	لقد قلقتُ كثيرا بعد الولادة بشأن إكمال الأعمال المنزلية.				
42	أجدُ صعوبة في النوم حتى عندما أتيحت لي الفرصة.				
43	لقد شعرتُ أنني لا أحصل على الدعم الكافي.				
44	بعد الولادة شعرت بقلق كبير بشأن علاقاتي مع صديقاتي.				
45	أشعر بأنني أقل قدرة على التركيز في المهام بعد الولادة.				
46	لقد قلقتُ من العودة إلى العمل.				
47	شعرتُ بعدم القدرة على التوفيق بين الأمومة والمسؤوليات الأخرى.				
48	لقد شعرتُ بأنني أقل سيطرة على يومي مما كنت عليه قبل الولادة.				
49	لقد شعرتُ بالعزلة عن العائلة والأصدقاء.				
50	قلقتُ بشأن أموالي أكثر مما كنت عليه قبل ولادة طفلي.				
51	شعرتُ بأنَّ الحصولَ على مساعدةٍ لن يكونَ مفيدًا.				

Appendix C

Permission for using the Arabic version of PSAS

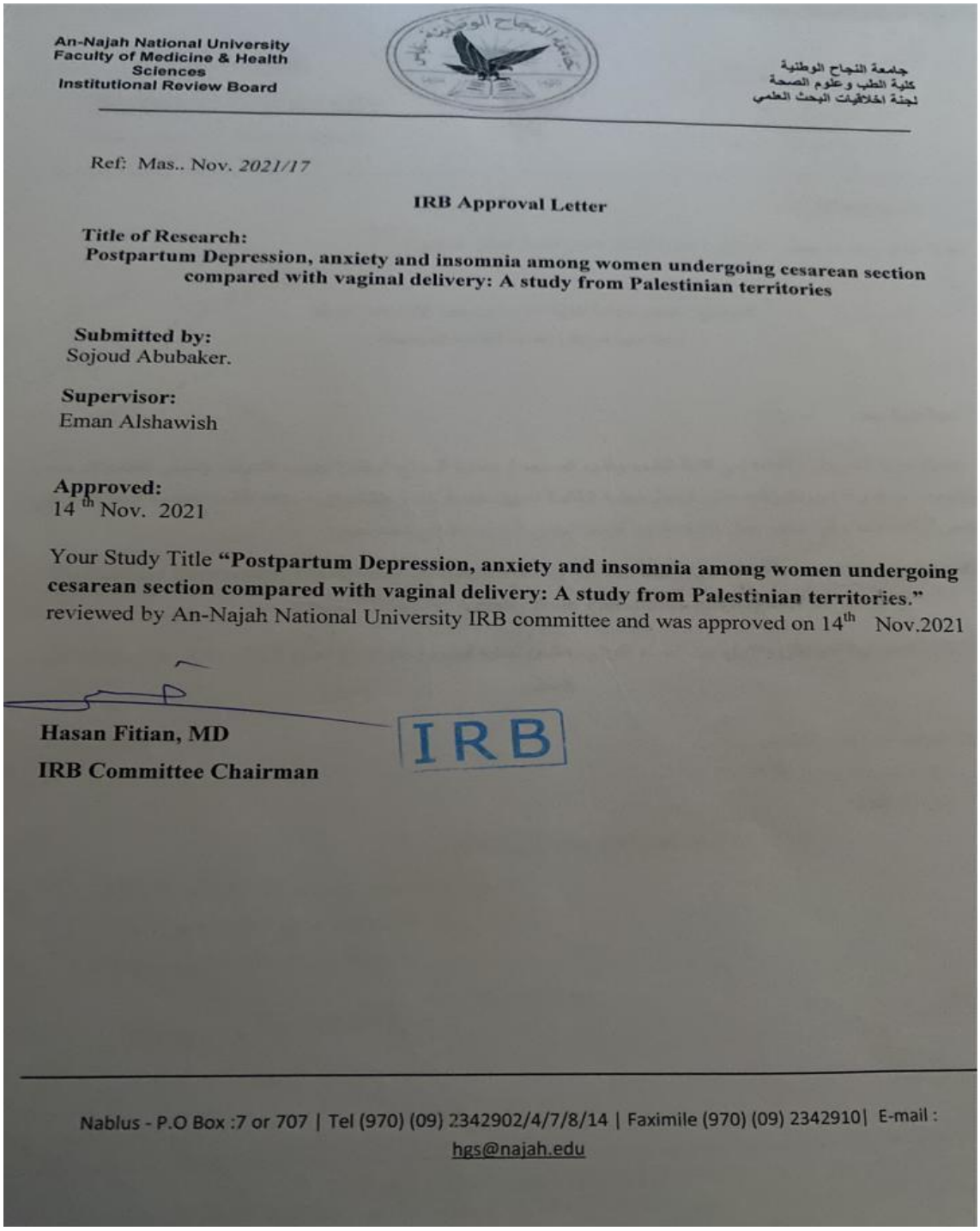


Dear Sujood,

Hope you are doing well.
Yes I do not mind.
You can use it with reference.

Appendix D

IRB Approval Letter



An-Najah National University
Faculty of Medicine & Health Sciences
Institutional Review Board

جامعة النجاح الوطنية
كلية الطب وعلوم الصحة
لجنة اخلاقيات البحث العلمي

Ref: Mas.. Nov. 2021/17

IRB Approval Letter

Title of Research:
Postpartum Depression, anxiety and insomnia among women undergoing cesarean section compared with vaginal delivery: A study from Palestinian territories

Submitted by:
Sojoud Abubaker.

Supervisor:
Eman Alshawish

Approved:
14 th Nov. 2021

Your Study Title **"Postpartum Depression, anxiety and insomnia among women undergoing cesarean section compared with vaginal delivery: A study from Palestinian territories."** reviewed by An-Najah National University IRB committee and was approved on 14th Nov.2021

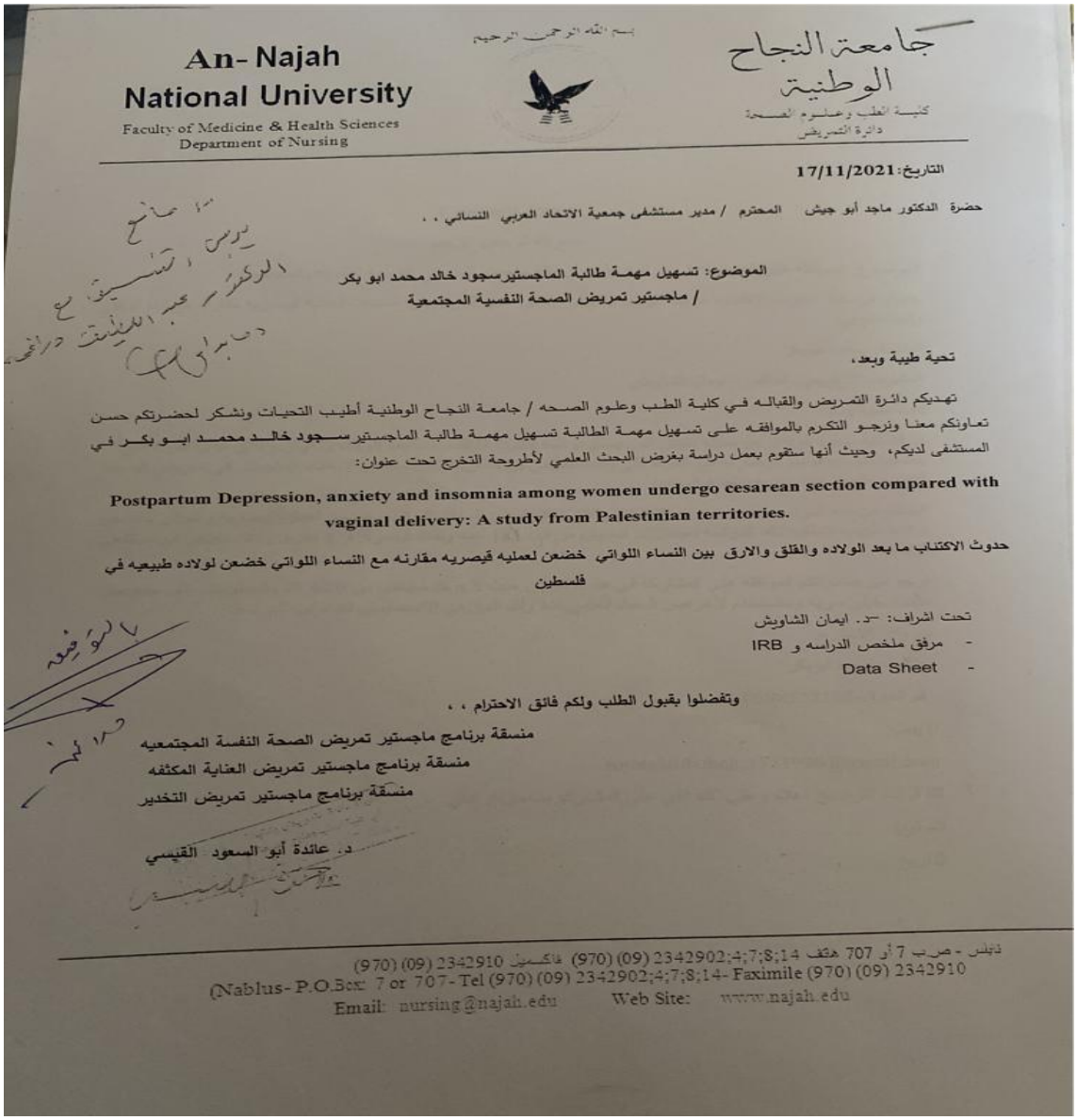
Hasan Fitian, MD
IRB Committee Chairman

IRB

Nablus - P.O Box :7 or 707 | Tel (970) (09) 2342902/4/7/8/14 | Faximile (970) (09) 2342910| E-mail : hgs@najah.edu

Appendix E

Approval letter from Al Ittihad hospital



An- Najah
National University
Faculty of Medicine & Health Sciences
Department of Nursing

بسم الله الرحمن الرحيم

جامعة النجاح الوطنية
كلية الطب وعلوم الصحة
دائرة التمريض

التاريخ: 17/11/2021

حضرة الدكتور ماجد أبو جيش المحترم / مدير مستشفى جمعية الاتحاد العربي النسائي ،،

الموضوع: تسهيل مهمة طالبة الماجستير سجود خالد محمد ابو بكر
/ ماجستير تمريض الصحة النفسية المجتمعية

تحية طيبة وبعد،

تهديكم دائرة التمريض والقيالة في كلية الطب وعلوم الصحه / جامعة النجاح الوطنية أطيب التحيات وتشكر لحضرتكم حسن تعاونكم معنا وترجو التكرم بالموافقه على تسهيل مهمة الطالبة تسهيل مهمة طالبة الماجستير سجود خالد محمد ابو بكر في المستشفى لديكم، وحيث أنها ستقوم بعمل دراسة بغرض البحث العلمي لأطروحة التخرج تحت عنوان:

Postpartum Depression, anxiety and insomnia among women undergo cesarean section compared with vaginal delivery: A study from Palestinian territories.

حدوث الاكتئاب ما بعد الولاده والقلق والارق بين النساء اللواتي خضعن لعمليه قيصريه مقارنه مع النساء اللواتي خضعن لولاده طبيعيه في فلسطين

تحت اشراف: د. ايمان الشاويش
- مرفق ملخص الدراسه و IRB
- Data Sheet

وتفضلوا بقبول الطلب ولكم فائق الاحترام ،،

منسقة برنامج ماجستير تمريض الصحة النفسة المجتمعيه
منسقة برنامج ماجستير تمريض العناية المكثفه
منسقة برنامج ماجستير تمريض التخدير

د. عائدة أبو السعود القيسي

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Appendix F

Consent form

إقرار موافقة

الموضوع: المشاركة في دراسة علمية لرسالة ماجستير تمريض الصحة النفسية والمجتمعية.

عنوان الرسالة: اكتئاب ما بعدَ الولادةِ والقلقِ بينَ النساءِ اللواتي خضعنَ للولادة بواسطة عمليةٍ قيصريةٍ مقارنةً بالنساءِ اللواتي خضعنَ لولادةٍ طبيعيةٍ في نابلس.

الطالبة: سجود أبوبكر.

المشرف الأكاديمي: الدكتورة إيمان الشاويش.

تحية طيبة وبعد:

أنا الطالبة سجود أبوبكر من مدينة نابلس، أقوم بعمل دراسة بعنوان **"اكتئاب ما بعدَ الولادةِ والقلقِ بينَ النساءِ اللواتي خضعنَ للولادة بواسطة عمليةٍ قيصريةٍ مقارنةً بالنساءِ اللواتي خضعنَ لولادةٍ طبيعيةٍ في نابلس"** في نابلس 2021؛ كمتطلب لاستيفاء درجة الماجستير في تمريض الصحة النفسية والمجتمعية بجامعة النجاح الوطنية.

الهدف من هذه الدراسة مقارنة حدوث الاكتئاب والقلق والأرق بين السيدات اللواتي يخضعن لعملية قيصرية واللواتي يخضعن لولادة طبيعية، وتتطلب هذه الدراسة تعبئة 362 استبيانًا من قبل 181 سيدة ولدت قيصريًا و181 سيدة ولدت بصورة طبيعية في مستشفى الاتحاد.

نرجو من حضرتكن الموافقة والمشاركة في الإجابة على هذه الاستبانة، علماً بأن المعلومات والإجابات ستبقى سرية ولن تستخدم إلا لأغراض البحث العلمي فقط، ولكِ الحق في الانسحاب متى شئتِ من الدراسة.

مع وافر الاحترام

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لقد قرأت التوضيح أعلاه وعلى ذلك أوافق على المشاركة بمحض إرادتي.

التوقيع: .....

Appendix G

Tables

Table G.1

Comparison of anxiety between 2 and 6 weeks post-delivery among the study participants

Variable	Group	Anxiety post-delivery				P-value
		2 weeks		6 weeks		
		N	%	N	%	
1. have had negative thoughts about my relationship with my baby	Not at all	163	45.2%	51	14.1%	0.000*
	Not Very Often	90	24.9%	136	37.7%	
	Often	84	23.3%	144	39.9%	
	Almost Always	24	6.6%	30	8.3%	
2. I have felt that my baby would be better cared for my someone else	Not at all	160	44.3%	113	31.3%	0.000*
	Not Very Often	109	30.2%	129	35.7%	
	Often	67	18.6%	89	24.7%	
	Almost Always	25	6.9%	30	8.3%	
3. I have felt unconfident or incapable of meeting my baby's basic care needs	Not at all	144	39.9%	86	23.8%	.000*
	Not Very Often	111	30.7%	138	38.2%	
	Often	79	21.9%	98	27.1%	
	Almost Always	27	7.5%	39	10.9%	
4. I have worried about the bond I have with my baby	Not at all	157	43.5%	103	28.5%	0.000*
	Not Very Often	112	31.0%	141	39.1%	
	Often	71	19.7%	87	24.1%	
	Almost Always	21	5.8%	30	8.3%	
5. I have worried that my baby feels more content in someone else's care	Not at all	151	41.8%	94	26.0%	0.000*
	Not Very Often	102	28.3%	135	37.4%	

	Often	80	22.2%	96	26.6%	
	Almost Always	28	7.7%	36	10.0%	
6. I have felt that other mothers are coping with their babies better than me	Not at all	141	39.1%	94	26.0%	0.000*
	Not Very Often	122	33.8%	143	39.6%	
	Often	76	21.1%	96	26.6%	
	Almost Always	22	6.0%	28	7.8%	
7. I have felt that I am not the parent I want to be	Not at all	150	41.6%	89	24.7%	0.000*
	Not Very Often	106	29.4%	133	36.8%	
	Often	79	21.9%	107	29.6%	
	Almost Always	26	7.1%	32	8.9%	
8. I have worried I will not know what to do when my baby cries	Not at all	107	29.6%	66	18.3%	0.000*
	Not Very Often	142	39.3%	149	41.3%	
	Often	86	23.8%	115	31.9%	
	Almost Always	26	7.3%	31	8.5%	
9. I have worried about how I will cope with my baby when others are not around to support me	Not at all	121	33.5%	68	18.8%	0.000*
	Not Very Often	138	38.2%	158	43.8%	
	Often	77	21.3%	100	27.7%	
	Almost Always	25	7.0%	35	9.7%	
10. I have worried about being unable to settle my baby	Not at all	137	38.0%	131	36.3%	0.109
	Not Very Often	119	33.0%	119	33.0%	
	Often	79	21.9%	82	22.7%	
	Almost Always	26	7.1%	29	8.0%	
11. I have worried that my baby is picking up on my anxieties	Not at all	108	29.9%	34	9.4%	0.000*
	Not Very Often	139	38.5%	154	42.7%	
	Often	84	23.3%	129	35.7%	

	Almost Always	30	8.3%	44	12.2%	
12. I have worried that my baby is less content than other babies	Not at all	129	35.7%	62	17.2%	0.000*
	Not Very Often	117	32.4%	139	38.5%	
	Often	83	23.0%	119	33.0%	
	Almost Always	32	8.9%	41	11.3%	
13. I have worried that other people think my parenting skills are inadequate	Not at all	123	34.1%	21	5.8%	0.000*
	Not Very Often	127	35.2%	153	42.4%	
	Often	84	23.3%	140	38.8%	
	Almost Always	27	7.4%	47	13.0%	
14. I have felt that motherhood is much harder than expected 0	Not at all	63	17.5%	24	6.6%	0.000*
	Not Very Often	116	32.1%	121	33.5%	
	Often	123	34.1%	148	41.0%	
	Almost Always	59	16.3%	68	18.9%	
15R. I have felt that I should not need help to look after my baby	Not at all	80	22.2%	25	6.9%	0.000*
	Not Very Often	153	42.4%	164	45.4%	
	Often	92	25.5%	124	34.3%	
	Almost Always	36	9.9%	48	13.4%	
16. I have worried about my baby being accidentally harmed by someone or something else	Not at all	71	19.7%	20	5.5%	0.000*
	Not Very Often	138	38.2%	152	42.1%	
	Often	102	28.3%	129	35.7%	
	Almost Always	50	13.8%	60	16.7%	
17. I have repeatedly checked on my sleeping baby	Not at all	30	8.3%	6	1.7%	0.000*
	Not Very Often	108	29.9%	105	29.1%	
	Often	132	36.6%	151	41.8%	
	Almost	91	25.2%	99	27.4%	

	Always					
18. I have worried that my baby will stop breathing while sleeping	Not at all	34	9.4%	4	1.1%	0.000*
	Not Very Often	140	38.8%	120	33.2%	
	Often	108	29.9%	150	41.6%	
	Almost Always	79	21.9%	87	24.1%	
19. I have felt frightened when my baby is not with me	Not at all	31	8.6%	3	0.8%	0.000*
	Not Very Often	110	30.5%	87	24.1%	
	Often	134	37.1%	164	45.4%	
	Almost Always	86	23.8%	107	29.7%	
20. I have worried about leaving my baby in a childcare setting	Not at all	71	19.7%	2	0.6%	0.000*
	Not Very Often	87	24.1%	93	25.8%	
	Often	113	31.3%	155	42.9%	
	Almost Always	90	24.9%	111	30.7%	
21. I have worried about accidentally harming my baby	Not at all	61	16.9%	20	5.5%	0.000*
	Not Very Often	125	34.6%	131	36.3%	
	Often	106	29.4%	134	37.1%	
	Almost Always	69	19.1%	76	21.1%	
22. I have thought of ways to avoid exposing my baby to germs	Not at all	44	12.2%	0	0.0%	0.000*
	Not Very Often	99	27.4%	84	23.3%	
	Often	119	33.0%	164	45.4%	
	Almost Always	99	27.4%	113	31.3%	
23. I have not taken part in an everyday activity with my baby because I fear they may come to harm	Not at all	101	28.0%	20	5.5%	0.000*
	Not Very Often	121	33.5%	151	41.8%	
	Often	101	28.0%	138	38.2%	
	Almost Always	38	10.5%	52	14.5%	

24. I have worried about my baby's health even after reassurance from others	Not at all	64	17.7%	54	15.0%	0.012
	Not Very Often	144	39.9%	146	40.4%	
	Often	105	29.1%	110	30.5%	
	Almost Always	48	13.3%	51	14.1%	
25. I have worried that I will become too ill to care for my baby	Not at all	67	18.6%	61	16.9%	0.019
	Not Very Often	120	33.2%	125	34.6%	
	Often	118	32.7%	119	33.0%	
	Almost Always	56	15.5%	56	15.5%	
26. I have felt a greater need to do things in a certain way or order than before my baby was born	Not at all	57	15.8%	20	5.5%	0.000*
	Not Very Often	120	33.2%	130	36.0%	
	Often	146	40.4%	165	45.7%	
	Almost Always	38	10.6%	46	12.8%	
27. I have worried about my baby's milk intake	Not at all	67	18.6%	15	4.2%	0.000*
	Not Very Often	156	43.2%	161	44.6%	
	Often	97	26.9%	136	37.7%	
	Almost Always	41	11.3%	49	13.5%	
28. I have worried about my baby's weight	Not at all	76	21.1%	37	10.2%	0.000*
	Not Very Often	147	40.7%	152	42.1%	
	Often	91	25.2%	117	32.4%	
	Almost Always	47	13.0%	55	15.3%	
29. I have worried about getting my baby into a routine.	Not at all	69	19.1%	33	9.1%	0.000*
	Not Very Often	149	41.3%	159	44.0%	
	Often	108	29.9%	125	34.6%	
	Almost Always	35	9.7%	44	12.3%	
30. I have worried about the	Not at	66	18.3%	36	10.0%	0.000*

way that I feed my baby.	all					
	Not Very Often	128	35.5%	128	35.5%	
	Often	122	33.8%	139	38.5%	
	Almost Always	45	12.4%	58	16.0%	
31. I have worried about the length of time that my baby sleeps.	Not at all	64	17.7%	29	8.0%	0.000*
	Not Very Often	148	41.0%	151	41.8%	
	Often	118	32.7%	139	38.5%	
	Almost Always	31	8.6%	42	11.7%	
32. I have used the internet for reassurance about my baby's health.	Not at all	61	16.9%	15	4.2%	0.000*
	Not Very Often	112	31.0%	118	32.7%	
	Often	121	33.5%	152	42.1%	
	Almost Always	67	18.6%	76	21.1%	
33. I have worried that my baby is not developing as quickly as other babies	Not at all	91	25.2%	39	10.8%	0.000*
	Not Very Often	140	38.8%	141	39.1%	
	Often	90	24.9%	123	34.1%	
	Almost Always	40	11.1%	58	16.0%	
34. I have felt resentment towards my partner.	Not at all	111	30.7%	37	10.2%	0.000*
	Not Very Often	119	33.0%	134	37.1%	
	Often	96	26.6%	134	37.1%	
	Almost Always	35	9.7%	56	15.6%	
35. I have felt tired even after a good amount of rest.	Not at all	57	15.8%	39	10.8%	0.000*
	Not Very Often	138	38.2%	129	35.7%	
	Often	117	32.4%	136	37.7%	
	Almost Always	49	13.6%	57	15.8%	
36. I have worried more about my relationship with	Not at all	102	28.3%	102	28.3%	0.317

my partner than before my baby was born.	Not Very Often	127	35.2%	126	34.9%	
	Often	97	26.9%	98	27.1%	
	Almost Always	35	9.6%	35	9.7%	
37. I have worried that I am not going to get enough sleep	Not at all	44	12.2%	44	12.2%	0.000*
	Not Very Often	138	38.2%	138	38.2%	
	Often	119	33.0%	119	33.0%	
	Almost Always	60	16.6%	60	16.6%	
38. I have worried that my partner finds me less attractive than before my baby was born	Not at all	91	25.2%	91	25.2%	0.317
	Not Very Often	132	36.6%	131	36.3%	
	Often	94	26.0%	94	26.0%	
	Almost Always	44	12.2%	45	12.5%	0.317
39. I have worried more about my appearance than before my baby was born.	Not at all	116	32.1%	116	32.1%	
	Not Very Often	122	33.8%	123	34.1%	
	Often	88	24.4%	88	24.4%	
	Almost Always	35	9.7%	34	9.4%	
40. I have worried more about completing household chores than before my baby was born.	Not at all	69	19.1%	69	19.1%	0.317
	Not Very Often	137	38.0%	136	37.7%	
	Often	110	30.5%	111	30.7%	
	Almost Always	45	12.4%	45	12.5%	
41. I have had difficulty sleeping even when I have had the chance to.	Not at all	50	13.9%	50	13.9%	0.000*
	Not Very Often	134	37.1%	134	37.1%	
	Often	131	36.3%	131	36.3%	
	Almost Always	46	12.7%	46	12.7%	
42. I have worried more about my appearance than before my baby was born.	Not at all	71	19.7%	71	19.7%	0.317
	Not	136	37.7%	135	37.4%	

	Very Often					
	Often	101	28.0%	102	28.3%	
	Almost Always	53	14.6%	53	14.6%	
43. I have worried more about my relationship with my friends than before my baby was born	Not at all	86	23.8%	86	23.8%	0.317
	Not Very Often	126	34.9%	125	34.6%	
	Often	113	31.3%	113	31.3%	
	Almost Always	36	10.0%	37	10.3%	
44. I have been less able to concentrate on simple tasks than before my baby was born.	Not at all	75	20.8%	75	20.8%	0.317
	Not Very Often	144	39.9%	143	39.6%	
	Often	101	28.0%	102	28.3%	
	Almost Always	41	11.3%	41	11.3%	
45. I have worried about returning to work	Not at all	108	29.9%	108	29.9%	0.083
	Not Very Often	107	29.6%	104	28.8%	
	Often	94	26.0%	97	26.9%	
	Almost Always	52	14.5%	52	14.4%	
46. I have worried more about my relationship with my family than before my baby was born.	Not at all	87	24.1%	69	19.1%	
	Not Very Often	130	36.0%	134	37.1%	0.001
	Often	106	29.4%	114	31.6%	
	Almost Always	38	10.5%	44	12.2%	
47. I have felt that I have had less control over my day than before my baby was born.	Not at all	71	19.7%	68	18.8%	0.156
	Not Very Often	128	35.5%	126	34.9%	
	Often	122	33.8%	125	34.6%	
	Almost Always	40	11.0%	42	11.7%	
48. I have felt isolated from family and friends	Not at all	89	24.7%	53	14.7%	0.000*
	Not Very	124	34.3%	128	35.5%	

	Often Often	119	33.0%	138	38.2%	
	Almost Always	29	8.0%	42	11.6%	
49. I have worried more about my finances than before my baby was born	Not at all	100	27.7%	29	8.0%	0.000*
	Not Very Often	135	37.4%	150	41.6%	
	Often	81	22.4%	123	34.1%	
	Almost Always	45	12.5%	59	16.3%	
50. I have felt that when I do get help it is not beneficial.	Not at all	116	32.1%	66	18.3%	0.000*
	Not Very Often	118	32.7%	138	38.2%	
	Often	94	26.0%	111	30.7%	
	Almost Always	33	9.2%	46	12.8%	

socio-demographic variables.

Table G.2

Comparisons of depression and anxiety Scale at 2 and 6 weeks post-delivery among socio-demographic variables

Variable	Group	N	Depression Mean±SD		t	P-value	Anxiety Mean±SD		t	P-value
			2 weeks	6 weeks			2 weeks	6 weeks		
Age	Less than 18 years	2	14.00±4.24	15.50±2.12	1.000	0.500	2.57±0.1	2.69±0.13	6.000	0.105
	18-22 years	55	12.93±6.18	13.84±5.85	4.336	0.000*	2.38±0.52	2.58±0.44	7.819	0.000*
	23-27 years	130	12.92±5.87	13.84±5.52	8.258	0.000*	2.28±0.49	2.47±0.41	16.291	0.000*
	28-37 years	140	13.29±5.21	14.06±4.85	7.042	0.000*	2.23±0.49	2.45±0.39	16.543	0.000*
	38 years or more	34	13.68±5.80	14.26±5.54	2.837	0.008*	2.28±0.47	2.48±0.4	8.867	0.000*
	F		0.181	0.105			1.159	1.231		
	P-value		0.948	0.981			0.329	0.297		
Level of education	Less than tawjehi	75	14.43±5.46	15.09±5.10	4.902	0.000*	2.40±0.58	2.59±0.48	10.977	0.000*
	Tawjehi	95	12.16±5.49	13.12±5.25	5.945	0.000*	2.16±0.45	2.04±0.36	12.609	0.000*
	Bachelor	170	13.18±5.85	14.01±5.50	8.757	0.000*	2.30±0.47	2.49±0.39	18.512	0.000*
	Postgraduate	21	12.76±4.46	13.52±3.78	3.200	0.004	2.17±0.45	2.37±0.37	7.159	0.000*
	F		2.326	2.023			3.768	4.014		
	P-value		0.074	0.110			0.011*	0.008*		
Marital status	Married	357	13.18±5.62	14.01±5.28	11.904		2.28±0.49	2.48±0.41	25.197	

						0.000*				0.000*
	Divorced or Widow	4	9.50±6.66	10.25±5.25	1.000	0.391	2.08±0.38	2.37±0.29	6.232	0.008*
	t		1.302	1.417			0.794	0.575		
	P-value		0.194	0.157			0.428	0.566		
Place of residence	City	129	12.33±5.35	13.31±4.99	7.488	0.000*	2.24±0.47	2.46±0.37	14.529	0.000*
	Village	189	13.61±5.69	14.36±5.44	8.761	0.000*	2.31±0.52	2.51±0.44	18.615	0.000*
	Camp	43	13.53±6.06	14.26±5.44	3.499	0.001*	2.21±0.42	2.4±0.34	10.810	0.000*
	F		2.094	1.584			1.362	1.567		
	P-value		0.125	0.206			0.257	0.210		
	Extended	47	11.70±6.12	12.66±6.06	3.612	0.001*	2.22±0.55	2.48±0.46	9.040	0.000*
	Joint family	61	13.20±5.83	13.92±5.35	4.645	0.000*	2.17±0.51	2.41±0.42	11.448	0.000*
Family type	Nuclear family	253	13.40±5.47	14.23±5.11	10.728	0.000*	2.31±0.47	2.50±0.39	21.451	0.000*
	F		1.810	1.756			2.135	1.232		
	P-value		0.165	0.174			0.120	0.293		
	3 or less	138	13.73±5.87	14.67±5.52	7.440	0.000*	2.42±0.49	2.60±0.40	13.573	0.000*
	4-6	178	12.60±5.34	13.45±4.97	9.187	0.000*	2.19±0.45	2.40±0.37	20.488	0.000*
Number of family members	More than 6	45	13.51±5.93	13.91±5.68	2.721	0.009*	2.18±0.57	2.42±0.45	9.065	0.000*
	F		1.697	2.073			9.786	10.908		
	P-value		0.185	0.127			0.000*	0.000*		

Family income	Less than 1880 NIS	12	22.08±8.14	22.83±7.73	1.129	0.283	2.83±1.00	3.04±0.80	2.756	0.044*
	1880-3000	125	13.76±5.70	14.51±5.27	6.210	0.000*	2.28±0.54	2.48±0.46	15.340	0.000*
	More than 3000 NIS	224	12.32±4.97	13.20±4.67	10.661	0.000*	2.24±0.40	2.45±0.31	21.769	0.000*
	F		20.189	22.239			8.384	12.583		
	P-value		0.000*	0.000*			0.000*	0.000*		
Work	Housewife	250	13.11±5.65	13.91±5.37	9.388	0.000*	2.26±0.51	2.48±0.41	20.364	0.000*
	Worker	111	13.22±5.63	14.11±5.14	7.543	0.000*	2.30±0.45	2.49±0.38	16.617	0.000*
	t		-0.162	-0.325			-0.722	-0.345		
	P-value		0.871	0.746			0.471	0.730		
Smoking	Yes	72	13.15±5.21	14.17±4.52	5.576	0.000*	2.24±0.47	2.45±0.38	11.617	0.000*
	No	289	13.14±5.74	13.92±5.47	10.620	0.000*	2.28±0.50	2.49±0.41	22.681	0.000*
	t		0.015	0.348			-0.579	-0.679		
	P-value		0.988	0.728			0.563	0.497		

Table G.3

Comparisons of depression and anxiety Scale at 2 and 6 weeks post-delivery among the obstetric information

Variable	Group	N	Depression Mean±SD		t	P-value	Anxiety Mean±SD		t	P-value
			2 weeks	6 weeks			2 weeks	6 weeks		
Allergy	Yes	33	19.88±7.23	20.36±6.78	2.268	0.030*	2.74±0.8	2.87±0.7	5.059	0.000*
	No	328	12.47±4.98	13.33±4.67	11.827	0.000*	2.23±0.43	2.44±0.34	25.459	0.000*
	t		7.777	7.873			5.975	6.016		
	P-value		0.000*	0.000*			0.000*	0.000*		
Surgical history	Yes	152	13.24±6.12	14.19±5.86	8.054	0.000*	2.29±0.54	2.51±0.45	16.560	0.000*
	No	209	13.07±5.27	13.81±4.84	8.897	0.000*	2.26±0.45	2.46±0.37	19.486	0.000*
	t		0.285	0.669			0.619	1.245		
	P-value		0.775	0.504			0.536	0.214		
Medical disease history	Yes	38	14.37±6.78	14.61±6.55	2.476	0.018*	2.32±0.66	2.50±0.56	8.430	0.000*
	No	323	13.00±5.48	13.90±5.13	11.864	0.000*	2.27±0.47	2.48±0.38	24.160	0.000*
	t		1.418	0.779			0.635	0.294		
	P-value		0.157	0.436			0.526	0.769		
Family psychological history	Yes	25	13.36±5.49	13.96±5.08	2.683	0.013*	2.32±0.42	2.49±0.35	7.429	0.000*
	No	336	13.13±5.65	13.97±5.31	11.655	0.000*	2.27±0.50	2.48±0.41	24.530	0.000*
	t		0.198	-0.012			0.427	0.135		
	P-value		0.843	0.990			0.670	0.893		
Gravity	1	62	13.19±5.75	14.06±5.35	4.911	0.000*	2.39±0.52	2.57±0.42	9.580	0.000*
	2-3	148	13.18±6.01	14.03±5.55	7.747	0.000*	2.30±0.49	2.50±0.42	15.665	0.000*
	More than 3	151	13.09±5.23	13.88±5.04	7.637	0.000*	2.20±0.47	2.43±0.38	17.907	0.000*
	F		0.011*	0.040*			3.305	2.756		
	P-value		0.989	0.961			0.038*	0.065		
Parity	1 or less	133	13.76±5.81	14.65±5.44	7.631	0.000*	2.43±0.48	2.61±0.40	14.741	0.000*
	2-3	99	12.53±5.91	13.32±5.43	5.892	0.000*	2.18±0.47	2.39±0.40	13.411	0.000*
	More than 3	129	12.98±5.19	13.78±4.98	7.056	0.000*	2.19±0.49	2.42±0.39	16.312	0.000*
	F		1.446	1.925			10.845	10.785		
	P-value		0.237	0.147			0.000*	0.000*		
Abortion	No	236	13.31±5.48	14.06±5.13	8.987	0.000*	2.28±0.47	2.48±0.39	19.820	0.000*
	1-2	114	12.78±6.08	13.79±5.77	7.667	0.000*	2.28±0.55	2.49±0.45	14.937	0.000*
	More than 2	11	13.36±4.11	14.00±3.46	2.283	0.046*	2.16±0.30	2.38±0.25	7.842	0.000*

	F		0.346	0.100			0.306	0.368		
	P-value		0.708	0.905			0.737	0.693		
Gestational age	Less than 16 weeks	28	13.11±7.52	14.00±6.78	3.593	0.001*	2.27±0.74	2.54±0.61	7.446	0.000*
	16-26 weeks	16	12.94±6.72	13.69±6.30	2.236	0.041*	2.17±0.66	2.43±0.56	6.772	0.000*
	More than 26 weeks	317	13.16±5.40	13.98±5.11	11.160	0.000*	2.28±0.46	2.48±0.37	23.688	0.000*
	F		0.012	0.024			0.359	0.393		
	P-value		0.988	0.976			0.698	0.675		
Number of foetuses	1 or less	320	13.43±5.64	14.26±5.31	11.212	0.000*	2.29±0.50	2.50±0.41	23.623	0.000*
	2 or more	41	10.95±5.16	11.71±4.62	4.184	0.000*	2.13±0.41	2.36±0.36	9.746	0.000*
	t		2.670	2.943			1.945	1.963		
	P-value		0.008*	0.003*			0.053	0.050		
Number of male babies	1 or less	231	13.62±5.55	14.42±5.12	9.718	0.000*	2.33±0.47	2.52±0.40	21.244	0.000*
	2 or more	130	12.29±5.71	13.17±5.51	7.015	0.000*	2.17±0.51	2.42±0.41	15.504	0.000*
	t		2.166	2.175			2.944	2.203		
	P-value		0.031*	0.030*			0.003*	0.028*		
	1 or less	247	13.30±5.57	14.17±5.30	10.287	0.000*	2.32±0.48	2.52±0.39	20.287	0.000*
	2 or more	114	12.82±5.77	13.54±5.26	6.116	0.000*	2.17±0.52	2.40±0.42	15.684	0.000*
	t		0.752	1.045			2.683	2.514		
	P-value		0.453	0.297			0.008*	0.012		
Type of delivery	Cesarean	183	13.90±6.15	14.70±5.83	8.352	0.000*	2.34±0.55	2.54±0.46	18.561	0.000*
	Normal	178	12.37±4.94	13.22±4.57	8.540	0.000*	2.21±0.42	2.42±0.34	17.696	0.000*
	t		2.592	2.691			2.613	2.655		
	P-value		0.010*	0.007*			0.009*	0.008*		
Planned cesarean delivery	Yes	92	13.15±5.62	14.12±5.33	7.254	0.000*	2.27±0.49	2.48±0.41	16.100	0.000*
	No	91	14.65±6.60	15.30±6.27	4.657	0.000*	2.42±0.59	2.60±0.49	10.949	0.000*
	t		-1.652	-1.369			-1.837	-1.758		
	P-value		0.100	0.173			0.068	0.080		
Type of anesthesia during delivery	Full	104	15.71±5.83	16.40±5.61	5.968	0.000*	2.53±0.50	2.68±0.43	14.923	0.000*
	Partial	79	11.51±5.77	12.47±5.37	5.881	0.000*	2.09±0.51	2.35±0.41	13.889	0.000*
	t		4.854	4.788			5.904	5.284		
	P-value		0.000*	0.000*			0.000*	0.000*		
Health problems after delivery	Yes	27	13.70±7.15	14.33±6.71	2.849	0.008*	2.34±0.61	2.51±0.53	7.128	0.000*
	No	334	13.10±5.50	13.94±5.17	11.613	0.000*	2.27±0.48	2.48±0.39	24.577	0.000*

	t		0.536	0.368			0.676	0.347		
	P-value		0.592	0.713			0.499	0.729		
	Breast feeding	195	11.15±5.08	12.11±4.76	9.283	0.000*	2.12±0.44	2.36±0.35	20.009	0.000*
	Bottle feeding	79	16.10±5.92	16.66±5.62	5.032	0.000*	2.55±0.55	2.69±0.48	12.373	0.000*
Type of feeding	Mixed feeding	87	14.92±4.76	15.70±4.46	5.822	0.000*	2.37±0.43	2.56±0.35	13.058	0.000*
	t		32.106	31.412			26.610	22.497		
	P-value		0.000*	0.000*			0.000*	0.000*		

Table G.4

Comparisons of depression and anxiety Scale at 2 and 6 weeks post-delivery among the psychological stress after childbirth and Family support

Variable	Group	N	Depression Mean±SD		t	P-value	Anxiety Mean±SD		t	P-value
			2 weeks	6 weeks			2 weeks	6 weeks		
Psychological stress after childbirth	Yes	110	16.88±5.16	17.24±4.98	4.809	0.000*	2.56±0.52	2.71±0.45	13.608	0.000*
	No	251	11.51±5.03	12.54±4.77	11.350	0.000*	2.15±0.42	2.38±0.34	22.771	0.000*
	t		9.280	8.492			7.943	7.621		
	P-value		0.000*	0.000*			0.000*	0.000*		
Family support	Yes	264	12.38±5.92	13.26±5.53	10.343	0.000*	2.21±0.51	2.43±0.42	22.620	0.000*
	No	97	15.22±4.11	15.92±3.99	6.067	0.000*	2.46±0.41	2.63±0.33	12.345	0.000*
	t		-4.341	-4.338			-4.366	-4.227		
	P-value		0.000*	0.000*			0.000*	0.000*		

Table G.5

Multivariate logistic regression measure predictors associated of depression and anxiety among delivery women in Nablus

Variable	Group	Depression		Anxiety	
		P-value	OR (95%CI)	P-value	OR (95%CI)
Level of education	Less than tawjehi	0.391	1.58 (0.55-4.53)	0.049*	2.73 (1.01-7.39)
	Tawjehi	0.632	0.78 (0.29-2.12)	0.771	0.86 (0.33-2.3)
	Bachelor	0.901	0.94 (0.36-2.46)	0.187	1.87 (0.74-4.75)
	Postgraduate				Reference
Marital status	Married	0.491	2 (0.28-14.37)	0.346	2.98 (0.31-28.95)
	Divorced or Widow				Reference
Place of residence	City	0.467	0.76 (0.37-1.58)	0.791	1.1 (0.55-2.2)
	Village	0.758	1.12 (0.55-2.27)	0.303	1.42 (0.73-2.76)
	Camp				Reference
Family type	Nuclear family	0.007*	2.39 (1.27-4.49)	0.106	1.69 (0.9-3.17)
	Joint family	0.057	2.14 (0.98-4.68)	0.953	1.02 (0.47-2.22)
	Extended				Reference
Number of family members	3 or less	0.101	1.79 (0.89-3.59)	0.001*	3.29 (1.64-6.63)
	4-6	0.358	1.37 (0.7-2.66)	0.849	1.07 (0.54-2.09)
	More than 6				Reference
Family income	Less than 1880 NIS	0.999	1.5 (0.0-3.50)	0.124	2.84 (0.75-10.78)
	1880-3000NIS	0.697	0.91 (0.58-1.44)	0.189	0.74 (0.48-1.16)
	More than 3000 NIS				Reference
Work	Worker	0.594	1.14 (0.71-1.84)	0.174	1.36 (0.87-2.14)
	Housewife				Reference
Smoking	Yes	0.552	1.18 (0.68-2.07)	0.654	1.13 (0.67-1.89)
	No				Reference
Allergy	Yes	0.011*	4.02 (1.38-11.71)	0.043*	2.18 (1.02-4.64)
	No				Reference
Parity	1 or less	0.485	1.2 (0.72-2.02)	0.000*	2.63 (1.59-4.34)
	2-3	0.610	0.87 (0.5-1.5)	0.338	0.77 (0.45-1.32)
	More than 3				Reference
Number of foetuses	1 or less	0.012*	2.31 (1.2-4.45)	0.007*	2.64 (1.3-5.35)
	2 or more				Reference
Number of male babies	1 or less	0.016*	1.74 (1.11-2.73)	0.003*	1.92 (1.24-2.98)

Number of female babies	2 or more	0.251	1.31 (0.82-2.09)	0.009*	Reference
	1 or less				1.82 (1.16-2.86)
Type of delivery	2 or more	0.064	1.52 (0.98-2.35)	0.268	Reference
	Caesarean				1.26 (0.84-1.91)
Type of anaesthesia during delivery	Normal	0.000*	4.85 (2.43-9.68)	0.000*	Reference
	Full				5.73 (3.02-10.9)
	Partial				Reference
Type of feeding	Breast feeding				Reference
	Bottle feeding	0.000*	4.63 (2.4-8.94)	0.000*	3.41 (1.96-5.91)
	Mixed feeding	0.000*	4.38 (2.35-8.16)	0.000	2.61 (1.55-4.38)
Psychological stress after childbirth	Yes	0.000*	5.1 (2.76-9.41)	0.000*	3.41 (2.11-5.5)
	No				Reference
Family support	Yes				Reference
	No	0.000*	4.98 (2.59-9.56)	0.000*	3.69 (2.22-6.12)

جـامعـــة النجاح الوطنية

كليـــة الدراســـات العليـــا

اكتئاب ما بعدَ الولادةِ والقلقِ بينَ النساءِ اللواتي خضعنَ لعمليةٍ قيصريةٍ مقارنةً بالنساءِ اللواتي خضعنَ لولادةٍ طبيعيةٍ في نابلس

إعداد

سجود أبو بكر

إشراف

د. ايمان الشاويش

قدمت هذه الرسالة استكمالا لمتطلبات الحصول على درجه الماجستير في تمريض الصحة النفسية المجتمعية، من كلية الدراسات العليا، في جامعة النجاح الوطنية، نابلس– فلسطين.

2023

اكتئابُ ما بعدَ الولادةِ والقلقِ والأرقِ بينَ النساءِ اللواتي خضعنَ لعمليةٍ قيصريةٍ مقارنةً بالنساءِ اللواتي خضعنَ لولادةٍ طبيعيةٍ في فلسطين

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الملخص

الخلفية: يعتبر الاكتئاب والقلق والأرق من التغيرات المزاجية المهمة لدى النساء الحوامل، إذ وثّقت التغيرات في الاكتئاب والقلق بمرور الوقت بين النساء اللاتي تم التخطيط لإجراء عملية قيصرية لهن أكثر من حالات الولادة الطبيعية. واستنادًا إلى بيانات منظمة الصحة العالمية، فإن حوالي 10% من النساء الحوامل حول العالم و13%من النساء اللاتي مررن بتجربة ولادة عانين من اضطرابات نفسية، وفي مقدمتها الاكتئاب.

الهدف:تهدف هذه الدراسة للتحقق من مدى حدوث الاكتئاب والقلق لدى النساء اللاتي خضعن لعملية قيصرية مقارنة بالنساء اللاتي ولدن بشكل طبيعي، والتعرف على العوامل المسببة للاكتئاب والأرق والقلق.

المنهجية:تعتمد هذه الدراسة على المنهج المقطعي الكمي، واستخدمت فيها الباحثة مقياس إدنبرة لاكتئاب ما بعد الولادة (EPDS)، ومقياس القلق النوعي بعد الولادة (PSAS) للقلق والأرق، بعد أسبوعين وستة أسابيع بعد الولادة على 361 امرأة خضعن لعملية قيصرية وولادة طبيعية في مستشفى الاتحاد في نابلس، فلسطين.

النتائج:وأظهرت الدراسة أن غالبية المشاركات تتراوح أعمارهن بين 28 و37 عامًا (38.8٪) وأن 47.1٪ كنَّ يحملن درجة البكالوريوس. حوالي 30.5٪ عانين من ضغوط نفسية بعد الولادة. كان دعم الأسرة متاحًا لـ 73.1٪ من المشاركات. كشفت الدراسة عن فروق ذات دلالة إحصائية في درجات القلق والاكتئاب بعد

أسبوعين من الولادة، مرتبطة بعوامل توليدية مختلفة مثل الحساسية، والإجراءات الجراحية، والأمراض الطبية، والتاريخ النفسي للعائلة ($p < 0.05$). بالإضافة إلى ذلك، أظهرت عوامل مثل عدد مرات الحمل وعدد مرات الولادة وعدد مرات الإجهاض وعمر الحمل وعدد الأجنة وعدد الأطفال الذكور والإناث ونوع الولادة والولادة القيصرية المخطط لها ونوع التخدير أثناء الولادة والمشاكل الصحية بعد الولادة ونوع التغذية ارتباطات مماثلة ($p < 0.05$). تؤكد هذه النتائج على أهمية اعتبار هذه العوامل التوليدية عوامل خطر محتملة تؤثر على صحة الأم النفسية خلال فترة ما بعد الولادة.

الاستنتاج:وجدت الباحثة أن النسبة الإجمالية للنساء بعد الولادة اللواتي يعانين من اكتئاب حاد بعد الولادة والقلق كانت عالية بشكل خاص لمجموعة العمليات القيصرية، وبحسب نتائج الدراسة، يجب على القابلات التركيز على تقديم الرعاية الصحية للمرأة بعد ستة أسابيع من الولادة خاصة مجموعة من خضعن للعمليات القيصرية، لأنه من خلال هذه الدراسة، يزداد معدل الإصابة باكتئاب ما بعد الولادة والقلق مع مرور الوقت، خاصة في هذه الفترة ويجب التركيز على خفض العوامل التي أدت إلى زيادة حدوث اكتئاب ما بعد الولادة والقلق.

الكلمات المفتاحية: عملية قيصرية، اكتئاب ما بعد الولادة، قلق، عوامل خطر، نساء، ولادة طبيعية.