An-Najah National University

Faculty of Graduate Studies

PREVALENCE AND ASSOCIATED FACTORS OF POST-PARTUM ANXIETY SYMPTOMS AMONG PALESTINIAN WOMEN

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

2022

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Acknowledgements

I would like to extend my sincere and heartfelt gratitude toward all who have helped me with this endeavor. Without their active guidance, support, and encouragement, I would not have been successful with this project. I would like to dedicate this work to my supportive family my mother, father and sisters. I am grateful to Abdullah, my son, for allowing me to get the opportunity to experience motherhood.

I would also like to dedicate this work to my second family (my colleagues) for their supportive role from the beginning of this journey. I am indebted to Dr. Mohammed Marie and Dr. Jamal Qaddumi my research advisers, for their conscientious guidance and direction throughout this entire process. Furthermore, I would like to thank Dr. Mustafa Sholi and Dr. Ibrahim Aqtam for their assistance in translation process of the scale.

Declaration

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

PREVALENCE AND ASSOCIATED FACTORS OF POST-PARTUM ANXIETY SYMPTOMS AMONG PALESTINIAN WOMEN

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.

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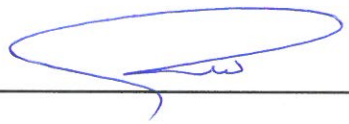
Signature: 

Date: 16/3/2022

Table of Contents

List of Tables

List of Figures

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Abstract

Background Over 20% of women are estimated to develop a mental disorder during pregnancy and/or for up to a year postpartum, with anxiety and depression being the most common co-morbidities. Postpartum anxiety is less well studied than postpartum depression in terms of prevalence and risk factors. Suffering from severe postpartum anxiety can put a strain on maternal neglect and disrupt the mother-infant relationship.

Objective: The aim of the study is to determine the prevalence and associated factors of postpartum anxiety symptoms among Palestinian women.

Setting: This study was conducted in Salfit and Nablus at governmental primary health care clinics affiliated with the Palestinian Ministry of Health.

Methods A descriptive, cross-sectional design was utilized on a nonprobability convenience sample. A total of 510 mothers with one healthy baby (0 to 6 months) completed socio-demographic and obstetrics characteristic questionnaire along with Postpartum Specific Anxiety Scale (PSAS).

Results: The majority of women reached postsecondary education (bachelor's degree 58%). The highest percentage of participants (42 %) were between the ages of 26 and 32 years. The majority of participants (81.4%) were unemployed. Although 63% of the participants planned their pregnancy, 36.9% did not. Despite 92% did not report any complications after childbirth and 60% had a normal delivery, but unfortunately, 36.3% of them did not follow up postpartum care at local clinic. Only (44.3%) of the participants reported that the feeding type was natural breastfeeding. Most of mothers (89.2%) had no feeding difficulties. The findings revealed that (91.6%) received support from their husbands. And, (85.7%) received support from other source. The total

number of post-partum women who suffer from postpartum anxiety was 59 out of 510 (11.6%) according to the total score of PSAS.

Conclusion: The results showed a slight variation in the proportions of anxiety according to the demographic variables and characteristics of the women in postpartum period, but these differences had no statistically significance. Only three factors were significant predictors of postpartum anxiety including feeding difficulties, presence of emotional support from husband and presence of emotional support from other source.

Keywords: Prevalence, Postpartum Anxiety, Risk Factors, Mental Health, Palestine.

Chapter One

Introduction

The prevalence of postpartum anxiety symptoms among Palestinian women, as well as its associated factors, were studied in this study. This chapter presents research overview, the problem statement, the significance of the study, the study's objectives, research questions, and hypotheses.

1.1 Research Overview:

Having a kid, particularly a first child, is a significant life adjustment for most women. Even though motherhood is typically seen as a pleasant and important journey, it is acknowledged as a major life event since it involves several physical, emotional, and social changes. Parturients are at a significant risk of developing mental illnesses as a result of these alterations (Javadifar et al., 2016).

In general, according to the World Health Organization (WHO), anxiety disorders are the most prevalent mental disorders globally, with a lifetime prevalence of 5 to 25 percent of the population and a 12-month prevalence of 3.3 to 20.4 percent (Marie, SaadAdeen and Battat, 2020).

It is known that anxiety can happen at any time, however, when it occurs in the year after childbirth, it is labelled as postnatal anxiety (O'Hara and Wisner, 2014). Feeling anxious is a symptom of postpartum anxiety, which is a mental health condition. Despite the fact that it is considered a distinct disorder for many new mothers, depression modules for postpartum screenings are the most commonly used. Rather than assessing depression and lump anxiety symptoms independently, these screenings categorized them into depression category (SIT and WISNER, 2009). It is estimated that the prevalence of postpartum anxiety ranged from 9% to 13% worldwide (Heron et al., 2004).

According to Vazquez and Miguez (2019), over 20% of women are estimated to develop a mental disorder during pregnancy and/or up to a year after delivery, with anxiety and depression being the most common co-morbidities (Pampaka et al., 2018;

Tang et al., 2019). While postpartum depression has gotten a lot of studies and clinical attention, anxiety in the postpartum period has gotten a lot less attention.

After childbirth, the postnatal (or postpartum) phase begins as the mother's body, including uterus size and hormone levels, returns to a non-pregnant state (Ross and McLean, 2006). According to the WHO, the term "postpartum period" refers to the time period following the delivery of a child and lasting up to six weeks. During this time, women are more likely to develop anxiety disorders or have existing anxiety problems worsen (WHO, 2010).

Indeed, the development of the hypothalamic–pituitary–adrenal (HPA) axis is critical for the organism's normal function during adulthood. During the postpartum period, the hypothalamic–pituitary–adrenal (HPA) stress axis is in flux. Many alterations to the HPA axis occur throughout pregnancy, such as the placenta's synthesis of the hormone corticotropin, which spikes during pregnancy before dropping sharply after birth. Additionally, gonadal steroid hormones (such as estrogen and progesterone) are raised during pregnancy but quickly revert to pre-pregnancy levels following delivery. These hormones lead to an increase in adrenocorticotropic hormone and cortisol levels by stimulating the pituitary and adrenal glands. Corticotropin-releasing hormone fluctuations during pregnancy may disrupt the HPA axis, contributing to the emergence of depression and anxiety symptoms in a subset of women who are particularly vulnerable (Pawluski, Lonstein and Fleming, 2017).

Unfortunately, prevalence and risk factors for postpartum anxiety are less well studied than those for postpartum depression. Therefore, O'Hara and Wisner (2014) shed light on the necessity of differentiating between "depression" and "anxiety" in postnatal periods to offer suitable treatments that precisely mark the etiology and symptoms of anxiety. It was reported that anxiety may lead to depression as a result of the consequences of failing to manage stress, or from altered physiological pathways. Women with postpartum anxiety are also less probably to ask for professional help and care than women with postpartum depression (Woolhouse et al., 2009).

Cognitive and behavioral therapy (CBT), is a type of psychosocial intervention for anxiety disorders that has been scientifically validated. In the case of postpartum anxiety, a randomized controlled trial was conducted to see if CBT can help with

anxiety and depression among postpartum women. Routine postpartum care was provided to the control group, whereas the intervention group received both routine postpartum care and CBT. The results indicated that the 6-week cognitive behavioral intervention significantly reduced anxiety scores in the intervention group (Liu and Yang, 2021).

Unfortunately, treatment rates for perinatal psychiatric disorder continue to be low, implying that more work is needed to recognize and involve women in the treatment procedure. Because they are receiving nonpsychiatric perinatal health care, it is preferable to distinguish mothers at greater risk for anxiety in the early postpartum period. An effective assessment, on the other hand, should be able to tell the difference between women who have clinically severe anxiety and really need treatment and women who have anxiety symptoms that are only temporary and will go away on their own (Sharma, Rai and Pathak, 2015).

Summary:

During the postpartum period, mothers are particularly vulnerable to a number of distinct changes that are generally perceived as distressing and stressful. Although such fears are common, some moms may experience significant anxiety as a result of them. Postpartum anxiety has received less investigation in terms of prevalence and risk factors than postpartum depression. The aim of this study was to find out the prevalence of postpartum anxiety symptoms among Palestinian women in the governorates of Salfit and Nablus, as well as the factors that contribute to it.

1.1.1 Mental health in the occupied Palestinian territory (oPt)

According to the Palestinian health information center PHIC, Palestine's overall population is 5.1 million, with 2.59 million males and 2.51 million females living in the three occupied Palestinian areas of the West Bank, Gaza, and East Jerusalem (Palestinian health information center, 2020).

It is noteworthy that the West Bank and Gaza Strip are part of Palestine (Occupied Palestinian Territories), a country located in the eastern Mediterranean that seeks freedom and independence. Moreover, the Palestinian people have endured numerous challenges resulted by Israeli occupation throughout their history. They were subjected

to persecution, deprivation, discrimination and injustice. This occupation, unfortunately, persists to this day. As a result, this difficult political climate has had an impact on the different lifestyles of Palestinians (Qouta, Punamäki and El Sarraj, 2008).

Because of the high levels of acute and chronic stress in the (oPt) as a result of the socio-political environment, the entire Palestinian community has become increasingly sensitive to mental health disorders, particularly anxiety symptoms. According to recent review, anxiety disorders were some of the most frequent mental illnesses in Palestine. They contribute significantly to poor quality of life and disability. The stressors that exist in everyday Palestinian life (severe limits on movement, unemployment, a lack of educational opportunities and healthcare, etc.) have a major impact on personal, familial, and community functioning (Marie, SaadAdeen and Battat, 2020).

Given the intensity of psychological distress, there has always been a demand for mental health practitioners with more expertise and in-service capability. It was also required to improve and enable the skills and flexibility of mental health practitioners in order to promote mental health services. Mental health, on the other hand, is thought to account for 2% of the Palestinian Authority's (PA) health-care budget (WHO, 2014). Most mental health services are insufficient and reliant on outside financing. Furthermore, the Israeli Mental Health Law has not been implemented in the West Bank and Gaza Strip (Marie, Hannigan and Jones, 2016).

The WHO has been working to improve the Palestinian healthcare programs and make plans for more community mental health system. Therefore, mental health services can increasingly be found in the community. In West Bank, there are just thirteen community mental health services and one psychiatric hospital in Bethlehem (Jabr et al., 2013). While, in Gaza, the Gaza Community Mental Health Project (GCMHP) offers professional mental health care as well as training and field research in the domains of mental health programs (Thabet and Vostanis, 1999).

Actually, the available statistics on mental health illnesses are frequently high among the Palestinian population. According to available statistics, around 25% of patients who visited psychiatry centers in three years (2007, 2008, and 2009) had anxiety issues (Palestinian Counseling Center, 2010). In 2013, around 2400 patients were treated in clinics with outpatient services. Of the 2,400 patients, 24.2% were diagnosed with

mental disorders including (post-traumatic stress disorder (PTSD), generalized anxiety disorder (GAD) and clinical depression) and 12.2 % were diagnosed with schizophrenia (Jabr et al., 2013). Furthermore, the Gaza Community Mental Health Program reported in 2017 that 26 percent of patients visiting psychiatric clinics had anxiety problems (Gaza Community Mental Health Program, 2019).

Recently, in the West Bank's various mental health centers, 2,093 new patients were registered in 2020, for a rate of 76.0 per 100,000 persons. Males accounted for 56.7 % psychiatric cases recorded in mental health and community facilities, while females accounted for 42.3 %. The group of participants aged between 25-49 had the most cases, accounting for 822 cases, or 39.3 % of all cases reported according to the age distribution. There were 84,852 visitors to community mental health clinics in the West Bank (Palestinian Ministry of Health, 2021).

Under this challenging context, mental health services have been mostly underdeveloped, under supported, under studied and under resourced (Okasha, Karam and Okasha, 2012). The Palestinian Counseling Center, for example, is a nongovernmental organization that provides a variety of mental health services, such as socio-educational services, psychological counseling and therapy to avoid the onset of psychological disorders. In 1989, the center developed a mental health integration program for primary health care services (Palestinian Counseling Center, 1989). However, there were no reports on how the program was implemented or whether it provided postpartum mental health care.

On the other hand, the provision of CBT in primary care services is also challenging. In 2013, Dr. Samah Jaber, a Palestinian Jerusalemite psychiatrist and psychotherapist, reported that the lack of experience in Palestine combined with the lack of understanding and exercise of supervision among program managers about the cost-effectiveness of supervision is one of the most limiting challenges. Dr. Samah Jabr and her colleagues have emphasized the importance of incorporating CBT techniques into primary health care (Jabr et al., 2013). As a result, this incorporation would enhance mental health and extend psychoeducation principles, allowing for the impact of a wider range of health-related outcomes (Lyman et al., 2016).

1.1.2 Postpartum follow up

The period following delivery is a critical time in the lives of mothers and newborn babies (WHO, 2013). The time after delivery is crucial in the lives of both moms and newborn babies (WHO, 2013). This period is divided into three levels: (1) acute or immediate postpartum, which lasts 6 to 12 hours after delivery, (2) subacute postpartum, which lasts 2 to 6 weeks, and (3) delayed postpartum, which can last up to 6 months (Romano et al., 2010).

It was acknowledged that women with postpartum anxiety most commonly worry about baby's growth, health and care taking (Ali, 2018). In one qualitative study conducted in Palestine to capture the psychosocial as well as physical aspects inherent to postpartum care in addition to the contextual factors that overlap and could negatively impact on well-being. About a third of women described undergoing changes in their emotional states during the postpartum. The emotional changes were typically believed to be caused by external factors like the lack of support; the inability to cope with the demands of childcare; unmet expectations during delivery; the loss of a child; and other external factors like the extended family or the political situation. Some women stated that they felt confused, while others felt more alert and anxious. Furthermore, women's narratives of the postpartum period had four common elements: fatigue/exhaustion; new pressures; change in emotional state; and the concept of 'open body.' The most common pressure that women were faced with was the difficulty in finding a balance between infant care and other responsibilities (Sameeh et al., 2008).

It is recognized that primary health care visits after birth included infant vaccinations, infant health problems, routine postpartum care, and maternal health problems. In Palestine, prenatal care for women and newborns is a major health issue. Only one-quarter of women return for postpartum check-ups, despite the fact that the great majority of moms (96.0 %) receive some antenatal care from a health professional (Center for Development in Primary Health Care, 2003).

The applying of well-researched, evidence-based guidelines has the potentials to expand postpartum care, influence policy and assure consistency of care across health care sectors. Through a technical consultation process, the WHO has updated worldwide guidelines on postnatal services for women and newborns. These guidelines emphasis

on the content and timing of postnatal treatment for mothers and newborns in countries with a low and middle income (WHO, 2013). Moreover, the postpartum follow-up 4 to 6 weeks after delivery for simple cases was also recommended by the American College of Obstetricians and Gynecologists (Kilpatrick et al., 2017).

1.2 Problem statement

Anxiety is the most predominant mental health disorder affecting 25 percent of the global population (Bandelow and Michaelis, 2015). Mothers are particularly vulnerable to a series of unique transitions during the postpartum period, which are frequently perceived as concerning and overwhelming (Fallon et al., 2016). Such concerns and fears are common, but for some mothers, they can lead to a postpartum mood disorder, which can include increased anxiety. It is reported that the prevalence of postpartum anxiety is between 9 to 13 percent globally (Heron et al., 2004).

Moreover, postpartum period is marked by tiredness, new pressures and emotional changes that may have a negative impact on mothers' mentality. Internationally, literature review suggests the prevalence of self-reported anxiety symptoms was 17.8 percent at 1-4 weeks postpartum, 14.9 percent at 5-12 weeks postpartum, 15.0 percent at 1-24 weeks postpartum, and 14.8 percent at >24 weeks postpartum (Goodman, Watson and Stubbs, 2016).

Although numerous studies on postpartum depression (PPD) over the last years have given significant and clear results about anxiety, anxiety during postpartum has been relatively neglected (Nakić Radoš, 2018). General anxiety symptoms were assessed primarily only as predictors of PPD, indicating that anxiety is significant just as an antecedent of PPD, but not per se.

1.3 Significant of study

The results of the literature review were clear that the postpartum period considered as a critical phase for the development of anxiety symptoms. Furthermore, a review of the literature reveals that postpartum anxiety has negative consequences for mother-infant bonding and breastfeeding. No research has been published in Palestine on the prevalence of postpartum anxiety, its associated factors, or the relationship between them. The negative effects of postpartum anxiety, as well as the limited studies on this

topic, highlight the need for further research in Palestine. Therefore, the results of this study will be an important source of information for health care providers and researchers when further investigation of the postpartum period is undertaken. This research may also help the Palestinian Ministry of Health to introduce and adopt the Postpartum Anxiety Screening Tool in all primary health care clinics and during each maternal visit to help women have an anxiety-free period after childbirth and the development of a healthy baby, as well as to prevent further complications. This will also help policy makers and managers in mental health services to define the guidelines and protocol applicable to identifying women suffering during the postpartum period.

1.4 Objectives

1.4.1 General objective

The general objective of this study is to determine the prevalence of postpartum anxiety among Palestinian women in primary health care centers in Salfit and Nablus governorates.

1.4.2 Specific objective

- To identify the relation between the associated factors and the prevalence of postpartum anxiety symptoms among Palestinian women in the government primary health care centers in Salfit and Nablus governorate.
- To recognize the most common risk factors for postpartum anxiety symptoms among Palestinian women in the government primary health care centers in Salfit and Nablus governorate.
- To recognize the available system of support to women during postpartum period.
- To recognize the specific fears and worries related to the postpartum period (postpartum anxieties) by using Postpartum Specific Anxiety Scale (PSAS).

1.5 Research questions

- What is the prevalence of postpartum anxiety symptoms among Palestinian women?
- What are the associated factors that contribute with postpartum anxiety symptoms among Palestinian women?

- What is the relation between the associated factors and the prevalence of postpartum anxiety symptoms among Palestinian women?
- What is the available system of support to women during postpartum period?
- What are the specific fears and worries related to the postpartum period (postpartum anxieties)?

1.6 Research hypothesis

H1: There is a significant prevalence of postpartum anxiety symptoms among Palestinian women.

H0: There is no significant association between the prevalence of postpartum anxiety symptoms and the associated factors of postpartum anxiety symptoms among Palestinian women, at the level p-value ≤ 0.05.

H0: There is no significant association between the prevalence of postpartum anxiety symptoms and the sociodemographic factors among Palestinian women, at the level p-value ≤ 0.05.

H0: There is no significant association between the prevalence of postpartum anxiety symptoms and health and psychological family histories among Palestinian women, at the level p-value ≤ 0.05.

H0: There is no significant association between the prevalence of postpartum anxiety symptoms and the childbirth experiences among Palestinian women, at the level p-value ≤ 0.05.

H0: There is no significant association between the prevalence of postpartum anxiety symptoms and the presence of support among Palestinian women, at the level p-value ≤ 0.05.

Chapter Two

Literature Review

This chapter presents the related studies conducted regarding the prevalence of postpartum anxiety, signs & symptoms, risk factors, causes and measurements tools.

2.1 Search strategy

The researcher used medical and psychiatric research sources (CINAHL, PsycINFO, PubMed, and Google Scholar) to find related studies and papers on this topic, using the following key words: postpartum/postnatal anxiety; postpartum/postnatal anxiety AND Palestine; and risk factors for postpartum/postnatal anxiety. The literature review was expanded to include relevant publications listed in the references of selected articles. If the original text was produced and published in English, it was considered. Furthermore, the literature documents were picked after cross-referencing the various sources and deleting duplicates and extraneous documents.

2.2 Literature review

It is acknowledged that anxiety disorders are common in postpartum women than in the overall people, with estimates of incidence ranging from 6.1 percent to 27.9 percent in the first six months after delivery (Wenzel et al., 2005). The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) does not, however, classify postpartum anxiety disorder as a diagnosis. Furthermore, no diagnostic criteria have been established. In some cases, postpartum anxiety is likely to be an exacerbation of underlying GAD, while in others, it is a situational disorder carried on by the peripartum period's unique circumstances (Misri et al., 2015).

The prevalence of postpartum anxiety has varied based on the anxiety scale used, the research location (country), the recruitment sample, and the assessment period (week/month postpartum). As an example, Bener, Sheikh and Gerber (2012) conducted a cross-sectional study in Qatar to investigate the prevalence of stress, depression and anxiety during the postpartum period, as well as the associated relation of these conditions. About 1659 mothers (79.3%) consented to participate in the study out of a total of 2091 mothers who visited primary health care centers. The study was based on a face-to-face interview utilizing a developed questionnaire that included

sociodemographic data, medical history, family history, stressful life events, and the obstetric factors of patients. The Depression Anxiety Stress Scales (DASS) were used to determine the level of anxiety, stress and depression. The researchers found that the prevalence of postpartum anxiety was 13 percent (as compared to 19 percent for depression and 9 percent for stress). Additionally, they found obviously well-defined sets of females at risk of postpartum anxiety and the relationship between postpartum anxiety and stressful life events. Postpartum employed mothers, for example, were significantly more stressed (60.7 percent) and worried (51.8 percent), with the lack of family support being the most important association for postpartum anxiety (Bener, Sheikh and Gerber, 2012).

Another study examined the prevalence of postpartum anxiety in the early postpartum period to eight weeks postpartum using a different measuring tool. A descriptive cross-sectional study was conducted in which a population-based sample of 522 women accomplished the (STAI), also, a 20-items self-report instrument are valued on a 4-point Likert-type scale to produce a summative score varied from twenty to eighty with higher scores representing higher anxiety levels. The study found that the prevalence at one week postpartum, 22.6 percent of women scored 440 on the STAI, falling to 17.2 percent at 4 weeks and 14.8 percent at 8 weeks. By following the cut-off score of 440, the 1-week STAI precisely categorized 84.0 percent women at 4 weeks and 83.6 percent at 8 weeks with or without anxiety symptoms. The 1-week STAI was significantly related to the 4-week and 8-week STAI. Women with a 1-week STAI score 440 were 15.2 times more potentially at 4 weeks (95%) and 14.0 times more potentially at eight weeks to revel postpartum anxiety symptoms (Dennis, Coghlan and Vigod, 2013).

When determining whether a woman has anxiety, it's important to look at the levels of anxiety disorders in a comparison group of mothers who have not given birth lately to look much more closely at if the postpartum period places mothers at greater risk of developing an anxiety disorder. However, evidence suggests that specific indications and a number of variables may exist. In a comprehensive study conducted to assess the prevalence of postpartum anxiety, in addition to identify statistically significant indicators of self-reported depression and anxiety including demographic factors (such as age group, children number in the family), vulnerability factors (for example, personal psychological history, family psychological history), and a single outward

factor (for example, status of breastfeeding).The study reported on a final sample of 147 mothers who consent to participate in the research and accomplished both study assessments when they were roughly 8 weeks postpartum. In addition to the diagnostic interview following modules from the Structured Clinical Interview for Diagnostic and Statistical Manual of Mental Disorders-fourth edition (DSM-IV), mothers in this sample accomplished the self-report inventories such as Social Interaction Anxiety Scale (SIAS), Penn State Worry Questionnaire (PSWQ) and Beck Anxiety Inventory (BAI). The results revealed that the level of postpartum general anxiety disorders was raised as compared to the level which marks mothers in the general population. Moreover, socioeconomic status, age, and status of breastfeeding were important indicators in a model that measured 17.1 percent of the change in SIAS scores. Although the results showed that the sociodemographic data as a whole did not come close to statistical significance, the number of children in a family was a significant predictor (Wenzel et al., 2005).

In addition, a cross-sectional survey was conducted among 1204 mothers six weeks after giving birth in a baby-friendly hospital in Shanghai, China, to investigate the associations between sociodemographic, perinatal, and postpartum anxiety (PPA) and depression symptoms (PPD). The Edinburgh Postnatal Depression Scale (EPDS) and the Self-Rating Anxiety Scale (SAS) were used to assess anxiety and depression symptoms. It was found that PPA and PPD symptoms were prevalent in 15.2 percent and 23.2 percent of the mothers, respectively. The findings also revealed that having PPD symptoms and fatigue were found to be risk factors for PPA symptoms, while having family support and being satisfied with the childbirth experience were found to be protective factors (Liu et al., 2020).

It stands to reason that the postpartum period is a vulnerable one for developing symptoms of anxiety because women are usually overwhelmed by varying roles and the demands required from them to do. In a study conducted among community-based sample including 68 postpartum women to assess the prevalence of generalized symptoms of anxiety following eight weeks postpartum. All participants accomplished an interview evaluating generalized anxiety disorder & depression, as well as a self-report measure of worry related to the concerns of postpartum mothers. The findings revealed that more than 30 percent of females who are 8 weeks postpartum express

symptoms of general anxiety and worry. On the other hand, only about 12 percent of the sample expressed symptoms of depression. Also, 3 females (4.4%) met DSM-IV criteria for general anxiety disorder, and other 19 females (27.9%) expressed subsyndromal problems with general anxiety. The most common domains of worry valued by postpartum females involve their own appearance, finances, household duties and their surroundings' cleanliness. Women who met the diagnostic criteria for GAD reported a history of difficulty managing anxiety not associated with pregnancy and childbirth and 2 of the 3 stated a history of depression (Wenzel et al., 2003).

Moreover, in a randomized controlled trial, the prevalence of postpartum anxiety during maternity hospitalization and its links to maternal and child outcomes were investigated. The study compared two post-hospital discharge therapy models upon females with "well" newborns more or equal to 34 weeks' gestation. The women then completed baseline in-person interviews throughout their postpartum stay, as well as telephone surveys at two weeks, two months, and six months to assess health-care utilization, depression and anxiety, and breastfeeding duration. All respondents planned to breastfeed. State anxiety scores more or equal to 40 on the State Trait Anxiety Inventory (STAI) was considered. A group of 192 (17 percent) of 1123 respondents' women had a positive baseline STAI. Positive scores were related to Caesarean section (22 percent vs 15 percent), reduced the breastfeeding duration, and increased maternal, but not infant total unplanned health care use within 2 weeks of delivery. Furthermore, the researchers concluded that positive STAI scores occurred frequently at each evaluation process within six months postpartum during the study (Paul et al., 2013).

Indeed, the postpartum period shows one of the most necessary life levels where the precise recognition and treatment of psychological distress is usually needed. It is widely known that anxiety and depression symptoms co-occur and that this comorbidity could be a predictor of the psychological distress severity (Wu and Fang, 2014). This is an especially critical period according to substantial effect of maternal anxiety disorders on relationship with their infants and on child growth (Śliwerski et al., 2020). A quasi-experimental study conducted to assess the effect of postpartum anxiety on the development and growth of the child in 2 multiethnic, peri-urban, communities of Karachi, a larger city of Pakistan. A house-to-house questionnaire-based survey was carried out by well-trained employees; 420 consenting pregnant women were identified,

and data for and family relationship, home environment variables and sociodemographic were gathered between 36 weeks of pregnancy and within 10 days of delivery. The anxiety levels of Mothers were assessed after 1,2,6 and 12 months of childbirth; this was two-step process: an indigenous and initially, validated screening tool Aga Khan University Depression and Anxiety Scale was utilized and diagnostic confirmation was applied via a psychologist's interview depended on the criteria of DSM IV. The inclusive prevalence of postpartum anxiety and depression was recognized to be 28.8 percent. Difficulty in breastfeeding at birth, unplanned current pregnancy and domestic violence were recognized to be significantly associated with postpartum depression and anxiety (Ali, Ali and Azam, 2009).

Moreover, in a study conducted during the first three months following birth among 1024 postpartum women in a German community sample to determine the prevalence of postpartum depression disorders (PDD) and postpartum anxiety disorders (PAD) and their comorbidity. All females accomplished a sociodemographic data sheet including: children number, level of education and age. Two different screening tools were used to assess for anxiety disorders. The Anxiety-SCID-Screening was utilized as a telephone screening and the Anxiety Screening Questionnaire (ASQ-15). The estimated rates of DSM-IV disorders were 11.1 percent for postpartum anxiety disorders. Furthermore, 114 women (18.4 percent) of respondents with an anxiety disorder were identified as having a depressive disorder and 62 women (33.9 percent) of the respondents suffering from depression were identified as having an anxiety disorder. The risk of suffering from anxiety disorders after childbirth was not affected by the female’s level of education and age (Reck et al., 2008).

Furthermore, a comparative cross-sectional study was performed among 500 postpartum mothers, aged 18–40 years attending primary health clinics in Egypt to investigate the prevalence of postpartum anxiety and depression. Mothers meeting the inclusion criteria (2 or 4 months postpartum and not complaining of any chronic psychiatric diseases) and agreed to take part in the study when invited by the researchers were involved. Data were gathered by an interview questionnaire which involved information about sociodemographic, past health history and obstetric characteristics. And the Arabic version of Depression Anxiety Stress Scales (DASS) evaluation of postpartum anxiety and/or depression. The findings revealed that 1.6

percent of the studied mothers who complained of postpartum depression alone, 10 percent complained of anxiety alone, and 21.2 percent complained of both. And, mothers who complained of comorbid anxiety and depression were significantly higher than the normal group. Moreover, the study concluded that there are several important indicators that significantly expect anxiety alone, depression alone and comorbidities, for example, young age, extremely low socioeconomic level, low level of progesterone, past health history of alike cases, and low levels of educational (Wassif et al., 2019).

Another study conducted to determine the prevalence and to identify the risk indicators for postpartum anxiety and comorbid symptoms of depression in a population-based sample of mothers in Illinois and Maryland. The researchers used Pregnancy Risk Assessment Monitoring System, a population-based survey of mothers who delivered live infants. Survey respondents are required to confirmed screening questions on symptoms of depressive and anxiety. The findings demonstrated among 4451 postpartum mothers, 18.0 percent reported postpartum symptoms of anxiety, of whom 35 percent reported postpartum symptoms of depression (6.3 percent totally). In the multivariable model, higher numbers of stressors during pregnancy and giving birth to an infant at more or equal 27 weeks gestation were related to symptoms of postpartum depression and postpartum anxiety experienced solitary or socially. The study concluded that smokers, women experiencing stressful life events, mothers of very preterm infants, and women with preexisting diabetes may be at raised risk of anxiety with or without comorbid depression (Farr et al., 2014).

Additionally, anxiety and depression disorders have been linked to negative outcomes for both the mother and the child. In addition, the prospective-longitudinal Maternal Anxiety in Relation to Infant Development (MARI) research examined risk factors, correlates, and course patterns of depressive and anxiety disorders in 306 expecting women participating gynecological outpatient facilities in Germany during pregnancy and postdelivery. Participants accomplished up to 7 waves of evaluation from early pregnancy until 16 months postpartum. Depressive and Anxiety disorders and potential risk factors/correlates were evaluated with the medical records, Composite International Diagnostic Interview for Women (CIDI-V) and further questionnaires. A considerable number of mothers with a history of particular anxiety disorders before pregnancy expressed the respective symptoms as well as throughout peripartum period. The study

concluded that the strongest indicators for peripartum anxiety and depression disorders, as the depression and anxiety disorders before pregnancy, but psychosocial (for example, maternal educational level), interpersonal (for example, social support, partnership satisfaction) and individual (for example, low self-esteem), and variables were likewise associated (Martini et al., 2015).

On the other hand, marital satisfaction another variable that was studied, as it is expected to play a positive role with in the postpartum period. A study was conducted at the University of Nigeria Teaching Hospital among 309 randomly selected breastfeeding mothers. The Sociodemographic Questionnaire, Hospital Depression and Anxiety Scale, and the Marital Satisfaction Index (IMS) were utilized to gather information on demography, anxiety, depression, and marital relationship correspondingly. The results showed that the prevalence of postpartum anxiety was 31.1 percent, while PPD disorder was 33.3 percent, and the prevalence of postpartum anxiety and depression was 22%. Those with co-morbid anxiety and depression (22.0 percent) had worse marital dissatisfaction. The strongest association with anxiety and depression was item 12 of IMS (‘feel that my partner doesn’t confide in me’) (Odinka et al., 2018).

For several years, maternal mental health investigators were working to enhance knowledge of perinatal anxiety and enhance screening instruments to identify specific anxiety symptoms. It is suggested that understanding postpartum anxiety disorders is of key necessity to design better preventive treatment and interventions protocols. Moreover, maternal psychopathology could adversely affect the child (Glasheen, Richardson and Fabio, 2009).

For instance, Fallon et al., (2016) have proposed a new tool to evaluate symptoms of anxiety specific to the postpartum period. The Postpartum Specific Anxiety Scale (PSAS) was designed by utilizing a 4-stage methodology. First, 51 items were produced from interviews done with a sample of 19 postpartum mothers at 2 time points. Then, the scale was checked and refined by a professional panel, and, after a pilot study, an online sample of 1282 women of infants up to 6 months of age accomplished the PSAS against a battery of other measures. A subsample of 262 mothers repeated the PSAS 2 weeks later. At the optimal cut-off score of 112, 75 percent of mothers with a present

clinical diagnosis of depression and/or anxiety were determined, which surpasses other scales and performed better than other general and postpartum-specific measures.

In addition, the predictive validity of the scale was also examined and confirmed due to infant feeding findings and behaviors (Fallon et al., 2017) and maternal bonding behaviors (Fallon et al., 2019). The first study revealed that PSAS was the only important tool of measuring the mood across all feeding results and behaviors. Whereas, the second has revealed that higher levels of postpartum specific anxiety were linked to impaired bonding of the overall scores, infant focused anxieties and subscales of impaired general bonding, anger and rejection. In both studies, PSAS showed higher predictive strength than the general measures of anxiety e.g., STAI (Spielberger CD et al., 1983).

Recently, Silverio et al., (2021) has conducted a study intended to create a 12-item research short form of the 51-item PSAS and validate it for usage in quick response research at a time of universal crises [PSAS-RSF-C]. They presented the same 12-items, in 5 other languages (Chinese, Spanish, French, Dutch and Italian) to rise universal accessibility of a psychometric tool to evaluate maternal mental health. An online sample of women (n=710) of infants up to 12 weeks old accomplished the PSAS-RSF-C throughout the COVID-19 ‘lockdown’. The validation of the scale has showed hopeful psychometric assets which could be useful for quick measurement of maternal anxiety in the current universal crisis (COVID-19), and any other potential ones.

Summary

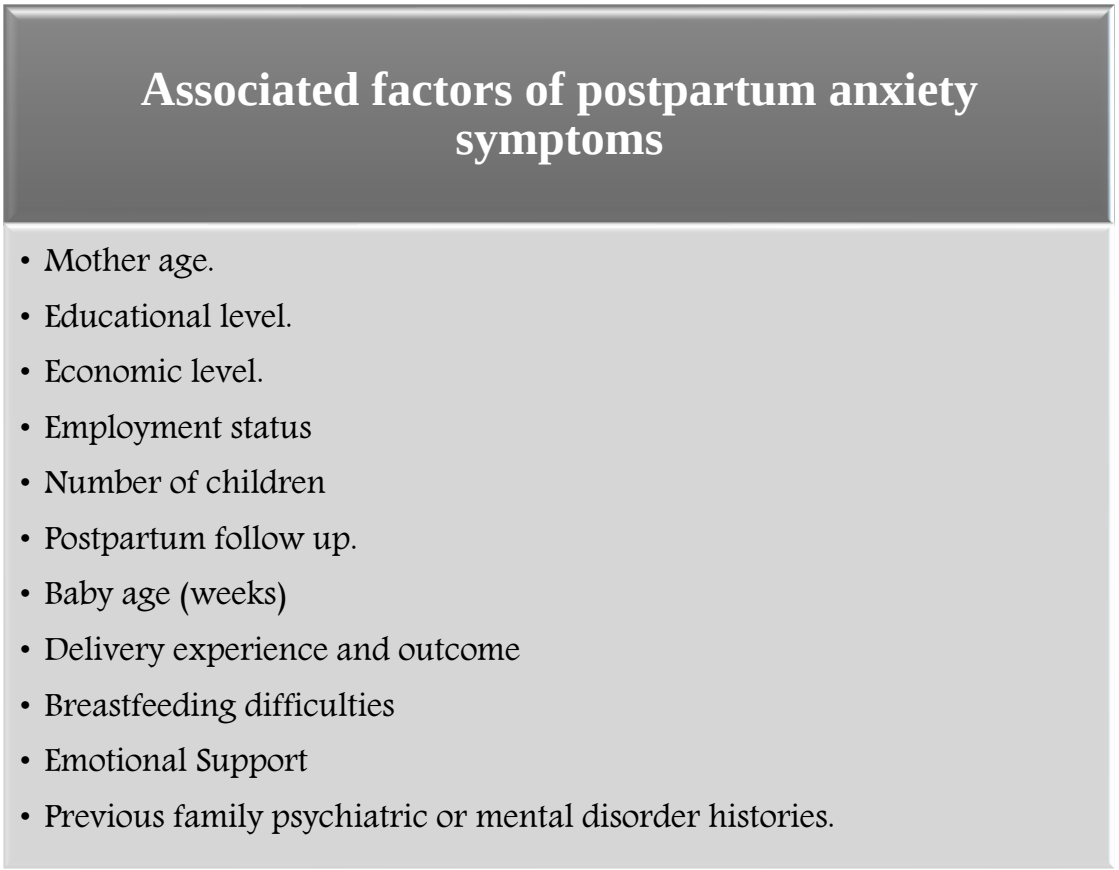
The prevalence of postpartum anxiety varies depending on the anxiety scale applied, the research's origin (country), the recruiting sample (hospitalized or convenience sample), and the assessment period (postpartum week/month). The findings of the studies obviously indicate that postpartum anxiety is prevalent. Furthermore, differences in prevalence may be due to the influence of lifestyle, cultural, social and ethnic variables on anxiety. Emerging evidence reveals that there may be significant predictors and a number of factors that put women at a certain risk of rising anxiety symptoms throughout the postpartum period.

2.3 Conceptual framework

The conceptual framework was created after a comprehensive literature review. It serves as a guideline for study design and construction, as well as a summary and explanation of the variables. It is also used to guide the study process and make the results more relevant and noteworthy.

Figure 1

Associated factors of postpartum anxiety symptoms



2.4 Independent variables

- Socio-demographic variables including: (mother age, level of education, marital status, place of residency, level of income and employment status).
- Medical and psychiatric history.
- Child birth experiences: (age & sex of baby, planned pregnancy, number of children, type of delivery, complication during delivery, satisfying of the sex of the baby, feeding type, feeding difficulties, and received postnatal follow up care)
- Presence of support.

2.5 Dependent Variables

Prevalence of postpartum anxiety symptoms

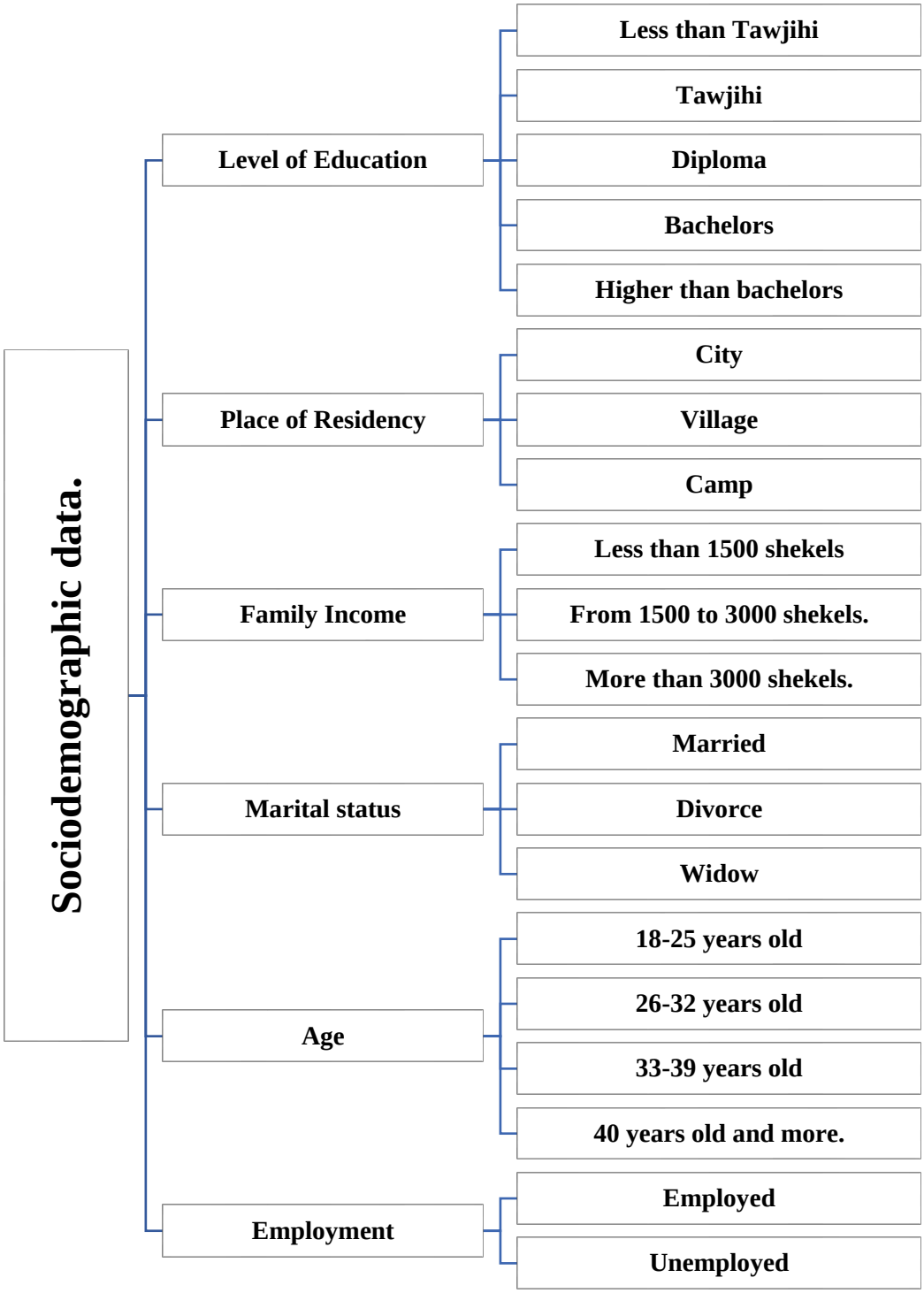
2.6 Conceptual and operational definition of the study variables

Prevalence: It is the percentage of a population that has a particular characteristic within a given time span (NIMH, 2017).

Postpartum Anxiety: Postpartum anxiety is an unreasonable fear or excessive worry that something is wrong that lasts all day, every day, and over a variety of topics. It's comparable to typical anxiety, but it's more intimately tied to becoming a parent and having a baby. Various new mothers have been expressed that sadness after having a baby is common and can turn out to be either postpartum depression or the baby blues. Nevertheless, not all new mother recognizes that feeling enormously anxious or fearful or even having panic attacks, can be almost as common (Mazel, 2020).

Figure 2

sociodemographic data sheet.



Chapter Three
Methodology

3.1 Research Design

This research used a quantitative, descriptive, cross-sectional study approach. Whereas the process of acquiring, evaluating, analyzing, and examining numerical data is referred to as the quantitative method. It can be used to uncover correlations, patterns, and averages, make projections, test causal correlations, and generalize findings to larger groups (Bhandari, 2020). While descriptive statistics are frequently employed to explain the basic properties of research data, they are not always used. It gives concise summaries of the measures and samples; it also serves as the foundation for practically all quantitative data analyses, as well as simple graphical analysis (Trochim, 2020). Furthermore, a cross-sectional study is a type of survey method in which data from a population is examined at a specific point in time (Cherry, 2019).

3.2 Study Population

The target population consisted of all mothers with one healthy baby (0 to 6 months) attending maternal and child health centers (MCH) in governmental primary health care clinics in Salfit and Nablus governorates. According to Palestinian Ministry of Health (2021), the total number of these mothers from January to July 2021 was 5112 mothers in Nablus and 1279 mothers in Salfit.

The six-month cut-off point used reflects the entire range of postpartum phases that have been theorized (Romano et al. 2010).

3.3 Study Setting

This study was carried out in Salfit and Nablus at governmental primary health care clinics affiliated with the Palestinian Ministry of Health.

Salfit governorate clinics: Biddya, Az Zawiya, Qarawat Bani Hassan, Bruqin, Deir Ballut, Deir Istiya, Haris, Qira, Iskaka, Izbat Abu Adam, Kafr ad Dik, Khirbet Qeis, Kifl Haris, Marda, Mas-ha, Rafat, Salfit, Sarta, Yasuf, Zeita Jammain, Farkha.

Nablus governorate clinics: Balata, Almakhfia, Ras Al Ain, Beit Furik, Hawara, Asira ash-Shamaliya, An-Nassariya, Sebastia, Beta, Burqa, Jamma'in, Deir Sharaf, Qabalan, As-Sawiya, Al Naqoura, Bizzariya, Burin, Beit Imrin, Beit Iba, Bayt Dajan, Central care clinic, Talfit, Rujeib, Deir al-Hatab, Sarra, Azmut, Awarta, Urif, Einabus, Qaryout, Talluza, Aqraba, Qusra, Qusin, Majdal Bani Fadil, Yasid, Yatma, Tell, Al-Badhan, Duma, Salim, Al-Lubban ash-Sharqiya, Asira al-Qibliya and Osarin, Udala

3.4 Study Period

The study took place between August 2021 and January 2022. It was started in August 2021 after receiving approval from An-Najah National University's Institutional Review Board (IRB) on the 4th of May 2021 and the Palestinian Ministry of Health's Research Ethics Committee on the 1st of August 2021. The pilot study was conducted between 3-18 August 2021. Data collection was started in 22 August 2021 until 24 November 2021. Then the data entry and analysis were completed during December 2021. The literature review and thesis writing continued until January 10, 2022.

3.5 Sample Size

A total of 510 participants were selected in this study from the women who attended to governmental primary health care centers at Salfit and Nablus governorates; this number was determined according to PSAS Group which suggested using a sample size of 5-10 times the number of items on the used scale (Fallon et al., 2016).

3.6 Sampling Technique

This study used a convenience sampling technique. This is due to what is known as availability sampling, which is a form of non-probability sampling strategy that focuses on collecting data from members of the community that are conveniently accessible to take part in the study. (Sedgwick, 2013).

3.7 Inclusion & Exclusion Criteria

Inclusion Criteria

- All Mothers who had one health baby up to 6 months and attending maternal and child health centers in governmental primary health care clinics in Salfit and Nablus governorates.

- Mothers who are interested to participate in this study.
- Mothers during postpartum period who aged 18 years and above.
- Mothers during postpartum period who resident in the research area.
- Mothers during postpartum period who available at the study period.

Exclusion Criteria

- Mothers who exceed the postpartum period, up to 6months.
- The recent childbirth resulted in twins or more.
- Mothers who do not resident in the research area.
- Mothers who refuse participation in this study.
- Mothers who are not interested to participate in this study.
- Mothers who were on treatment for mental disorders during conducting the present study.

3.8 Study Tool

Section One: A self-questionnaire created with the support of the researcher's supervisor and in cooperation with mental health professionals after noticing, reviewing and modifying various questions and questionnaires from many relevant literature and previous studies. The questionnaire consisted of four factors. First: Socio-demographic data: (mother age, level of education, marital status, place of residency, level of income and employment). Second: Medical and psychiatric history. Third: Child birth experiences: (age & sex of baby, planned pregnancy, number of children, type of delivery, complication during delivery, satisfying of the sex of the baby, feeding type, feeding difficulties, and received postnatal follow up care). Finally, Presence of support.

Section Two: Postpartum anxiety was measured and assessed by using Postpartum Specific Anxiety Scale (PSAS) developed by dr. Victor Fallon and her colleagues in 2016 to assess anxiety symptoms specific to the postpartum period. The scale consists of 51 items and has the following four sub dimensions: maternal competence and attachment anxieties (Items 1-15), infant safety and welfare anxieties (Items 16-26), practical infant care anxieties (Items 27-33), and psychosocial adjustment to motherhood (Items 34-51). Responses to the items are rated on a 4-point Likert scale ranging from 1 to 4 (1 = never, 2 = sometimes, 3 = often, 4 = almost always) with

(possible ranges 51–204). The optimal cut-off PSAS score for detecting clinical levels of anxiety was 112 with a sensitivity and specificity of 0.75 and 0.31, respectively.

3.9 Translation process

Prior to the start of the current study, the PSAS Working Group granted permission to translate and also provided the translation procedure. Three academics with competence in their fields independently translated the PSAS items, instructions for use and scoring guidance from English to Arabic. The three translations were proofread and checked by a specialist in Arabic grammar. The scale then was back-translated by a third researcher, who is a native English speaker. Finally, experienced researchers from the PSAS group evaluated the translated and back-translated versions, selecting the most articulate elements from the three translations and giving their approval to the final version. The translated scale was further checked for spelling errors, grammatical errors, verb conventions, errors of punctuation, diacritics, and linguistic patterns using a checklist throughout the pilot phase.

3.10 Statistical Analysis

The researcher had reviewed and check each questionnaire for completeness and consistency. Data was processed, coded, entered, cleaned, interpreted, and analyzed using Statistical Package for Social Sciences (SPSS V25.0).

Descriptive analysis was utilized to represent frequency and percentages of variables, as well as personal and social characteristics of respondents. Logistic regression was used to analyze the relationship between independent variables including women demographics, health history, childbirth experiences, and support sources variables with the development of postpartum anxiety. The strength of relationship was measured using odds ratio at 95 percent confidence interval and P-values 0.05 was considered significant relationships.

3.11 Pilot Study

A pilot analysis was carried out on 10% of the sample size (n=51), as a pre-test prior to the begin the actual data collection, in order to provide feedback on the questionnaire; check the questionnaire's reliability & validity; to evaluate the viability of the project proposal; to estimate response rate; to assess the actual time required to complete the

questionnaire; to identify topic recruitment; to know areas of vagueness; to identify language weaknesses; and to gain evident opinion on the questionnaire in order to avoid question ambiguity & length. Fifty-one women provided qualitative responses, which were predominantly positive, testifying to the acceptability of the PSAS. Only negative comment was that the scale was too long. After confirming that there is no significant amendment after piloting the questionnaire, those respondents were added to the total participants. In addition, the data were reviewed again during the data analysis stage to ensure that the received data was complete.

3.12 Validity and Reliability of questionnaire

The tool is universal and well known, with reliable and valid use (Cronbach's $\alpha = 0.93$) (Fallon et al., 2016). Many studies have also been conducted to measure its reliability, validity, and applicability in different regions of the world and in different languages. (Davies et al., 2021) Further, the PSAS total score had a strong relationship with conceptually related measures of anxiety (EPDS-A, STAI-state, and STAItrait) and depression (EPDS, BDI), indicating good convergent validity. (Fallon et al., 2016)

In the reliability analysis performed for the PSAS in our study, it was noted that Cronbach's Alpha reliability coefficient for the overall scale was $\propto = 0.741$. While the coefficient for the subscale: Maternal capability and attachment anxieties was $\propto = 0.722$; Infant safety and welfare anxieties was $\propto=0.732$, Practical infant care anxieties was $\propto = 0.746$; Psychosocial adjustment to motherhood was $\propto = 0.738$ respectively.

Also, as for validity, the questionnaire was presented and sent to a panel of scholars and researchers with academic credentials and expert knowledge in mental health to ascertain whether the questionnaire was scientifically correct and if it was fairly well organized to examine the factors and variables and explore the association; to provide evaluation and recommendations on the questionnaire's applicability; and to assess and make a decision if the questions were possible and practical. All of the comments to the questionnaire were taken into account. Furthermore, prior to the start of data collection, a pilot study was performed.

3.13 Data Collection

The data were collected by the researcher from the Maternal Child Health (MCH) centers in the governmental primary health care clinics in the governorates of Salfit and Nablus, affiliated to the Palestinian Ministry of Health.

Because of the spread of COVID-19, there were frequent lockdowns in all of Palestine's governorates during the data collection period. The researcher requested that participants wear a face mask while in the health center, and that the questionnaire be completed in a private room in the health center with no other people present, and tried to schedule the mother's visit in the health center to coordinate with the time of the infant's care or vaccination.

The interview began with providing full instructions to the mothers and clarifications about the study, its objectives, and the importance of providing actual answers. The interview took a place in a timely manner, and with all ethical considerations, so as not to be annoying.

Then, written informed consent was obtained from the mothers and self-administrated questionnaire along with the PSAS-PS were completed via an online link allowed participants to access the online survey. The researcher's devices, such as iPads and tablets, were utilized with caution and disinfected and sterilized between uses. Some mothers preferred to use their own phones and were sent the link via WhatsApp. Their decision was respected, and they were given enough time inside the clinic to complete the questionnaire.

3.14 Ethical Consideration

The researcher was committed to all research ethics and general ethical principles in order to accomplish this thesis. The study was carried out in accordance with the World Medical Association's Declaration of Helsinki Ethical Principles for Human Medical Research (World Medical Association, 2014).

IRB approval was obtained from An-Najah National University. Then an authorization letter from the Palestinian Ministry of Health (Research Ethics Committee approval) was also acquired to allow the researcher to gather data from the research area. Each participant was given a consent form to fill in the questionnaire. The participation was

entirely voluntary, and mothers were able to leave the study at any moment and for any reason.

3.15 Data Security

The online survey was developed in such a way that if certain information was missing, the mother would be unable to submit her replies. Then after confirming her response, the electronic data was kept on a password-protected Computer with an encrypted flash drive that only the researcher had access to. The information was gathered in a password-protected Microsoft Excel file.

Chapter Four

Results

4.1 Introduction

The present study included 510 women from the study area. In this chapter the collected data were edited, tabulated, analyzed and interpreted. The researcher used suitable statistical tests. Characteristics of study participants are demonstrated below. Postpartum period is considered to be one of the most important life stages where precise recognition and psychological disorders treatment is required. This thesis is conducted to identify the prevalence and associated factors of postpartum anxiety symptoms among Palestinian women in primary health care centers in Salfit and Nablus governorates. Also, to recognize the specific worries and concerns associated with postpartum period (postpartum anxieties) by the usage of Postpartum Specific Anxiety Scale (PSAS).

4.2 Descriptive Statistics

4.2.1 Demographic characteristics

Table (1) demonstrates the demographic characteristics of the study respondents in which most of the participants (54%) were from Nablus city and (45.9%) from Salfit city.

Regarding to participants age, (38.2%) of the participants were aged between 18-25, (42.2%) aged between 26-32, (18%) aged between 33-39 and (1.6%) aged older than 40 years old.

As well as, regarding to educational level, (11.2%) of participants were lower than Tawjihi level, (17.8%) obtained a Tawjihi degree, (10.8%) obtained Diploma degree, (58%) obtained a bachelor's degree and (2.2%) with higher qualifications. Moreover, (51%) of participants live in cities, (1.4%) live in villages and (47.6%) live in camps.

Also, according to family income, (6.9%) of participants their monthly income is less than 1500 shekels, (53.3%) their monthly income ranged between 1500-3000 shekels and (39.8%) their monthly income is higher than 3000 shekels.

Finally, the majority of participants (81.4%) were unemployed and (18.6%) were employed.

Table 1

Socio-demographic Characteristics of the participants.

Variable	Category	Frequency	%
Geographical area:	Salfeet.	234	45.9
	Nablus.	276	54.1
Age (years):	18-25.	195	38.2
	26-32.	215	42.2
	33-39.	92	18.0
	≥ 40.	8	1.6
Level of education:	< Tawjihi.	57	11.2
	Tawjihi.	91	17.8
	Diploma.	55	10.8
	Bachelors.	296	58.0
	> Bachelors.	11	2.2
Place of residency:	City.	260	51.0
	Village.	7	1.4
	Camp.	243	47.6
Family Income (shekel):	<1500	35	6.9
	1500- 3000	272	53.3
	> 3000 shekels	203	39.8
Employment status:	Unemployed	415	81.4
	Employed	95	18.6

4.2.2 Health history of the participants

The majority of the participants (92.9%) in this study didn't suffer from any medical diseases and only (7.1%) of them were suffering from medical diseases.

In addition, the majority of the participants (97.6%) didn't have family history of previous psychiatric or mental disorder and only 2.4% reported that their family had a history of mental or psychiatric disorder. See table (2).

Table 2

Health history of the participants.

Predictor	Variable	Category	Frequency	%
Health history.	Suffering from any medical diseases:	No	474	92.9
		Yes	36	7.1
	Having family history of previous psychiatric or mental disorder:	No	498	97.6
		Yes	12	2.4

4.2.3 Childbirth experiences of the participants

Although (63.1%) of the participants planned their pregnancy, (36.9%) did not. With regard to number of children including this baby, the majority of participants (97.6%) had 1 to 3 children, (16.7%) had 4 to 5 children and (5.7%) had more than 6 children. Also, the majority of participants (92.2%) didn't suffer from any complications during delivery, while (7.8%) had suffered. Furthermore, (60.2%) of participants had a normal delivery, while (39.8%) had CS delivery. Unfortunately, (36.3%) of participants didn't follow up postpartum care at any local clinic, while (63.7%) did. Additionally, the current baby gender for (52.2%) of participants was female, compared to (47.8%) male. Most of mothers were satisfied with the baby's gender (99.6%).

Only (44.3%) of the participants reported that the feeding type was natural breastfeeding, while (41%) reported that the feeding type was artificial and (14.7%) was mixed. The majority of women (89.2%) had no feeding difficulties and only (10.8%) declared that they had feeding difficulties. See table (3).

Table 3

Childbirth experiences of the participants.

Variable	Category	Frequency	%
Intended/planned pregnancy:	No	188	36.9
	Yes	322	63.1
Number of children including this baby:	0	0	0
	1-3	396	97.6
	4-5	85	16.7
	≥ 6	29	5.7
Suffering from any complications during delivery:	No	470	92.2
	Yes	40	7.8
Type of delivery:	Normal	307	60.2
	CS	203	39.8
Postpartum follow up at local clinic:	No	185	36.3
	Yes	325	63.7
Current baby gender:	Female.	266	52.2
	Male	244	47.8
Satisfied with the sex of the baby:	No	2	0.4
	Yes	508	99.6
Feeding type:	Breastfeed	226	44.3
	Artificial	209	41.0
	Mixed	75	14.7
Feeding difficulties:	No	455	89.2
	Yes	55	10.8
	M (SD)	**MIN**	**MAX**
Baby age (week):	10.7 (7.3)	1.0	24.0

4.2.4 Emotional support of the participants:

Regarding to the sources of support for women during postpartum period, the findings revealed that (91.6%) received support from their husbands, while (8.4%) didn't. On the other hand, (85.7%) received support from others, while (14.3%) didn't. See table (4).

Table 4

Emotional support of the participants.

Predictor	Variable	Category	Frequency	%
Emotional support during postpartum period.	Husband support.	No	43	8.4
		Yes	467	91.6
	Other than your husband supports.	No	73	14.3
		Yes	437	85.7

4.3 The level of anxiety of the participants in the study

To answer the question about the specific fears and concerns related to the postpartum period (postpartum anxieties), the arithmetic means and standard deviations were extracted from the answers of the sample members on the anxiety scale and its sub-dimensions, as well as the total score as shown in the following table (5).

It appears from table (5) that the arithmetic means of the responses of the sample members to the dimensions of the anxiety scale ranged between (1.62-1.76) and the fourth dimension "Psychosocial adjustment to motherhood" came in the highest rank with an arithmetic mean (1.76 out of 4) at a low level, while the third dimension "Practical infant care anxieties" got the least rank with an arithmetic mean (1.62 out of 4). And, the arithmetic mean of the scale as a whole is 1.71 out of 4 (low level), which indicates that the level of anxiety in the sample was relatively low.

Table 5

Arithmetic means and standard deviations of the answers of scale and each subscale dimension of the anxiety.

No.	Dimensions	Items	Mean	SD	Level
1	• Maternal competence and attachment anxieties.	(Items 1-15)	1.71	0.41	Low
2	• Infant safety and welfare anxieties.	(Items 16-26)	1.65	0.43	Low
3	• Practical infant care anxieties.	(Items 27-33)	1.62	0.41	Low
4	• Psychosocial adjustment to motherhood.	(Items 34-51)	1.76	0.47	Low
Total score for the Anxiety (PSAS) Scale.		(Items 1-51)	1.71	0.39	Low

Note: the arithmetic means of (4).

4.2.5 PSAS scale and its sub-dimensions

4.2.5.1 Maternal competence and attachment anxieties

The arithmetic means and standard deviations of the answers of the study sample members on the items of each dimension of the anxiety scale were extracted individually, and the following is a presentation of them:

It appears from table (6) that the arithmetic means of the answers of the study sample members about the items of the dimension “maternal competence and attachment anxieties” ranged between (1.24-2.78 out of 4), where the highest response (2.78) was to statement 8 that says “I have felt frightened when my baby is not with me.” Which reflected a medium level of anxiety, while the least response (1.2) was to statement 11 that says “I have worried that my baby feels more content in someone else's care” Which reflected a low level of anxiety.

Table 6

Arithmetic means and standard deviations of the items in the first domain dimension "maternal competence and attachment anxieties".

No.	Items of maternal competence and attachment anxieties:	Mean	SD	Level
1	I have felt unable to juggle motherhood with my other responsibilities.	1.95	0.888	Low
2	I have worried more about my relationship with my family than before my baby was born.	1.51	0.725	Low
3	I have worried about accidentally harming my baby.	1.74	0.948	Low
4	I have worried about how I will cope with my baby when others are not around to support me.	1.42	0.666	Low
5	I have felt that I do not get enough support.	1.45	0.717	Low
6	I have been less able to concentrate on simple tasks than before my baby was born.	1.91	0.886	Low
7	I have felt that I should not need help to look after my baby.	1.88	1.022	Low
8	I have felt frightened when my baby is not with me.	2.78	1.166	Medium
9	I have worried I will not know what to do when my baby cries.	1.64	0.810	Low
10	I have worried more about my relationship with my partner than before my baby was born.	1.48	0.787	Low
11	I have worried that my baby feels more content in someone else's care.	1.24	0.622	Low
12	I have felt isolated from my family and friends.	1.68	0.873	Low
13	I have worried about my baby's weight.	1.42	0.718	Low
14	I have worried about getting my baby into a routine.	1.62	0.778	Low
15	I have worried that I will become too ill to care for my baby.	1.92	0.964	Low
	Maternal competence and attachment anxieties.	1.70	0.40	Low

Note: The arithmetic means of (4).

4.2.5.2 Infant safety and welfare anxieties

It appears from table (7) that the arithmetic means of the answers of the study sample members about the items of the dimension "Infant safety and welfare anxieties" ranged between (1.14-2.68 out of 4), where the highest response (2.68) was to statement 7 that says "I have thought of ways to avoid exposing my baby to germs" Which reflected a medium level of anxiety, while the least response (1.14) was to statement 5 that says "I have had negative thoughts about my relationship with my baby." Which reflected a low level of anxiety.

Table 7

Arithmetic means and standard deviations of the answers of the items in the domain dimension "infant safety and welfare anxieties".

No.	Items of "Infant safety and welfare anxieties" dimension	Mean	SD	Level
1	I have worried about my baby being accidentally harmed by someone or something.	2.16	1.060	Medium
2	I have felt unconfident or incapable of meeting my baby's basic care needs.	1.30	0.576	Low
3	I have worried about being unable to settle my baby.	1.52	0.644	Low
4	I have felt a greater need to do things in a certain way or order than before my baby was born.	2.02	0.957	Medium
5	I have had negative thoughts about my relationship with my baby.	1.14	0.459	Low
6	I have worried more about my relationship with my friends than before my baby was born.	1.30	0.594	Low
7	I have thought of ways to avoid exposing my baby to germs.	2.68	1.166	Medium
8	I have worried that my baby is less content than other babies.	1.51	0.899	Low
9	I have felt that other mothers are coping with their babies better than me.	1.23	0.565	Low
10	I have felt that I am not the parent I want to be.	1.23	0.556	Low
11	I have worried more about completing household chores than before my baby was born.	2.12	0.971	Medium
	Infant safety and welfare anxieties.	1.65	0.43	Low

The arithmetic means of (4).

4.2.5.2 Practical infant care anxieties

It appears from table (8) that the arithmetic means of the answers of the study sample members about the items of the dimension "Practical infant care anxieties" ranged between (1.32-2.02 out of 4), where the highest response (2.02) was to statement 3 that says "I have felt that I have had less control over my day than before my baby was born." which reflected a medium level of anxiety, while the least response (1.32) was to statement 6 that says "I have felt that when I do get help it is not beneficial." which reflected a low level of anxiety.

Table 8

Arithmetic means and standard deviations of the answers of the items in the domain dimension "practical infant care anxieties".

No.	Items	Mean	SD	Level
1	I have not taken part in an everyday activity with my baby because I fear they may come to harm.	1.34	0.646	Low
2	I have worried about my baby's milk intake.	1.65	0.844	Low
3	I have felt that I have had less control over my day than before my baby was born.	2.02	0.884	Medium
4	I have worried more about my finances than before my baby was born.	1.51	0.817	Low
5	I have worried about my baby's health even after reassurance from others.	1.64	0.879	Low
6	I have felt that when I do get help it is not beneficial.	1.32	0.593	Low
7	I have worried that my baby will stop breathing while sleeping.	1.95	0.963	Low
	Practical infant care anxieties.	1.61	0.41	Low

The arithmetic means of (4).

4.2.5.3 Psychosocial adjustment to motherhood

It appears from table (9) that the arithmetic means of the answers of the study sample members about the items of the dimension "Psychosocial adjustment to motherhood" ranged between (1.09-2.45 out of 4), where the highest response (2.45) was to statement 1 that says "I have used the internet for reassurance about my baby's health." Which reflected a medium level of anxiety, while the least response (1.09) was to statement 3 that says "I have felt that my baby would be better cared for by someone else." which reflected a low level of anxiety.

Table 9

Arithmetic means and standard deviations of the answers of the items in the domain dimension "psychosocial adjustment to motherhood".

No.	Items of "psychosocial adjustment to motherhood" dimension	Mean	SD	Level
1	I have used the internet for reassurance about my baby's health.	2.45	1.005	Medium
2	I have worried about leaving my baby in a childcare setting.	2.06	1.241	Medium
3	I have felt that my baby would be better cared for by someone else.	1.09	0.367	Low
4	I have worried that I am not going to get enough sleep.	2.31	1.07	Medium
5	I have felt that motherhood is much harder than I expected.	2.10	1.01	Medium
6	I have worried that my baby is picking up on my anxieties.	1.65	0.83	Low
7	I have worried about the bond that I have with my baby.	1.26	0.61	Low
8	I have worried about the length of time that my baby sleeps.	1.56	0.79	Low
9	I have worried about returning to work.	1.52	0.93	Low
10	I have worried more about my appearance than before my baby was born.	1.93	1.01	Low
11	I have had difficulty sleeping even when I have had the chance to.	2.10	1.01	Medium
12	I have worried that other people think that my parenting skills are inadequate.	1.42	0.75	Low
13	I have worried that my partner finds me less attractive than before my baby was born.	1.55	0.83	Low
14	I have worried that my baby is not developing as quickly as other babies.	1.26	0.60	Low
15	I have felt resentment towards my partner.	1.56	0.795	Low
16	I have worried about the way that I feed my baby.	1.39	0.657	Low
17	I have repeatedly checked on my sleeping baby.	2.34	1.069	Medium
18	I have felt tired even after a good amount of rest.	2.19	0.944	Medium
	Psychosocial adjustment to motherhood.	1.76	0.465	Low

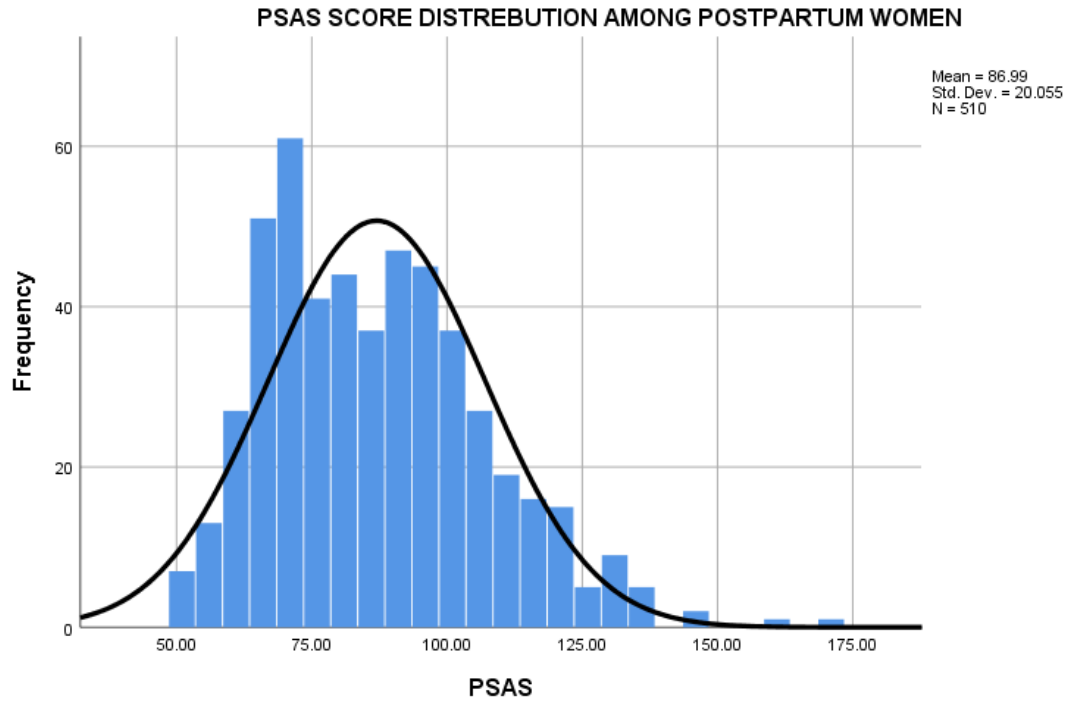
The arithmetic means of (4).

4.1 Prevalence of postpartum anxiety

Figure 1 revealed that the mean of PSAS score (possible ranges 51–204) was 96.88 out of 204 among study participant. Furthermore, nearly 70% of participants had PSAS score mean between 66 to 107 out of 204.

Figure 3

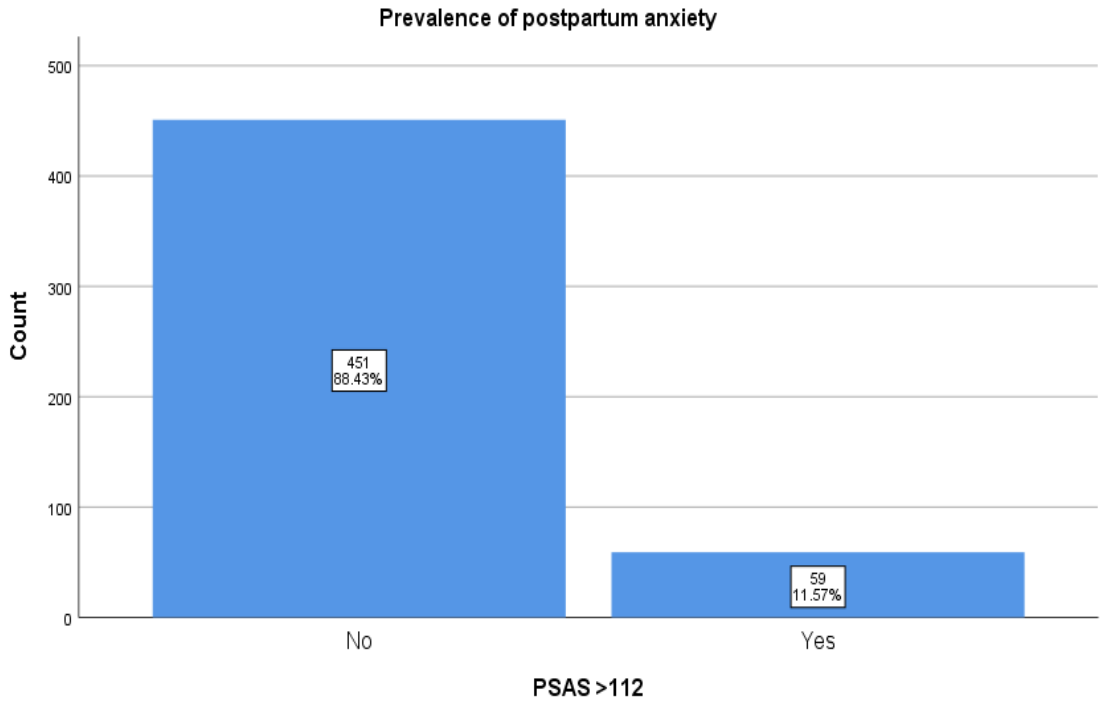
The distribution of PSAS score among study participants.



The total number of post-partum women participating in the study who suffer from postpartum anxiety was 59 out of 510 (11.6%), while the rest (88.4%) did not suffer from postpartum anxiety according to the total score of PSAS.

Figure 4

The prevalence of postpartum anxiety among study participants.



4.4 Association between prevalence of PPA and independent Variables

4.4.1 Prevalence of postpartum anxiety according to demographic variables and characteristics correlation

Although there was slight variation in the proportions of anxiety according to the demographic variables and characteristics of the women in postpartum period, these differences had no statistically significance (p values > 0.05).

Table 10

Association between PSAS and socio- demographic Variables.

		PSAS							
		No		Yes		Total			
Variable	**Category**	**N**	**%**	**N**	**%**	**n**	**%**	**X^2**	**P value**
Geographical area:	Salfeet.	201	44.6	33	55.9	234	45.9	2.71	0.099
	Nablus.	250	55.4	26	44.1	276	54.1		
Age (years):	18-25.	167	37	28	47.5	195	38.2	3.06	0.382
	26-32.	192	42.6	23	39	215	42.2		
	33-39.	85	18.8	7	11.9	92	18		
	≥ 40.	7	1.6	1	1.7	8	1.6		
Level of education:	< Tawjihi.	50	11.1	7	11.9	57	11.2	2.76	0.599
	Tawjihi.	79	17.5	12	20.3	91	17.8		
	Diploma.	52	11.5	3	5.1	55	10.8		
	Bachelors.	261	57.9	35	59.3	296	58		
	> Bachelors.	9	2	2	3.4	11	2.2		
Place of residency:	City.	214	47.5	29	49.2	243	47.6	0.126	0.939
	Village.	231	51.2	29	49.2	260	51		
	Camp.	6	1.3	1	1.7	7	1.4		
Family Income (shekel):	<1500.	29	6.4	6	10.2	35	6.9	2.96	0.228
	1500- 3000.	237	52.5	35	59.3	272	53.3		
	> 3000.	185	41	18	30.5	203	39.8		
Employment status:	Employed.	363	80.5	52	88.1	415	81.4	2.01	0.156
	Unemployed.	88	19.5	7	11.9	95	18.6		

4.4.2 Association between PPA and Health history Variables

Neither suffering from any medical diseases nor having family history of psychiatric or mental disorders had had any relationship with occurrence of post-partum anxiety (p value = 0.65 and 0.20 respectively).

4.4.3 Association between PPA and Childbirth experiences Variables

The p value of the chi square statistical test for the variable breastfeeding difficulties was (11.6), while the value of the statistical significance was (0.001), and that is less than 0.05, meaning that the sample suffers from breastfeeding difficulties and they have anxiety in this task.

On the other hand, the other variables related to childbirth experience of the participating women had no any statistically significance relationship (*p* values were above 0.05) with the occurrence of postpartum anxiety. For more details see table (7).

4.4.1 Association between PPA and Emotional support Variables

While the value of the correlation chi-square statistical test was (15.9) and the value of p statistical significance (< 0.001) which is less than 0.05, so the presence of support from the husband had a relationship with postpartum anxiety; those women supported

by their husbands had lower proportion of postpartum anxiety compared with women who did not receive any support by their husbands.

Also, the presence of support from others had a relationship with postpartum anxiety development; those women supported by other persons than husbands had a statistically significant (*p* value <0.001) lower proportion of postpartum anxiety compared with women who did not receive any support by other persons than husbands. See table (8).

4.5 Predictors of the postpartum anxiety

Logistic regression has been used to analyze the relationship between independent variables including women demographics, health history, gynecological, and support sources variables with the development of postpartum anxiety.

Only 3 of the 19 factors included in the regression model were significant predictors of postpartum anxiety.

The most significant postpartum anxiety predictor was feeding difficulties; women who felt feeding difficulties during postpartum period are 2.5 times more likely to develop postpartum anxiety (95% CI: [1.181- 5.342], sig: 0. 017).

The second significant postpartum anxiety predictor was Husband support; women who got psychologically husband support during postpartum period are 0.32 times less likely to develop postpartum anxiety (95% CI: [.135- .784], sig: 0.012).

The third significant postpartum anxiety predictor was other than husband support; women who got psychologically other than husband support during postpartum period are 0.33 times less likely to develop postpartum anxiety (95% CI: [.164- .703], sig: 0.004).

Although women who suffer from any medical diseases was not statistically significance (95% CI [.513-4.391], sig; .458), these women had 1.5 times more likely to develop postpartum anxiety. Also, the previous history of mental disorders was not statistically significance (95% CI [.168- 27.55], sig; .557), these women had 2.14 times more likely to develop postpartum anxiety. The details of regression analysis model are shown in Table (9).

Chapter Five

Discussion

The aim of this chapter is to compare and match the findings represented in Chapter two with existing literatures.

Postpartum period is characterized by tiredness, emotional changes and pressures, that may have a negative impact on mothers' mentality. In the present study, it was aimed to determine the prevalence and associated factors of postpartum anxiety symptoms among Palestinian women from maternal child health centers in the governmental primary health care clinics in the governorates of Salfit and Nablus, affiliated to the Palestinian Ministry of Health**.**

Because there was no specific scale to assess women's levels of anxiety during the postpartum period in Palestine, it was decided to translate an Arabic version of the Postpartum Specific Anxiety Scale (PSAS), a 51‐item tool that evaluates a wide range of anxieties experienced by women throughout the first six months postpartum. The PSAS Working Group given permission to translate prior to the current study, and they also provided the translation process (Fallon et al., 2016).

After piloting the questionnaire and establishing that no significant changes had been made, the original scale was adapted to the features of the Palestinian population using pilot and data analyses that assessed reliability, acceptability, and validity of the translated instrument. The Cronbach's alpha coefficient for the scale was calculated to be $\propto = 0.741$, which indicates acceptable reliability.

According to the findings of the current study, the prevalence of postpartum anxiety among women (with a total score of 112 or higher) was found to be 11.6 % (59/510). This is similar to an Egyptian investigation, 10% of 500 postpartum females aged 18–40 years old showed postpartum anxiety symptoms (Wassif et al., 2019). Furthermore, one study from Qatar carried out by Bener, Sheikh, and Gerber, (2012) found that 13% of participants reported postpartum anxiety symptoms. The findings of Liu et al., (2020) were also similar to those of our study, in which 15.3 % had postpartum anxiety. Also, when compared with the study of Dennis, Coghlan and Vigod, (2013) who found that the prevalence at 1 week postpartum, 22.6 percent of mothers scored 440 on the STAI,

decreasing to 17.2 percent at 4 weeks and 14.8 percent at 8 weeks. A greater rate was also found in the study of Paul et al., (2013), which showed that 192 (17%) of 1123 participating mothers having a positive baseline STAI. Other studies, however, have found a higher prevalence of postpartum anxiety, with a rate of 28.8% in the study of Ali, Ali, and Azam, (2009) and 31.1% in the study of Odinka et al., (2018). From the researcher point of view, the prevalence of postpartum anxiety has varied depending on the anxiety scale applied, the assessment time (postpartum week/month), the enrollment sample (convenience or hospitalized sample), and the research h's origin (country).

In light of the Palestinian society's classification as a "young society" according to Palestinian Ministry of Health, (2021); the findings of the study showing women aged between 26 to 32 had the greatest participation; rate of (42%), may be justified. Furthermore, the number of young individuals (18-29 years old) with a bachelor's degree or higher in Palestine increased from 120 per 1000 in 2007 to roughly 180 in 2019 (Palestinian Ministry of Health, 2021), which may explain why (58%) of the participants received a bachelor's degree. After applying Logistic regression analysis, the findings revealed that there are no statistically significant differences in the mean of PPA for both age group and education levels ($P < 0.05$). The findings of Reck et al., (2008) are comparable to those of our study, which investigated 1024 postpartum women in a German community sample for the first three months after delivery and discovered that education levels and mothers' age were unrelated to PPA. In contrast, an Egyptian study by Wassif et al., (2019) and a German survey by Martini et al., (2015) indicated that there are several important indicators that predict anxiety during postpartum, such as young age and low educational levels. While other study of Yelland, Sutherland and Brown, (2010) explained that older women have higher degrees of maturity and life experience, making them better able to cope with the emotions of parenthood than younger mothers. Furthermore, Education can operate as a protective factor by increasing sentiments of self-efficacy and decreasing feelings of shame, both of which can help to reduce mental disorders (Biaggi et al., 2016).

As for the rest of the socio-demographic data including geographical area, place of residence, family income and employment status, the findings revealed that there are no significant differences in the mean PPA for all ($P < 0.05$). The current findings contrasted with findings of Wassif et al., (2019) who discovered that low

socioeconomic status, for example, is a strong predictor of PPA development; as well as with findings of Wenzel et al., (2005) who found socioeconomic status were significant predictors in a model representing 17.1 percent of the variance in SIAS scores. Furthermore, postpartum working mothers were more anxious (51.8 percent) & stressed (60.7 percent) and had a significant association with postpartum anxiety (Benner, Sheikh and Gerber, 2012).

Regarding the economic status, the majority of the mothers (81.4%) were unemployed or housewives, while the employed constituted (18.6%). Furthermore, the results showed that (51%) lived in the city, and the largest percentage (54%) of those whose income ranged from 1500-3000 shekels (458-970 dollars). Actually, the second and third waves of COVID-19, which emerged in the spring of 2020, were more difficult, affecting both health and economic resources. Due to uncertainties about the execution of COVID-19 vaccinations, the continuous "lockdown-open-surge-lockdown" cycle will hinder economic activity (Palestinian Territories' Economic Update — April 2021). In addition, unemployment rates in Palestine have risen over the last ten years (Anon, 2021). As a result, women have made major contributions to the growth of their country's economy as skilled and unskilled laborers, public servants, farmers, traders, artists, and professionals in a range of professions, in addition to their essential roles as mothers and spouses. With these responsibilities, the Palestinian mother tries to meet the needs of her new baby while adjusting to the changes and healing physically from the birth. All of these factors may put new mothers at risk for mental health problems during the postpartum period.

During their maternity journey, postpartum women in Palestinian culture desire to be like their moms, and mothers are usually supportive of their daughters during this time. Sisters, mothers-in-law, sisters-in-law, and other female relatives are often involved in the early stages of motherhood, from breastfeeding to baby care and bathing, learning about their cries, nutritional advice, and managing other aspects of well-being and health, as well as caring for the family. However, with increased financial and geopolitical difficulties to access, there is a chance that this support system has changed; particularly as more young couples leave their communities to pursue jobs or work in cities (Taraki, 2006). This may mean that new mothers should adapt with motherhood in isolation from the traditional support system of women.

An exciting result in this research is that 91.6 percent of participants reported that they received support from their husbands, while 85.7 percent revealed they also received support from others. One possible explanation is that Palestinian women had a more affectionate and trustworthy relationship with their mothers in general. In our study, a link between postpartum anxiety and the presence of psychological support either husband or other family members was found to be a significant PPA predictor (*p* value <0.001). Not unexpectedly, and reliable to the findings of previous study conducted by Liu et al., (2020), having support from family was revealed to be a protective factor against PPA symptoms. Parturients who had less family support were at a substantially higher risk of developing PPA symptoms. This conclusion could be explained by the fact that the presence of support and care givers acts as a support system, boosting new mothers' self-esteem, providing emotional support, and allowing the parturient to adjust to the role of motherhood more easily (Chalmers, Mangiaterra and Porter, 2001).

While our study revealed no significant relation between childbirth experiences including (mood of delivery, complication during delivery, type of feeding, satisfaction of baby gender) with PPA, Liu et al., (2020) found that being satisfied with labor experience was a protective factor for PPA. Only one factor from childbirth experiences was contributed with prevalence of PPA. The value of the square for the variable breastfeeding difficulties was (11.6), while the value of the statistical significance was (0.001), which is less than 0.05, meaning that the sample suffers from breastfeeding difficulties and they have anxiety in this task.

Likewise, breastfeeding is a good indicator of a woman's postpartum health, studies indicate that postpartum anxiety is related to a lower rate of breastfeeding initiation, a shorter breastfeeding time, and a lower rate of breastfeeding exclusivity (Hoff et al., 2019). With appreciation for the educational activities implemented by the Palestinian Authority's Ministry of Health to support and encourage mothers to breastfeed in hospitals and primary care centers, it is recommended that these activities should be continued, with special attention paid to women suffering from postpartum anxiety.

Regarding the last variable health history, our study revealed that the majority of the participants in this study had no prior medical history, and only 7% of them were experiencing health problems. In addition, only 2.4% reported that their family had a

history of mental or psychiatric illness. Our findings demonstrated no significant relationship between health and psychiatric history with the prevalence of PPA. This is in contrast to Farr et al., (2014) who found that women with diabetes showed more anxiety, for example.

Summary:

Based on demographic data and postpartum characteristics, it was clear that there was a slight variation in the proportions of anxious women, but these differences were not statistically significant (p values > 0.05). Only three out of the 19 variables in the regression model were shown to be significant predictors of postpartum anxiety. Feeding difficulties were the most important postpartum anxiety predictor; women who experienced feeding difficulties during the postpartum period were 2.5 times more likely to develop postpartum anxiety. Husband support was the second important postpartum anxiety predictor; women who received psychologically supportive husband assistance throughout the postpartum period were 0.32 times less likely to experience postpartum anxiety. And the third significant postpartum anxiety predictor was receiving support from others; women who received psychological support during the postpartum period were 0.33 times less likely to develop postpartum anxiety.

Furthermore, after observing the specific anxieties and worries associated to the postpartum period (presented in chapter four), it was obvious that mothers' responses to the PSAS items were an indicator for applying as an effective measurement instrument in assessing anxiety levels in mothers throughout the postpartum period. If this scale is implemented in future studies in Palestine, it will be more efficient. As a result, women with high levels of anxiety may receive appropriate psychosocial support.

Chapter Six

Conclusion and Recommendations

6.1 Conclusion

The postpartum period is a critical time in the lives of mothers and can have a negative impact on mothers' mental health. The results showed a slight variation in the proportions of anxiety according to the demographic variables and characteristics of the women in postpartum period, but these differences had no statistically significance. Only three factors were significant predictors of postpartum anxiety including: feeding difficulties, presence of emotional support from husband and presence of emotional support from other source. This problem may be exacerbated by the urgent need to address mental health care in Palestine. Therefore, having a better knowledge of postpartum anxiety is critical to developing more effective prevention and treatment strategies.

6.2 Recommendations

This research recommends the Palestinian Ministry of Health to introduce and adopt the Postpartum Anxiety Screening Tool (PSAS) in all primary health care clinics and during each maternal visit to help women have a stress-free period after childbirth and healthy baby development, as well as to prevent further complications.

Nurses will continue to play an important role in advancing and promoting global health systems. The MSc Community Mental Health Nursing program is designed to train highly qualified mental health nurses to work in community mental health centers. Hence, the researcher recommends employing community mental health nurses in all maternal and child health clinics to enhance women's mental health.

The researcher recommends that decision-makers promote health awareness and education programs in primary health care centers and through various media to raise awareness of symptoms of postpartum anxiety and the necessity of early assessment. In order to properly implement care plans for individuals, the researcher recommends forming a multidisciplinary team and forming collaborative connections between different mental health specialists, such as mental health nurses and social workers.

Where it was found that the presence of emotional support during the postpartum period is a protective factor for PPA, the researcher recommends that the supportive person's role, whether it be the husband, mother, or others, should be strengthened and maintained.

Furthermore, with appreciation for the educational activities implemented by the Palestinian Authority's Ministry of Health to support and encourage mothers to breastfeed in hospitals and primary care centers, it is recommended that these activities be continued, with special attention paid to women suffering from postpartum anxiety.

Finally, although this study is descriptive, it opens the door for more community mental health research particularly on the nature of postpartum anxiety symptoms and other specific factors that influence their development. Hence, the researcher encourages and recommends more research on this issue among Palestinian women.

6.3 Limitation of the study

The study's main shortcoming is that it was only investigated at two districts: Nablus and Salfit. As a result, the findings of this study are limited to the participants who were surveyed and cannot be applied to people in all of Palestine's governorates. Also, samples for this study have been carried out during the COVID-19 pandemic, which may have influenced the findings. Furthermore, it was apparent that some moms would not visit the clinic for a postpartum check-up for a variety of reasons. It is possible that there is no enough knowledge about postpartum care, not feeling well enough to walk to the clinic, no time or no transportation or may be the mother tries to stay at home and may be the father or grandmother will return back the baby for routine vaccine.

In addition to the presence of military barriers set up by the Israeli occupation authorities, obstructing access to clinics and increasing time, effort, and transportation costs.

6.4 Strength of the study

Most of the studies in Palestine focused on Post-Partum Depression while anxiety during postpartum has been relatively neglected. This is the first study of its kind to exist regarding postpartum conducted to investigate prevalence of post-partum anxiety in Palestine. This was also the first Arabic study to apply the scale, which was translated

according to the guidelines provided by the scale's creators, who are experienced PSAS researchers. They also assessed the translated and back-translated versions, choosing the most articulate aspects from the three translations and approving the final version. Furthermore, all mothers who participated in the study were interested and took a chance to express their feelings.

List of Abbreviations

Abbreviation	Explanation
BAI	Beck Anxiety Inventory
CBT	Cognitive Behavioral Therapy
CDPHC	Center for Development in Primary Health Care
CS	Cesarean Section
DASS	Depression Anxiety Stress Scales
DSM-5	Diagnostic and Statistical Manual of Mental Disorders, 5th edition
EPDS	Edinburgh Postnatal Depression Scale.
GAD	General Anxiety Disorders
HAMA	Hamilton Anxiety Scale
HPA	Hypothalamic–Pituitary–Adrenal
MCH	Maternal Child Health
MOH	Ministry of Health
oPt	Occupied Palestinian territory
PHIC	Palestinian health information center
PPA	Postpartum Anxiety
PPD	Postpartum Depression
PSAS	Postpartum Specific Anxiety Scale
[PSAS-RSF-C]	Postpartum Specific Anxiety Scale –Research Short Form –for global Crises
PTSD	Post-traumatic stress disorder
STAI	State-Trait Anxiety Inventory
TFR	Total fertility rate
WHO	World Health Organization

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Appendices

Appendix A

IRB Approval

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

جامعة النجاح الوطنية
كلية الطب وعلوم الصحة
لـجنـة اخلاقـيات الـبحث العلمي

Ref: Mas. May *2021/3*

IRB Approval Letter

Study Title:

Prevalence and associated factors of post-partum anxiety symptoms among Palestinian women

Submitted by :
Sana Saad Aldeen

Supervisor:
Mohammad Marie , Jamal Qaddumi

Date Approved:
4th May 2021

Your Study "**Prevalence and associated factors of post-partum anxiety symptoms among Palestinian wome**" viewed by An-Najah National University IRB committee and was approved on 4th May 2021.

Hasan Fitian, MD

IRB

IRB Committee Chairman
An-Najah National University

نابلس - ص.ب 7 أو 707 || هاتف 2342902/4/7/8/14(09) (970) || فاكسميل 2342910 (09) (970)

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 B

Permission to use and translate PSAS.

UNIVERSITY OF LIVERPOOL

Eleanor Rathbone Building
Bedford Street South
Liverpool
L69 7ZA
E V.Fallon@liverpool.ac.uk

Thursday 11th March 2021

Dear Sana Saad Adeen & Dr. Mohammad Marie,

Re:- Permission to use the Postpartum Specific Anxiety Scale.

I am writing in my capacity as a Chief Investigator of the Postpartum Specific Anxiety Scale [PSAS] with regard to the translation and validation of the scale into Palestinian Arabic. It is my understanding that the translation and validation will form the basis of an Master's Research Project.

The Postpartum Specific Anxiety Scale (Fallon, Halford, Bennett, & Harrold, 2016) was originally published in the journal *Archives of Women's Mental Health*. Since then, the PSAS Working Group have been liaising with fellow colleagues, collaborators, and researchers to translate and validate the scale into other languages, as well as utilise the scale in different contexts. The PSAS validation paper was published Open Access.

The scale is subject to a copyright agreement as follows:

"The PSAS is licensed by the creator, Vicky Fallon of the University of Liverpool and is licensed under the Creative Commons Attribution-Non-Commercial-No Derivatives 4.0 International License (CC-BY-NC-ND 4.0)"

This means that you are allowed to download the questionnaire and share it with others as long as you credit the original authorship team, but you cannot change it in any way or use it commercially without permission from the creator.

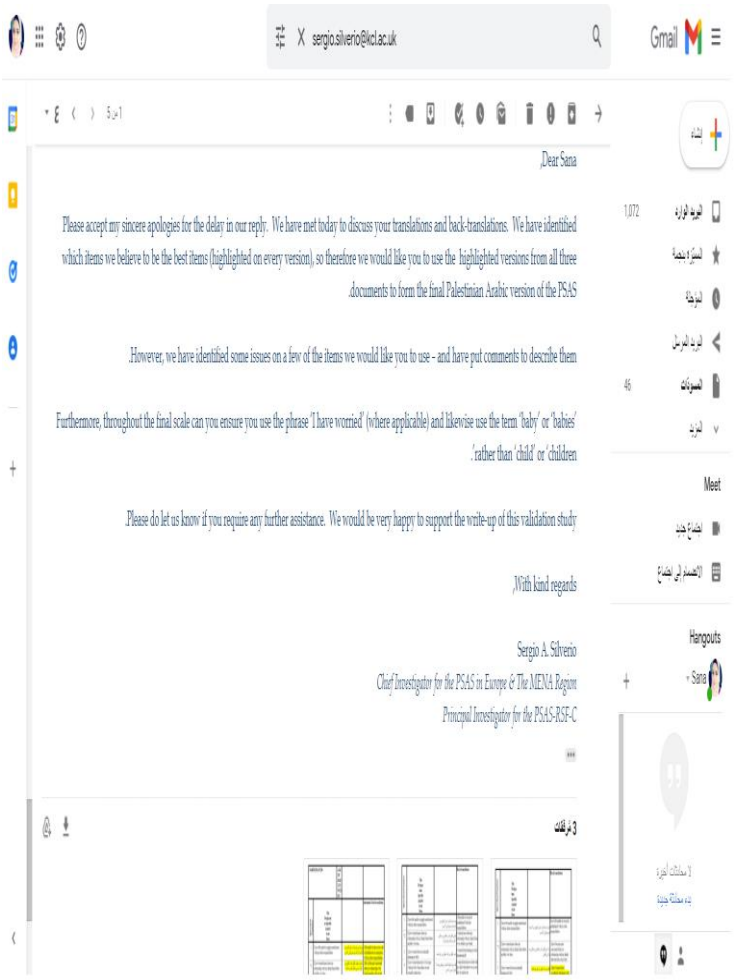
We therefore fully endorse the translation and validation of the PSAS as part of your project on the proviso that:

- You have three independent researchers who can translate the PSAS items, instructions for use, and scoring guidance from English into Palestinian Arabic.
- You have one independent researcher who can then back translate the best Palestinian Arabic version of each item back into English.
- You have the time, resource, and ability to recruit at least 510 women to validate the scale (including against other mental health scales in the local language).

att.
- Fallon et al., (2021) – PSAS – *Archives of Women's Mental Health*
- The PSAS-IT Translation Process Poster
- The blank Postpartum Specific Anxiety Scale Template
- The English Language PSAS

Appendix C

Approval of the best Arabic back translation of PSAS from PSAS Working group.



Appendix D

Permission letter from the Palestinian Ministry of Health.

State of Palestine
Ministry of Health
General Directorate of Education in
Health and Scientific Research

دولة فلسطين
وزارة الصحة
الإدارة العامة للتعليم الصحي
والبحث العلمي

Ref.: .....
Date:.....

الرقم: عس/١٠٦٨/٢٠٢١
التاريخ: ٢٠٢١/٨/١

الأخ مدير عام الادارة العامة للرعاية الصحية الاولية المحترم ،،،

تحية واحترام،،،

الموضوع: تسهيل مهمة بحث

يرجى تسهيل مهمة الطالبة: **سناء اسعد محمد سعدالدين، ماجستير تمريض الصحة النفسية المجتمعية، جامعة النجاح**، لاجراء بحث التخرج بعنوان:

"**انتشار اعراض قلق ما بعد الولادة والعوامل المصاحبة لها بين النساء الفلسطينيات**"

حيث سيقوم الطالبة بجمع معلومات من خلال استبانه من قبل المرضى (بعد اخذ موافقتهم)، مع العلم ان مشرف الدراسة: د. جمال قدومي ود. محمد مرعي، وذلك في:

- **عيادات الرعاية في مديريات الصحة في: نابلس – سلفيت .**

على ان يتم الالتزام بجميع تعليمات واجراءات الوقاية والسلامة الصادرة عن وزارة الصحة بخصوص جائحة كورونا، وتحت طائلة المسؤولية.

مع الاحترام،،،

د. عبد الله القواسمي
مدير التعليم الصحي والبحث العلمي

Appendix E

Consent form.

نموذج موافقة على المشاركة في بحث

عنوان الدراسة: انتشار أعراض قلق ما بعد الولادة والعوامل المصاحبة لها بين النساء الفلسطينيات".

اسم الباحث: سناء أسعد سعدالدين

اسم المشرف: د. محمد مرعي / د. جمال قدومي

عزيزيي المشاركة:

هذه الدراسة هي عبارة عن بحث ماجستير في الصحة النفسية المجتمعية، بكلية الدراسات العليا في جامعة النجاح الوطنية باعتبارها متطلب للتخرج والحصول على درجة الماجستير، وتم اختيارك بناءً على مطابقتك لشروط العينة.

تهدف هذه الدراسة إلى تحديد مدى انتشار أعراض قلق ما بعد الولادة والعوامل المصاحبة لها بين النساء الفلسطينيات في محافظتي نابلس وسلفيت. كل المعلومات المأخوذة ستكون لغرض البحث العلمي فقط. يحق لك الرفض أو التوقف عن المشاركة في البحث في أي وقت. مع العلم أن هذه المعلومات ستكون سرية ولا تتضمن أسماء المشاركين، ولن يتم استخدام البيانات إلا في أغراض البحث العلمي فقط.

لذا أرجو منك الإجابة على أسئلة هذا الاستبيان بعناية واهتمام وذلك للحصول على نتائج دقيقة وواقعية.

طريقة التواصل مع الباحث:

إذا كانت لديك أي سؤال عن الدراسة، يمكنك التواصل مع الباحثة من خلال:

هاتف رقم (0598775906) أو عبر البريد الإلكتروني: sana.abood92@gmail.com

لقد حصلت على شرح مفصل عن الدراسة وأهدافها وإجراءاتها، ومنافعها وعن الحرية الكاملة في المشاركة. وأفهم كل المعلومات وحصلت على إجابات عن كل أسئلتي.

أوافق على أن أشارك في هذه الدراسة بطواعية وبدون أي نوع من الاجبار أو الضغط.

أعلم ان بإمكاني التوقف عن المشاركة في أي وقت.

توقيع المشترك: .....

التاريخ: .....

توقيع الباحث: .....

أشكر لك حسن تعاونك.

Appendix F

Administered questionnaire. English Form

An-Najah National University

Faculty of Graduate Studies

Prevalence and associated factors of post-partum anxiety symptoms among Palestinian women

Prepared by:

Sana SaadAdeen

Supervised by:

Dr. Mohammed Marie

Dr. Jamal Qaddumi

Sociodemographic data.

Name: ……

❖ **Age:**

 18-25 years old.

 26-32 years old.

 33-39 years old.

 Forty years and more.

❖ **Level of education:**

 Less than Tawjihi.

 Tawjihi.

 Diploma.

 Bachelors.

 Higher than bachelors.

❖ **Marital status:**

 Married.

 Divorce.

 Widow.

❖ **Place of residency:**

 City.

 Village.

 Camp.

❖ **Family Income:**

 Less than 1500 shekels.

- From 1500 to 3000 shekels.
- More than 3000 shekels.

❖ **Employment status:**

- Employed.
- Unemployed.

Health history.

❖ **Suffering from any medical diseases**

- Yes.
- No.

If yes, specify: .....

❖ **Having family history of previous psychiatric or mental disorder.**

- Yes.
- No.

❖ **If yes, specify:** .....

Childbirth experiences.

❖ **Age of baby……**

❖ **Was intended/planned pregnancy?**

- Yes.
- No.

❖ **Number of children including this baby……..**

❖ **Suffering from any complications during delivery.**

- Yes.
- No.

If yes, specify.....

❖ **Type of delivery**

 Normal birth

 Cesarean section

❖ **Received postpartum follow up at your local clinic**

 Yes.

 No.

❖ **Current baby gender:**

 Male.

 Female.

 Unknown.

❖ **Satisfying with the sex of the baby**

 Yes

 No

❖ **Feeding type**

 Breastfeeding

 Artificial

 Mixed

❖ **Feeding difficulties**

 Yes

 No

Emotional support

❖ **Husband support you psychologically during postpartum period**

□ Yes.

□ No.

❖ **Anyone (other than your husband) supports you psychologically during postpartum period**

□ Yes.

□ No.

If the answer is yes, specify (mother - sister - brother - friend - others): .....……..……

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 7 DAYS, not just how you feel today. As this is a reflection of the past seven days, you may want to repeat this scale again to track any changes in your frequency of symptoms. 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.	I have felt unable to juggle motherhood with my other responsibilities.				
*2.	I have worried more about my relationship with my family than before my baby was born.				
3.	I have worried about accidentally harming my baby.				
4.	I have worried about how I will cope with my baby when others are not around to support me.				
5.	I have felt that I do not get enough support.				
6.	I have been less able to concentrate on simple tasks than before my baby was born.				
7.	I have felt that I should not need help to look after my baby.				
8.	I have felt frightened when my baby is not with me.				
9.	I have worried I will not know what to do when my baby cries.				
*10.	I have worried more about my relationship with my partner than before my baby was born.				
11.	I have worried that my baby feels more content in someone else's care				
*12.	I have felt isolated from my family and friends				
13.	I have worried about my baby's weight.				
14.	I have worried about getting my baby into a routine.				
15.	I have worried that I will become too ill to care for my baby.				
16.	I have worried about my baby being accidentally harmed by someone or something.				

17.	I have felt unconfident or incapable of meeting my baby's basic care needs.				
18.	I have worried about being unable to settle my baby.				
19.	I have felt a greater need to do things in a certain way or order than before my baby was born.				
20.	I have had negative thoughts about my relationship with my baby.				
*21.	I have worried more about my relationship with my friends than before my baby was born.				
22.	I have thought of ways to avoid exposing my baby to germs				
23.	I have worried that my baby is less content than other babies.				
24.	I have felt that other mothers are coping with their babies better than me.				
25.	I have felt that I am not the parent I want to be.				
26.	I have worried more about completing household chores than before my baby was born.				
27.	I have not taken part in an everyday activity with my baby because I fear they may come to harm.				
28	I have worried about my baby's milk intake.				
29.	I have felt that I have had less control over my day than before my baby was born.				
30.	I have worried more about my finances than before my baby was born.				
31.	I have worried about my baby's health even after reassurance from others.				
32	I have felt that when I do get help it is not beneficial.				
33.	I have worried that my baby will stop breathing while sleeping.				
34.	I have used the internet for reassurance about my baby's health.				
35.	I have worried about leaving my baby in a childcare setting.				

36.	I have felt that my baby would be better cared for by someone else.				
37.	I have worried that I am not going to get enough sleep.				
38.	I have felt that motherhood is much harder than I expected.				
39.	I have worried that my baby is picking up on my anxieties.				
40.	I have worried about the bond that I have with my baby.				
41.	I have worried about the length of time that my baby sleeps.				
*42.	I have worried about returning to work.				
43.	I have worried more about my appearance than before my baby was born.				
44.	I have had difficulty sleeping even when I have had the chance to.				
45.	I have worried that other people think that my parenting skills are inadequate.				
*46.	I have worried that my partner finds me less attractive than before my baby was born.				
47.	I have worried that my baby is not developing as quickly as other babies				
*48.	I have felt resentment towards my partner.				
49.	I have worried about the way that I feed my baby.				
50.	I have repeatedly checked on my sleeping baby.				
51.	I have felt tired even after a good amount of rest.				
- END -		**SCORE: _____ / 204**			

Appendix G

Administered questionnaire. Arabic Form

جامعة النجاح الوطنية

كلية الدراسات العليا

ماجستير الصحة النفسية المجتمعية

<u>استبانة بعنوان:</u>

انتشار أعراض قلق ما بعد الولادة والعوامل المصاحبة لها بين النساء الفلسطينيات.

إعداد:

سناء سعد الدين

إشراف:

الدكتور محمد مرعي

الدكتورجمال القدومي

البيانات الاجتماعية والديموغرافية.

- ❖ **العمر:**
  - 18 – 25 سنة.
  - 26 - 32 سنة.
  - 33 - 39 سنة.
  - 40 سنة فأكثر.
- ❖ **مستوى التعليم:**
  - أقل من التوجيهي.
  - التوجيهي.
  - شهادة دبلوم.
  - البكالوريوس.
  - أعلى من البكالوريوس.
- ❖ **الحالة الزوجية:**
  - متزوجة.
  - طلاق.
  - أرملة.
- ❖ **مكان الاقامة:**
  - مدينة.
  - قرية.
  - مخيم.
- ❖ **دخل العائلة:**
  - اقل من 1500 شيكل.
  - من 1500 إلى 3000 شيكل.

- أكثر من 3000 شيكل.

❖ **العمل:**

- أعمل.
- لا أعمل.

<u>التاريخ الصحي.</u>

❖ **هل تعاني من أي أمراض طبية**

- نعم.
- لا.

إذا كانت الإجابة نعم، حددي: .....

❖ **هل يوجد تاريخ سابق في الاضطرابات النفسية أو العقلية لأفراد العائلة.**

- نعم.
- لا.

إذا كانت الإجابة نعم، حددي: .....

<u>خصائص الولادة.</u>

❖ **عمر المولود الحالي.....**

❖ **هل كان الحمل بالمولود الحالي مخطط له؟**

- نعم.
- لا.

❖ **عدد الأطفال مع المولود الحالي.....**

❖ **حدوث مضاعفات أثناء الولادة**

- نعم.
- لا.

إذا كانت الإجابة نعم، حددي: .....

- ❖ **نوع الولادة**

- ☐ ولادة طبيعية
- ☐ عملية قيصري

- ❖ **تلقيت رعاية ما بعد الولادة في العيادة الصحية.**

- ☐ نعم.
- ☐ لا.

- ❖ **جنس المولود الحالي:**

- ☐ ذكر.
- ☐ أنثى.

- ❖ **وجود رضا عن جنس المولود الحالي:**

- ☐ نعم.
- ☐ لا.

- ❖ **نوع الرضاعة**

- ☐ طبيعية
- ☐ صناعية
- ☐ مختلطة

- ❖ **وجود صعوبات أثناء الرضاعة**

- ☐ نعم
- ☐ لا

<u>الدعم النفسي أثناء الولادة</u>

- ❖ **هل يدعمك زوجك نفسيا خلال فترة ما بعد الولادة؟**

- ☐ نعم.

□ لا.

❖ **هل يقوم أحد (غير زوجك) بدعمك نفسياً خلال فترة ما بعد الولادة؟**

□ نعم.

□ لا.

إذا كانت الإجابة نعم، فحددي (الأم - الأخت - الأخ - صديقة - غيرهم):

.....

مقياس القلق النوعي بعد الولادة [PSAS]

توجيهات:

نحن مهتمون بما تشعرين به منذ أن أنجبت طفلك. الرجاء اختيار الإجابة الأقرب لما شعرت به في الأيام السبعة الماضية ، وليس فقط ما تشعرين به اليوم. يتكون هذا الاستبيان من 51 مجموعة من البيانات. يرجى قراءة كل مجموعة من البيانات بعناية.

ملاحظة: بعض البنود لا تنطبق على جميع الأمهات. تم تمييز هذه العناصر بعلامة النجمة (*) ، على سبيل المثال: [* 2.] إذا كانت هذه العناصر المميزة لا تنطبق عليك أو على ظروفك ، فالرجاء ترك رد العنصر فارغًا. يرجى أخذ وقتك وقراءة كل سؤال بعناية ، واختيار أنسب إجابة لكل سؤال من الخيارات التالية:

= 1 لا إطلاقاً

= 2 أحياناً

= 3 غالباً

= 4 تقريبا دائما

المصدر (فالون وآخرون ، 2016)

معرف المشاركة:	عمر المولود الحالي بالأسابيع:	التاريخ:			
رقم السؤال	مقياس القلق النوعي بعد الولادة	لا إطلاقاً	أحياناً	غالباً	تقريباً دائماً
1.	شعرت بعدم القدرة على التوفيق بين الأمومة ومسؤولياتي الأخرى.				
2.*	ازداد لدي القلق بشأن علاقتي مع عائلتي بعد ولادة طفلي.				
3.	قلقت من إيذائي طفلي عن طريق الخطأ.				
4.	قلقت حول كيفية التعامل مع طفلي عندما لا يكون الآخرون موجودين لدعمي.				
5.	شعرت بأني لا أحصل على الدعم الكافي.				
6.	أصبحت أقل قدرة على التركيز في المهام البسيطة بعد ولادة طفلي				
7.	شعرت بأني لست بحاجة إلى مساعدة لرعاية طفلي .				
8.	شعرت بالخوف عندما لا يكون طفلي معي.				
9.	قلقت من عدم فهمي لسبب بكاء طفلي.				
10*	قلقت بشأن علاقتي مع زوجي بعد ولادة طفلي.				
11.	قلقت من شعور طفلي بمزيد من الرضا عند رعايته من شخص غيري.				
12*	شعرت بالعزلة عن عائلتي وأصدقائي بعد الولادة .				
13.	قلقت بشأن وزن طفلي .				
14.	قلقت بشأن تعويد طفلي على الروتين اليومي (المهام مثل النوم، التغذية.. الخ).				
15.	قلقت من أن أمرض وأعجز عن رعاية طفلي.				
16.	قلقت من تعرض طفلي للأذى غير المقصود من قبل شيء أو شخص ما.				
17.	شعرت بعدم الثقة أو عدم القدرة على تلبية الاحتياجات الأساسية لطفلي .				
18.	قلقت بشأن عدم تمكني من تهدئة طفلي.				
19.	شعرت بالحاجة إلى اتباع ترتيب معين للأشياء أكثر مما كنت عليه قبل ولادة طفلي.				
20.	كانت لدي أفكار سلبية حول علاقتي مع طفلي .				
21*	قلقت بشأن علاقتي مع أصدقائي بعد ولادة طفلي.				
22.	فكرت بطرق تجنب طفلي من الإصابة بالجراثيم .				
23.	قلقت من شعور طفلي بعدم الرضا .				
24.	شعرت أن الأمهات الأخريات يتعاملن مع أطفالهن أفضل مني.				
25.	شعرت أني لست الأم التي أريدها أن تكون.				
26.	قلقت كثيراً بشأن إكمال الأعمال المنزلية بعد ولادة طفلي.				
27.	لم أشارك في أي نشاط يومي مع طفلي لأني أخشى بأن يضره ذلك النشاط.				
28	قلقت بشأن كمية الحليب التي يأخذها طفلي .				
29.	شعرت بأني أقل إدارة ليومي مما كنت عليه قبل ولادة طفلي.				
30.	قلقت يشأن المصروفات أكثر مما كنت عليه قبل ولادة طفلي.				
31.	قلقت بشأن صحة طفلي حتى بعد طمأنة الآخرين.				
32	شعرت بأن مساعدة الآخرين لي ليست مفيدة.				
33.	قلقت من تعرض طفلي للاختناق أثناء النوم.				

34.	استخدمت الانترنت للاطمئنان على صحة طفلي.				
35.	قلقت بشأن ترك طفلي في مركز لرعاية الأطفال .				
36.	شعرت بأن طفلي سيحصل على رعاية أفضل من قبل شخص آخر.				
37.	قلقت من عدم الحصول على قسط مناسب من النوم .				
38.	شعرت أن الأمومة أصعب بكثير مما كنت أتوقع.				
39.	قلقت من أن تنتقل عدوى القلق لطفلي .				
40.	قلقت بشأن الرابطة التي تربطني بطفلي.				
41.	قلقت بشأن طول الفترة التي ينام فيها طفلي .				
42*	قلقت بشأن العودة إلى العمل.				
43.	قلقت بشأن مظهري أكثر مما كنت عليه قبل ولادة طفلي.				
44.	واجهت صعوبة في النوم حتى عندما أتيحت لي الفرصة بذلك.				
45.	قلقت من أن يعتقد الآخرون أن مهاراتي في الأمومة غير كافية.				
46*	قلقت بشأن أن يجدني زوجي أقل جاذبية مما كنت عليه قبل ولادة طفلي .				
47.	شعرت بأن طفلي لا يتطور بسرعة مثل الأطفال الآخرين .				
48*	شعرت بالاستياء (بالغضب) تجاه زوجي.				
49.	قلقت بشأن الطريقة التي أطعم بها طفلي.				
50.	قمت بفحص طفلي خلال نومه بشكل متكرر .				
51.	شعرت بالتعب حتى بعد أخذ قسط جيد من الراحة.				
	- النهاية -			**مجموع النقاط ____ /204**	

Appendix H

Tables

Table 11

Association between PPA and Health history Variables.

		PSAS							
		No		**Yes**		**Total**			
Variable		**N**	**%**	**N**	**%**	**n**	**%**	X^2	***P* value**
Suffering from any medical diseases.	No	420	93.1	54	91.5	474	92.9	0.204	0.652
	Yes	31	6.9	5	8.5	36	7.1		
Family history of psychiatric or mental disorder.	No	439	97.3	59	100	498	97.6	1.60	0.205
	Yes	12	2.7	0	0	12	2.4		

Table 12

Association between PPA and Childbirth experiences Variables.

		PSAS							
		No		**Yes**		**Total**			
Variable.		**N**	**%**	**N**	**%**	**n**	**%**	X^2	***P* value**
Intended/planned pregnancy.	No	161	35.7	27	45.8	188	36.9	2.27	0.132
	Yes	290	64.3	32	54.2	322	63.1		
Number of children including this baby.	0	0	0	0	0	0	0	10.46	0.164
	1-3	347	77	49	83	396	77.6		
	4-5	81	17.9	4	6.8	85	16.7		
	≥ 6	23	5.1	6	10.2	29	5.7		
Complications during delivery.	No	416	92.2	54	91.5	470	92.2	0.037	0.848
	Yes	35	7.8	5	8.5	40	7.8		
Type of delivery:	Normal	271	60.1	36	61	307	60.2	0.019	0.891
	CS	180	39.9	23	39	203	39.8		
Postpartum follow up at local clinic.	No	160	35.5	25	42.4	185	36.3	1.07	0.300
	Yes	291	64.5	34	57.6	325	63.7		
Current baby gender:	Female.	232	51.4	34	57.6	266	52.2	0.800	0.371
	Male	219	48.6	25	42.4	244	47.8		
Satisfying with the sex of the baby.	No	1	0.2	1	1.7	2	0.4	2.89	0.089
	Yes	450	99.8	58	98.3	508	99.6		
Feeding type:	Breastfeed	205	45.5	21	35.6	226	44.3	2.79	0.248
	Artificial	179	39.7	30	50.8	209	41		
	Mixed	67	14.9	8	13.6	75	14.7		
Feeding difficulties.	No	410	90.9	45	76.3	455	89.2	11.6	0.001
	Yes	41	9.1	14	23.7	55	10.8		
		Mean		**Mean**		**Mean**		**MWU**	***P* value**
Baby age.		10.86		11.59		10.7		12321.0	0.350

CS: cesarean section

Table 13

Association between PPA and Emotional support Variables.

		PSAS							
		No		Yes		Total			
Variable		**N**	**%**	**n**	**%**	**N**	**%**	X^2	***P* value**
Husband support:	No	30	6.7	13	22	43	8.4	15.99	<.001
	Yes	421	93.3	46	78	467	91.6		
Other than husband supports:	No	54	12	19	32.2	73	14.3	17.40	<.001
	Yes	397	88	40	67.8	437	85.7		

Table 14

The logistic regression model of the predictors of the postpartum anxiety.

	B	**S.E.**	**Wald**	**Sig.**	**Exp(B)**	**95% C.I. for EXP(B)**	
						Lower	Upper
Geographical area.	-0.389	0.311	1.56	0.211	0.678	0.368	1.246
Age group.	-0.472	0.268	3.11	0.078	0.624	0.369	1.054
Educational level.	0.131	0.153	0.736	0.391	1.14	0.845	1.538
Place of residence.	0.101	0.159	0.406	0.524	1.10	0.810	1.512
Family income.	-0.360	0.255	1.99	0.158	0.698	0.423	1.150
Work.	-0.195	0.462	0.178	0.673	0.823	0.333	2.035
Do you currently suffer from any medical diseases?	0.406	0.548	0.551	0.458	1.50	0.513	4.391
Do you have a previous history of mental disorders?	0.765	1.30	0.346	0.557	2.14	0.168	27.55
Newborn's current age in weeks:	0.015	0.021	0.509	0.476	1.01	0.975	1.057
Planned pregnancy.	-0.299	0.312	0.919	0.338	0.741	0.402	1.367
Children number.	0.056	0.140	0.162	0.687	1.05	0.805	1.390
Delivery complication.	0.106	0.563	0.035	0.851	1.11	0.369	3.354
Delivery type.	-0.003	0.325	0.000	0.992	0.997	0.527	1.885
Postnatal care.	0.094	0.318	0.088	0.767	1.09	0.589	2.050
Baby gender.	-0.359	0.307	1.36	0.243	0.699	0.383	1.276
Baby gender acceptance.	-0.498	1.56	0.102	0.750	0.608	0.029	12.95
Baby feeding.	0.101	0.216	0.220	0.639	1.10	0.725	1.689
Feeding difficulty.	0.921	0.385	5.72	0.017	2.51	1.181	5.342
Husband support.	-1.12	0.448	6.26	0.012	0.326	0.135	0.784
Other support.	-1.08	0.371	8.47	0.004	0.339	0.164	0.703
Constant.	3.05	2.09	2.11	0.146	21.16		

Appendix I

Figure

Figure I 1

Conceptual and Opertation Definition of Terms

Variable	Conceptual definition	Operational definition	
Sociodemographic:			
Mother age:	A period of person life, calculated by years from birth, often defined by a certain degree or stage of physical or mental development and including legal capacity and responsibility.	This type of question is answered by circle within an age group.	○ 18_25 years. ○ 26_32 years. ○ 33_39 years. ○ 40 years and more.
Level of education:	Level of education that a person has successfully completed.	This type of question is answered by choosing the last educational certificate obtained.	○ Less than Tawjihi. ○ Tawjihi. ○ Diploma. ○ Bachelors. ○ Higher than bachelors.
Marital status:	The state of being single, married, divorced, or widowed.	This type of question is answered by choosing the appropriate marital status.	○ Married. ○ Divorced ○ widowed.
Place of residency:	It refers to the civil division of the country in which an individual resides.	This type of question is answered by choosing the place where she stays.	○ City. ○ Village. ○ Camp.
Family income:	It is the amount of money that the family earns or receives monthly.	This type of question is answered by choosing between three options.	○ Less than 1500 NIS. ○ 1500-300 NIS. ○ More than 3000 NIS.
Employment status:	Current work or career.	This type of question is answered by choosing the status.	○ Employed. ○ Unemployed.
Health history:	If the participant / family previously diagnosed with chronic health problems by a specialist.	This type of question is answered by choosing yes or no.	Suffering from any medical diseases. ○ Yes. ○ No. Having family history of previous psychiatric or mental disorder. ○ Yes. ○ No.
Child birth experiences:			
Age of baby:	The present newborn's age refers	This type of question is	Age of new baby per

	to the number of weeks following birth.	answered by writing the age of baby in weeks.	weeks…….
Planned pregnancy:	Thinking about what it means to have a baby and making decisions with her partner.	This type of question is answered by choosing yes or no.	Was intended/planned pregnancy? ○ Yes. ○ No.
Number of children:	The number of children in families aged below 18 years.	This type of question is answered by choosing the number of children she has.	Number of children including this baby: ○ 1-2. ○ 2-3. ○ 4-5. ○ 6 and more.
Complication during delivery:	Complications can occur during any part of the labor process.	This type of question is answered by choosing yes or no.	Suffering from any complications during delivery. ○ Yes. ○ No.
Type of delivery:	Vaginal birth is the birth of offspring in mammals (babies in humans) through the vagina (also called the "birth canal"). A cesarean section is the use of surgery for childbirth and is recommended when vaginal delivery is a risk to the mother or the baby.	This type of question is answered by choosing the type one.	Type of delivery: ○ Normal birth. ○ Cesarean section.
Postnatal follow up:	The postpartum follow-up 4 to 6 weeks after childbirth for simple cases is recommended by the American College of Obstetricians and Gynecologists.	This type of question is answered by choosing yes or no.	Received postpartum follow up at your local clinic: ○ Yes. ○ No.
Sex of baby:	Gender or sex refers to the characteristics of male or female.	This type of question is answered by choosing the gender of current baby.	Current baby gender: ○ Male. ○ Female.
Satisfying of baby's sex:	If the mother is feeling satisfied with the present baby's sex.	This type of question is answered by choosing Yes or No.	Satisfying with the sex of the baby ○ Yes. ○ No.
Feeding type:	Infant feeding may consist of direct breastfeeding (DBF), formula feeding (FF) or Both.	This type of question is answered by choosing the type of feeding.	Feeding type: ○ Breastfeeding. ○ Artificial. ○ Mixed.
Feeding difficulties:	If there is a problem with the practice of feeding a newborn e.g., Poor sucking.	This type of question is answered by choosing Yes or No.	Are there any difficulties during feeding? ○ Yes. ○ No.
Emotional Support:	The definition of supportive person is someone who provides emotional help and encouragement. It can be	This type of question is answered by choosing yes or no.	Husband support you psychologically during postpartum period:

	physically supportive, or emotionally supportive like a loving family or solid network of friends.		○ Yes. ○ No. Anyone (other than your husband) supports you psychologically during postpartum period: ○ Yes. ○ No.
Prevalence of postpartum anxiety:	The postpartum period begins directly after childbirth as the mother's body, involving uterus size and hormone levels returns to a non-pregnant status.	Postpartum Specific Anxiety Scale (PSAS) a 51-item tool which evaluates a wide range of anxieties experienced by women throughout the initial 6 months postpartum. At the ideal cut-off score of 112, clinical diagnosis of anxiety.	

جـامعـــة النجاح الوطنية
كليـــة الدراســـات العليـــا

انتشار أعراض قلق ما بعد الولادة والعوامل المصاحبة لها بين النساء الفلسطينيات

إعداد
سناء أسعد سعد الدين

إشراف
د. محمد مرعي
د. جمال القدومي

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

2022

انتشار أعراض قلق ما بعد الولادة والعوامل المصاحبة لها بين النساء الفلسطينيات

إعداد

سناء أسعد سعد الدين

إشراف

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د. جمال القدومي

الملخص

الخلفية: تمثل فترة النفاس إحدى أهم مراحل الحياة التي تتطلب دقة الكشف والعلاج من الضائقة النفسية. تشير التقديرات إلى أن أكثر من 20٪ من النساء سوف يصبن باضطراب نفسي أثناء الحمل أو حتى عام واحد بعد الولادة، والتي يعد القلق والاكتئاب من أكثر الأمراض شيوعًا في هذه الفترة. لم يتم دراسة انتشار وعوامل الخطر لقلق ما بعد الولادة بشكل جيد من تلك الخاصة باكتئاب ما بعد الولادة. يمكن أن تؤدي المعاناة من قلق ما بعد الولادة إلى زيادة الضغط على الأمهات وتعطيل العلاقة بين الأم والرضيع. كما أن النساء المصابات بقلق ما بعد الولادة أقل عرضة لطلب الرعاية والمساعدة من النساء المصابات باكتئاب ما بعد الولادة.

الهدف: هدفت هذه الدراسة إلى تحديد مدى انتشار أعراض قلق ما بعد الولادة والعوامل المصاحبة لها بين النساء الفلسطينيات.

منهجية البحث: تم تصميم هذا البحث واستخدام دراسة كمية، وصفية ومقطعية. أكمل ما مجموعه 510 من الأمهات ما بعد الولادة من عمر (0–6) شهور الاستبيان المصمم للدراسة وتم استخدام مقياس القلق النوعي بعد الولادة كأداة قياس في تحديد مستويات القلق لدى الأمهات المشاركات.

النتائج: أظهرت النتائج أن غالبية المشاركات حصلن على التعليم الجامعي (درجة البكالوريوس 58٪)، في حين أن نسبة صغيرة منهن لم يكملن تعليمهن بعد الثانوية. أعلى نسبة للمشاركات (42٪) تتراوح أعمارهن بين 26–32 سنة. يعيش ما يقارب نصف المشاركات (51٪) في المدينة. النسبة الأكبر (54٪) منهن يتراوح دخلهن بين 1500–3000 شيكل شهرياً، وكان (81٪) من المشاركات بدون عمل أو ربة منزل. على الرغم من أن 63٪ من

المشاركات خططن للحمل إلا أن 36.9٪ لم يقمن بذلك. كان لدى غالبية النساء المشاركات في الدراسة من 1 إلى 3 أطفال. على الرغم من أن 92٪ من المشاركات لم يبلغن عن أي مضاعفات بعد الولادة وأن 60٪ كانت ولادتهن طبيعية، إلا أن 36.3٪ منهن لم يتابعن في مراكز الرعاية الصحية لفترة ما بعد الولادة. أظهرت النتائج أن غالبية الأمهات راضيات عن جنس المولود (99٪). على الرغم من أن غالبية النساء (89%) لم يكن لديهن صعوبة في الرضاعة الطبيعية، إلا أن 44٪ فقط من المشاركات أفدن بأن نوع الرضاعة التي يتبعنها كانت رضاعة طبيعية. فيما يتعلق بالدعم، أظهرت النتائج أن 91.6٪ حصلن على دعم من أزواجهن، بينما حصلت 85.7٪ من المشاركات على دعم من أفراد عائلة آخرين مثل الأم. كان إجمالي عدد النساء اللاتي شاركن في الدراسة واللاتي يعانين من قلق ما بعد الولادة 59 من أصل 510 بنسبة انتشار (11.6٪)، في حين أن الباقي (88.4٪) لم يعانين من قلق ما بعد الولادة حسب النتيجة الإجمالية لمقياس القلق النوعي ما بعد الولادة. على الرغم من وجود تباين طفيف في نسب القلق وفقاً للمتغيرات الديموغرافية وخصائص النساء في فترة ما بعد الولادة، إلا أن هذه الاختلافات ليس لها دلالة إحصائية. ولكن بينت النتائج وجود ثلاثة مؤشرات ذات دلالة إحصائية لقلق ما بعد الولادة لدى النساء المشاركات: صعوبات الرضاعة، توفر الدعم من الزوج، وتوفر الدعم من الآخرين.

الخلاصة: أظهرت النتائج وجود تباين طفيف في نسب القلق وفقاً للمتغيرات الديموغرافية وخصائص النساء في فترة ما بعد الولادة، ولكن هذه الاختلافات ليس لها دلالة إحصائية. فيما بينت النتائج وجود ثلاثة مؤشرات ذات دلالة إحصائية ترتبط بقلق ما بعد الولادة لدى النساء المشاركات وهي: صعوبات الرضاعة، توفر الدعم من الزوج وتوفر الدعم من الآخرين. من الممكن أن تتفاقم هذه المشكلة بسبب الحاجة الملحة إلى معالجة رعاية الصحة النفسية في فلسطين. لذلك يعد الحصول على معرفة أفضل بقلق ما بعد الولادة أمرًا بالغ الأهمية لتطوير استراتيجيات وقاية وعلاج أكثر فعالية.

الكلمات المفتاحية: الانتشار، القلق ما بعد الولادة، عوامل الخطر، الصحة النفسية، فلسطين.