

Postpartum Depression And Associated Factors Among Jordanian Mothers In Royal Medical Services

Mrs. Nadia Mohammad Wanes Alshraideh

RN, Masters in Critical Care Nursing, Higher Diploma in Midwifery, Princess Muna College of Nursing/ Mutah University, Nadia_shriedeh@mutah.edu.jo

ABSTRACT

Background: Globally, PPD impacts approximately 10–20% of postpartum women, significantly affecting mothers and infants. Symptoms such as guilt, concentration difficulties, mood fluctuations, and sleep issues can hinder infant development. Key contributing factors include socio-demographic and health-related issues.

Objectives: this study aims to assess the prevalence PPD and identify associated factors that contribute to the development of PPD among Jordanian mothers.

Methodology: this is a cross-sectional study that will be conducted in the Royal Medical Services- Al-Hussein Hospital, recruiting 150 Jordanian mothers by systematic random sampling. Data regarding demographic variables, obstetric and pregnancy-related history, mental health history, and depressive symptoms in the postpartum period using the Edinburgh Postnatal Depression Scale (EPDS).

Results: results indicate a disparity in women's perceptions of their postpartum depression prevalence. Ten participants (7.6%) were unable to laugh or see the bright side of things, and 12 participants (8%) had difficulty finding enjoyment in things. Seven participants (4.7%) unnecessarily criticized themselves when things went wrong. Sixty-one participants (40.7%) were anxious and preoccupied for no apparent reason. there is an inverse correlation between level of family support and Prevalence of Postpartum Depression among Jordanian mothers. Also, there is a difference in Prevalence of Postpartum Depression among Jordanian mothers according to their characteristic (Age, number of children, Complications during the most recent pregnancy, the access to maternal and child healthcare services and Family history of postpartum depression)

Keywords: postpartum depression, EPDS, Jordan, mothers.

Introduction

Due to adjusting to their new roles and obligations, mothers face certain physical and psychological changes throughout the postpartum phase including mental problems such as depression, anxiety, or psychosis, ranging from moderate to severe (Murphey et al., 2017; Heinisch et al., 2019). These disorders can take a milder form, including transient emotional lability and mild to moderate depressive symptoms referred to as “baby blues”, or take a more serious form named “Postpartum depression” (American Psychiatric Association, 2013; Parsons et al., 2012; Slomian et al., 2019). Postpartum depression (PPD) goes beyond the transient symptoms in postpartum blues, and can cause significant depressive symptoms, which could reach the point of hurting the baby or self-harm and suicide if left without proper treatment (American Psychiatric Association, 2013; Parsons et al., 2012; Slomian et al., 2019). These disorders typically occur within 4–6 weeks after childbirth, it can develop at any time within 1 year after birth, and it can last for years (Alshikh et al., 2021).

Postpartum depression is diagnosed when some signs are present in the mother, including feelings of guilt, difficulty in concentrating, changes in appetite, mood instability, serious concerns about the baby, sleep disturbances and disorders, fear of injury, and loss of interest (Ap Association. (2000). Diagnostic and statistical manual of mental disorders (DSM-IV-TR), text revision; Aswathi et al., 2015; Norhayati et al., 2015). Additionally, they include irritability, crying spells, anxiety, feelings of isolation, mental lability, and thoughts of self-harm and/or harm to the infant and even suicidal ideation (American Psychiatric Association, 2013).

In Jordan and other countries Research shows that postpartum depression is associated with multiple factors, including socio-demographic, psychosocial, health-related, and obstetric factors. Regarding obstetric factors, including the mode of delivery, the presence of a complicated delivery (Alzahrani et al., 2022). Socio-demographic factors include maternal age (specifically young age), employment status, educational status, unplanned pregnancies, financial challenges, and marital conflicts (Al Dasoqi et al., 2023; Fraihat et al., 2024; Shorey

et al., 2018; Taybeh, 2022; Wang et al., 2021). Furthermore, psychosocial factors include lack of social or emotional support, anxiety about motherhood, and negative perspectives about pregnancy (Fraihat et al., 2024; Taybeh, 2022). Health-related factors include depression during pregnancy, antenatal health problems, and breastfeeding difficulties (Al Dasoqi et al., 2023; Taybeh, 2022).

In the Middle East, Alshikh et al. (2021) conducted a meta-analysis that found an overall pooled estimate of postpartum depression prevalence of 27%. Although the prevalence rate differed slightly across Arab countries, for example, 34.1% in Jordan, 32.1% in Lebanon, and 30.5% in Iraq, the numbers are close, which denotes the close conditions Arab women might face (Al Dasoqi et al., 2023; El Kahwaji et al., 2025; Gidey et al., 2025; Naweed & Alhouli, 2025; Sadiq et al., 2025). A cohort study conducted by Froeliger et al. (2025) in France showed that 16.4% of mother have postpartum depression.

This study aims to determine the level and severity of postpartum depression among a sample of Jordanian women and to identify the most prominent factors related to personality characteristics and health status that affect the level of postpartum depression in these women. by employing improved methodology and using Edinburgh Postnatal Depression Scale (EDPS), which has proven efficacy in multiple languages, including Arabic (Al-abri et al., 2025; Alshikh et al., 2021).

Problem statement

Postpartum depression is a serious public health concern affecting infant's development, maternal psychological well-being, and mother-infant bonding. Globally, PPD impacts approximately 10–20% of postpartum women. Postpartum depression remains under-treated due to limited use of validated screening tools and small-scale studies with methodological limitations, even though it has high prevalence in Jordan and other countries (Zagzoog et al., 2025; El Kahwaji et al. 2025; Alwan & Al-jubouri, 2025; Zhu et al., 2025; Mohammed et al., 2025).

Several studies have previously been conducted in Jordan (Al Dasoqi et al., 2023; Mohammad et al., 2018; Taybeh, 2022; Yoneda et al., 2021). Those studies either focused on the refugee population or employed convenience sampling, employed small sample size. Consequently, there is limited evidence from Jordanian population regarding postpartum depression prevalence and symptom severity as assessed using postpartum-related tools.

Hence, the problem of the current study is to answer the following main question: What is the estimated prevalence of postpartum depression and its associated factors among Jordanian mothers?

Study Objectives

- Determining the prevalence level of the Prevalence of Postpartum Depression among Jordanian mothers.
- Determine the level of support do mothers received after childbirth from their husbands, family, and friends.
- Determine if there is a difference in Prevalence of Postpartum Depression among Jordanian mothers according to their demographic and Pregnancy-related variables.

Postpartum depression concept

Postpartum depression is considered an acute psychological condition that affects women, and is characterized by special features, predominantly persistent sadness, anxiety, and an inability to perform daily routine activities. It may lead to negative consequences and other health complications for the mother and child. (Khamidullina et al., 2025).

When a woman suffers from PPD, she experiences poor psychological well-being, reduced maternal functioning and quality of life, as well as impaired bonding with infants and care giving (Slomian et al., 2019; Stewart & Vigod, 2016). This condition also affects infants by impairing their emotional and behavioral development, delaying cognitive, emotional, and language development, and weakening mother-infant interaction (Kingston et al., 2012; Slomian et al., 2019; Stein et al., 2018). Globally, PPD represents a significant health burden. Reports differ on its prevalence depending on the setting, demographic factors, and the assessment approach (screening tools vs diagnostic interviews) (Gavin et al., 2005; Parsons et al., 2012; Slomian et al., 2019; Woody et al.,

2017). Therefore, PPD is a social health problem across cultures, irrespective of cultural identities and beliefs, and is a serious health problem given the extent to which it affects.

Studies predict that without preventive measures by 2030, depression might become one of the leading causes of death globally (Mathers & Loncar, 2006). Despite this, PPD gets the least attention among the types of depression today (Alshikh et al., 2021).

The prevalence of postpartum depression is influenced by numerous factors, such as the following: (a) child-related factors (such as unplanned/unwanted pregnancies, challenges in breastfeeding, and the baby's sex. (b) medical factors, such as poor sleep, alcohol/nicotine abuse, and delivery and pregnancy complications (c) socio-economic factors (such as low level of education, poverty, and unemployment (d) a history of depression in the patient (e) psycho-social factors including hard life, a lack of social support, and marital issues (Roomruangwong & Epperson, 2017; Bei et al., 2015; Rai et al., 2015; Kendall-Tackett, 2015).

Methodology:

This study adopted a descriptive-analytical approach. This approach aimed to determine the level of perceptions of participating women regarding postpartum depression, identify differences in these perceptions based on demographic, personality, and pregnancy- and childbirth-related variables, and interpret the results in light of previous studies and the theoretical framework. The quantitative section used structured questionnaires to assess the overall perception of postpartum depression among a number of women, thereby determining the extent to which they experienced it.

Data collection procedure

Data collected through structured, face-to-face interviews with postpartum mothers recruited from two points using Google Forms software: (1) the postnatal wards for women who remain hospitalized after delivery, and (2) obstetrics and gynecology outpatient clinics for women attending routine postpartum follow-up visits. A trained team of data collectors approached eligible mothers, introduce the study, obtain verbal and digital informed consent. To standardize recruitment flow, a systematic random sampling method applied using a fixed interval of 2: the first eligible mother encountered during each recruitment session invited to participate, then the next two eligible mothers skipped, and the subsequent eligible mother invited, continuing in this sequence throughout the data-collection period (i.e., 1st, skip 2, recruit 1, skip 2...). All data collectors will undergo standardized training on study objectives, participant approach, informed consent procedures, questionnaire administration, and handling participant questions or distress.

Study tool

The questionnaire used to collect data which consists of three components. First, demographic and socioeconomic characteristics collected (e.g., age, residence, education, employment, income/household indicators as appropriate). Second, obstetric and pregnancy-related history recorded, including gravidity/parity, gestational age and mode of delivery, pregnancy planning status, antenatal care, and complications during the current pregnancy, as well as relevant prior pregnancy outcomes. Third, Depressive symptoms in the postpartum period assessed using the Edinburgh Postnatal Depression Scale (EPDS) tool. This tool includes 10-item Postnatal Depression Scale used to screen women for symptoms of emotional distress. Responses are scored 0, 1, 2, and 3 based on the seriousness of the symptom. Mothers scoring above 11 are likely to be suffering from depression and should seek medical attention (Cox et al., 1987).

Ethical consideration

The ethical approval from the Jordanian Royal Medical Services- Al-Hussein Hospital obtained. Digital and verbal informed consent from the mothers acquired prior to data collection. The consent form will include useful details regarding the purpose, importance, and tools of the research as well as the participant's freedom to discontinue participation at any time without incurring any fees. Confidentiality and anonymity maintained during information processing and data collection. All collected data saved in a password-secured document on the researcher's computer.

Study Sample and Eligibility criteria

Systematic random sampling used to select mothers from Jordanian Medical Services- Al-Hussein Hospital in Amman, Jordan. Using G*Power. Study participants recruited according to the inclusion and exclusion criteria. The study will include Jordanian mothers aged 18 years or older, mothers who are in the postpartum period (Up to 2 months after delivery) (Alzahrani et al., 2022), mothers attending maternal and child clinics at Jordanian Royal Medical Services Al-Hussein Hospital, able to understand Arabic, and providing verbal and digital informed consent prior to data collection. Mothers with severe medical or obstetric complications, whose their psychological outcome may reflect trauma of the severe event rather than the pregnancy itself (Watt et al., 2002), including those requiring intensive care admission after delivery, mothers with infants with severe congenital anomalies (They have higher risk of psychiatric disorders), and mothers who experienced neonatal death excluded (Stein et al., 2018; Bauer et al., 2025). Additionally, mothers from other nationalities or who have not been living in Jordan for the period of pregnancy excluded from the study. Therefore, data were collected from 150 participants representing the study sample.

Socio-demographic characteristics

Table (1): study sample according to personal and Socio demographics characteristics (N=150)

Var.	Category	N	Percentage%
Age			
	Less than 30 years	41	27.3%
	30-less than 35 year	54	36%
	35-less than 40 year	27	18%
	40 years and more	28	18.7%
Marital status			
	Married	143	95.3%
	Divorced	5	3.3%
	Widowed	2	1.3%
Educational level			
	School education	22	14.7%
	Diploma	29	19.3%
	Bachelor degree	84	56%
	High education	15	10%
Monthly income			
	Less than 500 JD	72	48%
	500-less than 1000 JD	50	33.3%
	1000- less than 2000 JD	27	18%
	2000 JD and more	1	0.7%
Having a job			
	Yes	83	55.3%
	No	67	44.7%
Place of residence			
	Urban area	110	73.3%
	Rural area	40	26.7%
Number of children			
	1	38	25.3%
	2-3	86	57.3%
	More than 3	26	17.4%

The results in Table (1) showed that (30- less than 35) years was the largest representing 38%, followed by (Less than 30 years) of 28%, while the (35-less than 40 year) age was 26%. Also, the result show that married women representing 95.3% of the sample size, while divorced women constituted 3.3% and widowed women 1.3%. The results also showed that (56%) of the participants in the study sample held a Bachelor's degree, followed by Diploma degree with (19.3%) of the study sample. About the Monthly household income, the results indicated that about half of the study sample (48%) has a (Less than 500 JD). About (55.3%) of the study sample have a job and (73.3%) lived urban area. And (57.3%) have (2-3) children.

Obstetric characteristics

Table (2): study sample according to Obstetric characteristics (N=150)

Var. / Category	N	Percentage%
Gestational age at delivery (in weeks)		
Less than 40 weeks	56	37.3%
40 weeks and more	94	62.7%
Mode of delivery		
Vaginal delivery	82	54.7%
Cesarean section	68	45.3%
Complications during your most recent pregnancy		
Yes	62	41.3%
No	88	58.7%
Planning of the most recent pregnancy		
Yes	90	60%
No	60	40%
Gender of the newborn		
Male	85	56.7%
Female	65	43.3%
The access to maternal and child healthcare services		
Yes	124	82.7%
No	26	17.3%

Results in Table (2) showed that (62.7%) had a gestational age at delivery 40 weeks and more. According to mode of delivery, (54.7%) of the study sample their birth was vaginal delivery, while (45.3%) was Cesarean section. The results also showed that (41.3%) of the study sample experienced complications during their most recent pregnancy, while (58.7%) of the study sample did not experience any significant complications. Most of the sample (60%) reported that there was planning for the last pregnancy. While most of the sample (82.7%) received maternal and child health care services

Previous psychiatric characteristics

Table (3): study sample according to Previous psychiatric characteristics (N=150)

Var. / Category	N	Percentage%
History of chronic medical conditions		
Yes	27	18%
No	123	82%

History of mental health conditions

Yes	17	11.3%
No	133	88.7%

Family history of postpartum depression

Yes	3	2%
No	147	98%

Results in Table (3) showed that regarding to a history of chronic medical conditions and History of mental health conditions; only (18%) reported having a history of chronic medical conditions; in contrast, only (11.3%) reported having a history of mental health conditions. Finally, only (2%) say that they have family history of postpartum depression.

Perceived psycho-social support characteristics

Table (4): Perceived Psycho-social Support characteristics of women during the postpartum period, according to the MSS scale (N=150)

No.	Items	N	Max.	Mean	Std.	%
1	I have good friends who support me	150	4	3.40	0.732	85%
2	My family is always there for me	150	4	3.47	0.856	86.75%
3	My husband/partner helps me a lot	150	4	2.01	1.009	50.25%
4	There is no conflict between me and my husband/partner	150	4	2.73	1.231	68.25%
5	I feel that my husband/partner not controls me	150	4	3.04	1.435	76%
6	I feel loved by my husband/partner	150	4	3.55	0.782	88.75%
Total		150	4	3.03		76%

Results in Table (4) showed that the level of support do mothers receive after childbirth from their husbands, family, with mean of (3.03) and percentage of (76%). Also results showed that paragraph number (6) which is "I feel loved by my husband/partner" came in the first (88.75%), followed by the paragraph No. (2) Which is "My family is always there for me" which came in the second with (86.75%), while paragraph No. (3) which is "My husband/partner helps me a lot" came in the last rank with percentage of (50.25%). This result can be explained by the relatively high level of support mothers receive after childbirth from their husbands, family, and friends. This reflects a supportive social environment that helps alleviate the psychological and physical burdens of this sensitive period. The support provided may include assistance with newborn care, emotional support, and help with household and family responsibilities. This helps mothers adapt better to the new changes and may have a positive impact on reducing their risk of postpartum depression. However, while this percentage is positive, it may also indicate a gap for some mothers who do not receive sufficient support. This necessitates raising awareness about the importance of supporting mothers after childbirth to ensure their health, especially their mental well-being.

3.2. Responses of women about the level of the Postpartum Depression

Table (5): EPDS (Edinburgh postnatal depression scale) responses of women (N=150)

Var. / Category	Frequency	Percentage%
I was able to laugh and see the bright side of things		
mean (SD) 0.89 (0.458)		
Yes, most of the time	38	25.4%
Yes, sometimes	100	66.6%
Seldom	2	1.3%
Absolutely not	10	6.7%
I looked forward to things with enjoyment		
mean (SD) 1.29 (0.739)		
Yes, most of the time	37	24.7%
Yes, sometimes	45	30%
Seldom	56	37.3%
Absolutely not	12	8%
I blamed myself unnecessarily when things went wrong.		
mean (SD) 1.20 (0.843)		
Yes, most of the time	7	4.7%
Yes, sometimes	50	33.3%
Seldom	59	39.3%
Absolutely not	34	22.7%
I was worried and preoccupied for no good reason.		
mean (SD) 2.02 (0.897)		
Yes, most of the time	61	40.7%
Yes, sometimes	33	22%
Seldom	55	36.7%
Absolutely not	1	0.7%
I felt fear and panic for no important reason.		
mean (SD) 1.22 (0.818)		
Yes, most of the time	6	4%
Yes, sometimes	52	34.7%
Seldom	61	40.6%
Absolutely not	31	20.7%
I had too much work to do all of it.		
mean (SD) 1.44 (0.629)		
Yes, most of the time	7	4.7%
Yes, sometimes	57	38%
Seldom	82	54.6%
Absolutely not	4	2.7%
I was so unhappy that I had difficulty sleeping.		
mean (SD) 1.74 (0.958)		
Yes, most of the time	31	20.7%
Yes, sometimes	72	48%
Seldom	24	16%
Absolutely not	23	15.3%
I felt unhappy or miserable		
mean (SD) 1.34 (0.817)		
Yes, most of the time	6	4%
Yes, sometimes	66	44%
Seldom	51	34%
Absolutely not	27	18%

I was unhappy and felt so much pain that I cried.

mean (SD) 1.42 (1.06)

Yes, most of the time	32	21.3%
Yes, sometimes	33	22%
Seldom	51	34%
Absolutely not	34	22.7%

The thought of harming myself crossed my mind

mean (SD) 0.03 (0.370)

Yes, most of the time	0	0%
Yes, sometimes	1	0.7%
Seldom	3	2%
Absolutely not	146	97.3%

Results in Table (5) indicate a disparity in women's perceptions of their postpartum depression prevalence. Ten participants (7.6%) were unable to laugh or see the bright side of things, and 12 participants (8%) had difficulty finding enjoyment in things. Seven participants (4.7%) unnecessarily criticized themselves when things went wrong. Sixty-one participants (40.7%) were anxious and preoccupied for no apparent reason. Thirty-one participants (20.7%) were so unhappy and distressed that they cried. However, none of the participants considered self-harm. The mean time spent laughing and seeing the bright side was 0.89 (standard deviation 0.458), while the mean time spent finding enjoyment in things was 1.29 (standard deviation 0.739). The average scores for needless self-blame, feeling anxious or stressed for no good reason, feeling scared or panicky for no good reason, feeling overwhelmed with work, having trouble sleeping, and feeling unhappy or miserable were, respectively: 1.20 (SD 0.843), 2.02 (SD 0.897), 1.22 (SD 0.818), 1.44 (SD 0.629), 1.74 (SD 0.958), and 1.34 (SD 0.817). The Edinburgh Postpartum Depression Scale in Table 5 shows that 25.4% of women felt as much as they could laugh all the time.

The results in the table above show that a number of women experience symptoms of postpartum depression, which, while not mild, have not yet reached its most severe stages. The variation in the severity of postpartum depression reflects multiple factors affecting women, such as hormonal changes, social pressures, and family support. The most prominent of these factors will be discussed in the following findings. At the same time, the importance of early detection and appropriate psychological intervention is highlighted, particularly in moderate cases that may worsen if not adequately treated. Furthermore, immediate intervention is crucial for those suffering from severe postpartum depression.

This result is consistent with the result reached by Tesfaye et al. (2023) study, which indicated that postpartum depression is very common among women, and that there is a variation in the appearance of depressive symptoms among women according to a number of personal characteristics and some variables related to childbirth and mental health, which requires periodic examinations, regular follow-up and the provision of mental health care for women during the postpartum period.

personal and demographic characteristics associated with postpartum depression

Table (6): One Way ANOVA test for the differences in the level of Prevalence of Postpartum Depression among Jordanian mothers according to their personal and demographic characteristics

Variable	Categories	number	Mean	Std. Deviation	F	Sig.
Age	Less than 30 years	41	10.83	5.77	4.622	0.004
	30-less than 35 year	54	11.39	5.29		
	35-less than 40 year	27	12.81	6.59		
	40 years and more	28	15.54	4.78		
	Married	143	12.27	5.75		

Marital status	Divorced	5	13.00	6.44	0.191	0.826
	Widowed	2	10.00	11.31		
	School education	22	14.86	3.09		
Highest level of education	Diploma	29	11.79	7.12	2.58	0.056
	Bachelor degree	84	12.20	5.94		
	High education	15	9.73	3.79		
Monthly household income	Less than 500 JD	72	12.69	6.12	1.34	0.265
	500-less than 1000 JD	50	12.26	4.75		
	1000- less than 2000 JD	27	11.52	6.50		
Having a job	2000 JD and more	1	2.00	---	2.56	0.112
	Yes	83	11.59	6.39		
	no	67	13.10	4.87		
Place of residence	Urban area	110	11.74	6.11	3.516	0.063
	Rural area	40	13.72	4.58		
	1	38	9.24	7.62		
Number of children	2-3	86	13.02	4.92	8.07	0.00
	More than 3	26	14.19	3.46		

Table (6) showed that there is a difference in Prevalence of Postpartum Depression among Jordanian mothers according to their demographic characteristic (Age) for the age group (40 years and more), based on the calculated (F) values of (4.622), and (Sig=0.004), which less than (0.05). This result showed that Women of this age may face greater health pressures related to pregnancy and late childbirth, such as an increased likelihood of physical complications, which may negatively affect their psychological state. In addition, the older mother may bear multiple family responsibilities, such as caring for other children or family members, which increases stress and tension levels. Also, the age gap between her and the newborn may affect the level of energy and ability to cope with the demands of daily care.

Also, the results presented in Table (6) show that there is a difference in Prevalence of Postpartum Depression among Jordanian mothers according to their demographic characteristic (Number of children) for the group of (More than 3) children, based on the calculated (F) values of (8.07), and (Sig=0.00). This result explained by the accumulation of daily burdens and responsibilities associated with caring for a large number of children. An increase in the number of children means an increase in physical and psychological demands, which raises levels of stress and tension. Also, the lack of time allocated for rest or self-care may contribute to the deterioration of the mother's psychological state. In addition, some mothers may feel chronic fatigue or a lack of social support, especially if the support network is limited, which increases the likelihood of them experiencing symptoms of postpartum depression.

In contrast, the results shown in the previous table indicate that there is no difference in Prevalence of Postpartum Depression among Jordanian mothers according to their demographic characteristic (Marital status, Highest level of education, Monthly household income, Having a job and Place of residence), based on the calculated (F) values of (0.191, 2.58, 1.34, 2.56, 3.516), respectively, and (Sig=0.826, 0.056, 0.265, 0.112, 0.063) respectively, which are greater than (0.05).

Accordingly, the answer of the third question is that there is a difference in Prevalence of Postpartum Depression among Jordanian mothers according to their (Age and Number of children). While there is a no difference in Prevalence of Postpartum Depression among Jordanian mothers according to their demographic characteristic (Marital status, Highest level of education, Monthly household income, Having a job and Place of residence).

Pregnancy-related variables associated with postpartum depression

Table (7): One Way ANOVA test for the differences in the level of Prevalence of Postpartum Depression among Jordanian mothers according to their Pregnancy-related variables

Var.	Categories	Number	Mean	Std. Deviation	F	Sig.
Gestational age at delivery (in weeks)	Less than 40 weeks	56	11.23	5.07	2.886	0.091
	40 weeks and more	94	12.88	6.12		
Mode of delivery	Vaginal delivery	82	13.00	4.73	2.937	0.089
	Cesarean section	68	11.38	6.79		
Complications during your most recent pregnancy	Yes	62	15.71	3.48	49.489	0.000
	No	88	9.84	5.87		
Anxiety during the most recent pregnancy	Yes	90	13.00	3.81	3.671	0.057
	No	60	11.17	7.79		
Gender of the newborn	Male	85	11.59	5.86	2.722	0.101
	Female	65	13.15	5.62		
The access to maternal and child healthcare services	Yes	124	11.29	5.92	23.377	0.000
	No	26	16.92	5.03		
Approximate weekly expenses for childcare	Less than 15 JD	28	11.32	1.17	2.298	0.080
	15- Less than 30 JD	58	11.17	0.79		
	30- Less than 50 JD	35	13.43	0.92		
	50 JD and more	29	13.96	0.89		
History of chronic medical conditions	Yes	27	12.15	4.60	0.014	0.907
	No	123	12.29	6.04		
History of mental health conditions	Yes	17	10.82	5.64	1.192	0.277
	No	133	12.45	5.80		
Personal history of postpartum depression	Yes	3	19.33	5.77	4.668	0.032
	No	147	12.12	5.72		

Table (8) showed that there is a difference in Prevalence of Postpartum Depression among Jordanian mothers according to their Pregnancy-related variables (Complications during the most recent pregnancy) for the Category (yes), based on the calculated (F) values of (49.489), and (Sig=0.000), This can be explained that experiencing complications during pregnancy can increase stress and anxiety levels in the mother, whether due to concerns about her own health or the health of the fetus, or as a result of the difficult physical and psychological experiences associated with these complications. The effects of this stress may persist after childbirth, making the mother more susceptible to depression. Furthermore, complications may be linked to more complicated births or the need for intensive medical care, which can exacerbate feelings of psychological distress and negatively impact postpartum recovery.

Also, the results presented in Table (8) show that there is a difference in Prevalence of Postpartum Depression among Jordanian mothers according to their Pregnancy-related variables (The access to maternal and child healthcare services) for the Category (No), based on the calculated (F) values of (23.377), and (Sig=0.000). This can be explained by the fact that the lack of availability or difficulty in accessing these services deprives the mother of the necessary medical and psychological support during pregnancy and postpartum, which increases her feelings of anxiety and insecurity. Also, the absence of regular health follow-up may exacerbate undiagnosed or untreated health problems, whether for the mother or the child, which negatively affects the mother's psychological state and

reduces her ability to adapt to new changes, thus increasing the likelihood of her experiencing postpartum depression.

Also, the results presented in Table (8) show that there is a difference in Prevalence of Postpartum Depression among Jordanian mothers according to their Pregnancy-related variables (Family history of postpartum depression) for the Category (Yes), based on the calculated (F) values of (4.668), and (Sig=0.032).

In contrast, the results shown in the previous table indicate that there is no difference in Prevalence of Postpartum Depression among Jordanian mothers according to their Pregnancy-related variables (Gestational age at delivery, Mode of delivery, Planning of the most recent pregnancy, Gender of the newborn, Approximate weekly expenses for childcare, History of chronic medical conditions, History of mental health) based on the calculated (F) values of (2.886, 2.937, 3.671, 2.722, 2.298, 0.014, 1.192), respectively, and (Sig=0.091, 0.089, 0.057, 0.101, 0.080, 0.907, 0.277) respectively, which are greater than (0.05).

Accordingly, the answer of the third question is that there is a difference in Prevalence of Postpartum Depression among Jordanian mothers according to their (Complications during the most recent pregnancy, the access to maternal and child healthcare services and Family history of postpartum depression). While there is a no difference in Prevalence of Postpartum Depression among Jordanian mothers according to their demographic characteristic (Gestational age at delivery, Mode of delivery, Planning of the most recent pregnancy, Gender of the newborn, Approximate weekly expenses for childcare, History of chronic medical conditions, History of mental health).

Conclusion

In light of the findings of the study on postpartum depression and its associated factors among Jordanian mothers at Al-Hussein Hospital, affiliated with the Royal Medical Services, it is clear that this problem represents a significant health and psychological challenge requiring greater attention from healthcare providers and policymakers. The results showed a substantial percentage of mothers suffering from varying degrees of depression, linked to several social and health factors that necessitate early intervention. Therefore, there is a clear need to strengthen postpartum mental health screening programs, provide psychological support and family counseling services within hospitals, and raise community awareness about the importance of maternal mental health. Adopting integrated preventive and therapeutic strategies will contribute to improving the quality of life for mothers and their families, and enhance the overall health of society.

References

- [1] Al Dasoqi, K. Y., Malak, M. Z., Alhadidi, M., Subih, M. M., & Safadi, R. (2023). Postpartum depression among first-time Jordanian mothers: Levels and associated factors. *Psychology, Health & Medicine*, 28(6), 1527–1539.
- [2] Al-abri, K., Sumri, H. A., Al-Azri, M., Yesodharan, D. K., & Al Kindi, R. (2025). Validation of the arabic version of the edinburgh postnatal depression scale for screening antenatal depression in Oman. *BMC Pregnancy and Childbirth*, 25(1), 677. <https://doi.org/10.1186/s12884-025-07793-9>
- [3] Alshikh A J H., Alkhatib, A., & Luo, J. (2021). Prevalence and risk factors of postpartum depression in the Middle East: A systematic review and meta-analysis. *BMC Pregnancy and Childbirth*, 21, 542. <https://doi.org/10.1186/s12884-021-04016-9>
- [4] Alwan, I. H., & Al-jubouri, S. M. (2025). Assessment of Postpartum Depression Among Women: Prevalence, Risk Factors, and Implications. *SHIFAA*, 2025, 14-23.
- [5] Alzahrani, J., Al-Ghamdi, S., Aldossari, K., Al-Ajmi, M., Al-Ajmi, D., Alanazi, F., Aldossary, A., & Alharbi, A. (2022). Postpartum Depression Prevalence and Associated Factors: An Observational Study in Saudi Arabia. *Medicina*, 58(11), 1595. <https://doi.org/10.3390/medicina58111595>
- [6] American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders (Fifth Edition)*. American Psychiatric Association. <https://doi.org/10.1176/appi.books.9780890425596>
- [7] Ap Association. (2000). *Diagnostic and statistical manual of mental disorders (DSM-IV-TR)*, text revision. (No Title).
- [8] Aswathi, A., Rajendiren, S., Nimesh, A., Philip, R. R., Kattimani, S., Jayalakshmi, D., ... & Dhiman, P. (2015). High serum testosterone levels during postpartum period are associated with postpartum depression. *Asian journal of psychiatry*, 17, 85-88.

- [9] Bauer, A. E., Jaholkowski, P., Lu, Y., Guintivano, J., Hannigan, L. J., Corfield, E. C., Tesli, M., Andreassen, O. A., Li, Y., Reichborn-Kjennerud, T., Sullivan, P. F., Meltzer-Brody, S., Havdahl, A., & Ask, H. (2025). Identification and validation of postpartum depression subtypes: a population-based cohort study. *EClinicalMedicine*, 89, 103540. <https://doi.org/10.1016/j.eclinm.2025.103540>
- [10] Bei, B., Coo, S., & Trinder, J. (2015). Sleep and mood during pregnancy and the postpartum period. *Sleep Medicine Clinics*, 10(1), 25-33.
- [11] Cox, J. L., Holden, J. M., & Sagovsky, R. (1987). Detection of postnatal depression: Development of the 10-item Edinburgh Postnatal Depression Scale. *The British Journal of Psychiatry*, 150(6), 782-786. <https://doi.org/10.1192/bjp.150.6.782>
- [12] El Kahwaji, C., Barakat, E., Fekih-Romdhane, F., Akkari, C., Barakat, S., & Hallit, S. (2025). Prevalence, correlates of postpartum depression during the COVID-19 pandemic; and validation of the arabic edinburgh postnatal depression scale among Lebanese women. *BMC Psychology*, 13(1), 91. <https://doi.org/10.1186/s40359-025-02410-y>
- [13] Fraihat, A., Abdelfattah, L., Hajeer, L., Noaman, D., Alfaleh, A., & Thekrallah, F. (2024). The Relationship between the Intrapartum Experience and the Risk of Postpartum Depression among Jordanian Women: A Cross-Sectional Study. *Journal of Mother and Child*, 28(1), 102-112. <https://doi.org/10.34763/jmotherandchild.20242801.d-24-00036>
- [14] Froeliger, A., Deneux-Tharaux, C., Loussert, L., Bouchghoul, H., Sutter-Dallay, A. L., Madar, H. & Darsonval, A. (2025). Prevalence and risk factors for postpartum depression 2 months after cesarean delivery: a prospective multicenter study. *American Journal of Obstetrics and Gynecology*, 232(5), 491-e1.
- [15] Gavin, N. I., Gaynes, B. N., Lohr, K. N., Meltzer-Brody, S., Gartlehner, G., & Swinson, T. (2005). Perinatal depression: A systematic review of prevalence and incidence. *Obstetrics and Gynecology*, 106(5 Pt 1), 1071-1083. <https://doi.org/10.1097/01.AOG.0000183597.31630.db>
- [16] Gidey, S., Tefera, F., Ababiya, T., Fissehatsion, F., Tekla, B., Zergaw, R., Urgecha, E., Habtegiorgis, Y., Bate, Z., & Seifu, A. (2025). Prevalence and Associated Factors of Postpartum Depression Among Postpartum Mothers in Addis Ababa, Ethiopia. *American Journal of Psychiatry and Neuroscience*, 13(2), 50-60. <https://doi.org/10.11648/j.ajpn.20251302.12>
- [17] Heinisch, C., Galeris, M.-G., Gabler, S., Simen, S., Junge-Hoffmeister, J., Föbel, J., & Spangler, G. (2019). Mothers with postpartum psychiatric disorders: Proposal for an adapted method to assess maternal sensitivity in interaction with the child. *Frontiers in Psychiatry*, 10, 471. <https://doi.org/10.3389/fpsy.2019.00471>.
- [18] Khamidullina Z, Marat A, Muratbekova S, Mustapayeva NM, Chingayeva GN, Shepetov AM, Ibatova SS, Terzic M, Aimagambetova G. (2025). Postpartum Depression Epidemiology, Risk Factors, Diagnosis, and Management: An Appraisal of the Current Knowledge and Future Perspectives. *J Clin Med*;14(7):2418. doi: 10.3390/jcm14072418. PMID: 40217868; PMCID: PMC11989329.
- [19] Kendall-Tackett, K. (2015). The new paradigm for depression in new mothers: current findings on maternal depression, breastfeeding and resiliency across the lifespan. *Breastfeeding Review*, 23(1), 7-10.
- [20] Kingston, D., Tough, S., & Whitfield, H. (2012). Prenatal and postpartum maternal psychological distress and infant development: A systematic review. *Child Psychiatry & Human Development*, 43(5), 683-714.
- [21] Mathers, C. D., & Loncar, D. (2006). Projections of global mortality and burden of disease from 2002 to 2030. *PLoS Medicine*, 3(11), e442. <https://doi.org/10.1371/journal.pmed.0030442>
- [22] Mohammad, K. I., Abu Awad, D., Creedy, D. K., & Gamble, J. (2018). Postpartum depression symptoms among Syrian refugee women living in Jordan. *Research in Nursing & Health*, 41(6), 519-524. <https://doi.org/10.1002/nur.21919>
- [23] Mohammed, N., Alkali, M., Adamu, A., Mohammed, A., & Moi, I. M. (2025). Assessing Postpartum depression in Bauchi State-Nigeria: A study on the prevalence and risk factors in primary healthcare settings. *Journal of Community Medicine and Primary Health Care*, 37(1), 102-116.
- [24] Murphey, C., Carter, P., Price, L. R., Champion, J. D., & Nichols, F. (2017). Psychological distress in healthy low-risk first-time mothers during the postpartum period: An exploratory study. *Nursing Research and Practice*, 2017, Article 8415083. <https://doi.org/10.1155/2017/8415083>
- [25] Naweed, A., & Alhouli, A. (2025). Prevalence and Risk Factors of Postpartum Depression: A Single-Center Study.

Journal of Health, Wellness, and Community Research, e42–e42.

- [26] Norhayati, M. N., Hazlina, N. N., Asrenee, A. R., & Emilin, W. W. (2015). Magnitude and risk factors for postpartum symptoms: a literature review. *Journal of affective Disorders*, 175, 34-52.
- [27] Parsons, C. E., Young, K. S., Rochat, T. J., Kringelbach, M. L., & Stein, A. (2012). Postnatal depression and its effects on child development: A review of evidence from low- and middle-income countries. *British Medical Bulletin*, 101, 57–
- 79. <https://doi.org/10.1093/bmb/ldr047>
- [28] Rai, S., Pathak, A., & Sharma, I. (2015). Postpartum psychiatric disorders: Early diagnosis and management. *Indian journal of psychiatry*, 57(Suppl 2), S216-S221.
- [29] Roomruangwong, C., & Epperson, C. N. (2017). Perinatal depression in Asian women: prevalence, associated factors, and cultural aspects. *Asian Biomedicine*, 5(2), 179-193.
- [30] Sadiq, M., A. Salih, A., F. Jamil, N., T. Khalifa, A., K. Lafta, M., & S. Abd, M. (2025). Prevalence of postpartum depression and associated factors among women attending primary health care centers in Baghdad. *Eurasian Journal of Medicine and Oncology*, 9(2), 181. <https://doi.org/10.36922/ejmo.8528>
- [31] Shorey, S., Chee, C. Y. I., Ng, E. D., Chan, Y. H., Tam, W. W. S., & Chong, Y. S. (2018). Prevalence and incidence of postpartum depression among healthy mothers: A systematic review and meta-analysis. *Journal of Psychiatric Research*, 104, 235–248. <https://doi.org/10.1016/j.jpsychires.2018.08.001>
- [32] Slomian, J., Honvo, G., Emonts, P., Reginster, J.-Y., & Bruyère, O. (2019). Consequences of maternal postpartum depression: A systematic review of maternal and infant outcomes. *Women's Health*, 15, 1745506519844044. <https://doi.org/10.1177/1745506519844044>
- [33] Stein, A., Netsi, E., Lawrence, P. J., Granger, C., Kempton, C., Craske, M. G., Nickless, A., Mollison, J., Stewart, D. A., Rapa, E., West, V., Scerif, G., Cooper, P. J., & Murray, L. (2018). Mitigating the effect of persistent postnatal depression on child outcomes through an intervention to treat depression and improve parenting: A randomised controlled trial. *The Lancet Psychiatry*, 5(2), 134–144. [https://doi.org/10.1016/S2215-0366\(18\)30006-3](https://doi.org/10.1016/S2215-0366(18)30006-3)
- [34] Stewart, D. E., & Vigod, S. (2016). Postpartum Depression. *New England Journal of Medicine*, 375(22), 2177–2186. <https://doi.org/10.1056/NEJMcp1607649>
- [35] Sun, Y., Fu, Z., Bo, Q., Mao, Z., Ma, X., & Wang, C. (2020). The reliability and validity of PHQ 9 in patients with major depressive disorder in a psychiatric hospital. *BMC Psychiatry*, 20, Article 474. <https://doi.org/10.1186/s12888-020-02885-6>
- [36] Taybeh, E. O. (2022). A focus on postpartum depression among Jordanian mothers. *International Journal of Social Psychiatry*, 68(2), 403–410. <https://doi.org/10.1177/00207640211000100>
- [37] Tesfaye W.; Ashine B.; Tezera H. and Asefa T. (2023). Postpartum depression and associated factor among mothers attending public health centers of Yeka sub city, addis ababa Ethiopia, *Heliyon* 9, e20952.
- [38] Wang, Z., Liu, J., Shuai, H., Cai, Z., Fu, X., Liu, Y., Xiao, X., Zhang, W., Krabbendam, E., Liu, S., Liu, Z., Li, Z., & Yang, B. X. (2021). Mapping global prevalence of depression among postpartum women. *Translational Psychiatry*, 11(1), 543. <https://doi.org/10.1038/s41398-021-01663-6>
- [39] Watt, S., Sword, W., Krueger, P., Sheehan, D., & Ontario Mother & Infant Survey (2002). A cross-sectional study of early identification of postpartum depression: implications for primary care providers from The Ontario Mother & Infant Survey. *BMC family practice*, 3, 5. <https://doi.org/10.1186/1471-2296-3-5>
- [40] Woody, C. A., Ferrari, A. J., Siskind, D. J., Whiteford, H. A., & Harris, M. G. (2017). A systematic review and meta-regression of the prevalence and incidence of perinatal depression. *Journal of Affective Disorders*, 219, 86–92. <https://doi.org/10.1016/j.jad.2017.05.003>
- [41] Yoneda, K., Hababeh, M., Kitamura, A., Seita, A., & Kamiya, Y. (2021). Prevalence and characteristics of Palestine refugee mothers at risk of postpartum depression in Amman, Jordan: A cross-sectional study. *Lancet (London, England)*, 398 Suppl 1, S28. [https://doi.org/10.1016/S0140-6736\(21\)01514-2](https://doi.org/10.1016/S0140-6736(21)01514-2)
- [42] Zagzoog, R., Alotaibi, F. A., & ZAGZOOG, R. (2025). Prevalence of Postpartum Depression and Its Correlation With Breastfeeding in Makkah, Saudi Arabia: A Cross-Sectional Study. *Cureus*, 17(6).
- [43] Zhu, Y., Yin, X., & Gong, Y. (2025). Prevalence and risk factors of postpartum depressive symptoms in Central China: A longitudinal, real-world study. *Journal of Affective Disorders*, 1202