

The Incidence of Postpartum Depression and Its Medico-Legal Aspects among the Outpatients of Ain Shams University Hospitals, Department of Obstetrics and Gynecology

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Abstract

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Background: After childbirth, postpartum depression (PPD) is a common mental health disorder that affects women and is characterized by enduring feelings of sorrow, worry, and exhaustion. Unlike transient "baby blues," PPD symptoms are more severe, lasting longer and requiring clinical intervention. PPD can emerge at any point within the first year postpartum, posing risks to both maternal well-being and infant development if untreated.

Aim: This prospective cohort study aims to assess the incidence of PPD and its medico-legal aspects among outpatients at Ain Shams University Hospitals, Department of Obstetrics and Gynecology.

Method: A prospective cohort design, this study examines PPD development over time and identifies associated risk factors within a specific population.

Results: Findings reveal significant associations between PPD risk and maternal age, marital status, spousal relationship quality, planned pregnancy, obstetric history, and newborn health. Older maternal age, divorced or widowed status, poor spousal relationships, unplanned pregnancy, multiple children, labor complications, and newborn health issues all increase vulnerability to PPD.

Conclusion: These results underscore the necessity of targeted screening and intervention strategies, particularly for high-risk groups. Addressing these risk factors through comprehensive obstetric care and psychosocial support can effectively mitigate the impact of PPD on maternal and infant well-being. Further research is warranted to develop tailored prevention and management strategies for PPD in diverse populations.

Key words

Postpartum Depression; Maternal Mental Health; Obstetrics; Medico-Legal Aspects; Ain Shams University Hospitals

Introduction

Postpartum Depression (PPD) is a significant mental health issue that impacts women following the birth of a child. This condition is marked by ongoing feelings of sadness, anxiety, and exhaustion, which can hinder a mother's capacity to care for her infant and manage everyday responsibilities (Afshari et al., 2020).

PPD symptoms are more intense and last longer than the usual postpartum blues, necessitating clinical intervention. PPD can develop anytime within the first year postpartum and has the potential to impact both the mother's well-being and the development of the infant if left untreated (Elrassas et al., 2022).

PPD involves severe symptoms including intense sadness, hopelessness, fatigue, lack of interest in the baby, change in the sleep patterns, and sometimes thoughts of harming oneself or the baby. These symptoms persist for weeks to months and significantly impair the mother's ability to function, often requiring therapy as it may develop to postpartum psychosis that is the most severe postpartum mood disorder and is considered a medical emergency

requiring immediate hospitalization and treatment (Afshari et al., 2020).

One of the most serious manifestations of PPD is the potential for a mother to harm herself, commit suicide, even harm her baby or kill him, thus forensic medicine plays an important role in evaluating such cases struggling with PPD that may have contributed to criminal behavior (Duke et al., 2019).

In forensic medicine, it is complex to determine the relationship between PPD and criminal behavior as some law experts may argue that some mental diseases should mitigate criminal responsibility and that the harm caused is deliberate although it is influenced by mental illness (Hollander et al., 2015).

Forensic experts are tasked to assess the mental state of the mother who committed the crime to determine whether she understands the nature of her actions or she is legally insane and was influenced by the mental illness during the time of the crime (Cohen et al., 2022).

The relation between PPD and crime raises an alarm denoting the necessity that the health care providers must ensure an adequate mental and medical

care to women during pregnancy and after birth stage, including screening for depressive symptoms and early intervention when needed (Behl et al., 2023).

In Egypt, PPD is a critical issue, influenced by various socio-cultural and economic challenges. Cultural expectations and traditional norms regarding motherhood and family roles further increase the pressure on women, potentially exacerbating symptoms of PPD. Additionally, limited access to mental health services and the stigma associated with mental health issues hinder proper diagnosis and treatment (Stewart et al., 2016).

Healthcare providers diagnose Postpartum Depression (PPD) according to the standards specified in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5). Important diagnostic criteria include the presence of symptoms for a minimum of two weeks, occurring almost daily (Peng et al., 2021).

Early diagnosis of PPD allows healthcare providers to offer appropriate support and resources, including therapy, support groups, and educational materials and significantly improve the prognosis for both the mother and the child. Furthermore, early diagnosis can prevent the progression of PPD to more severe forms of depression (Slomian et al., 2019).

Aim of the Study

This study aims to measure the incidence of PPD among the outpatient clinics of Ain Shams University Hospitals, Department of Obstetrics and Gynecology for assessment and to identify the associated risk factors and the medico legal aspects related to the mother in this group of women.

Patients and Methods

Methodology:

Study Design: This study is a prospective cohort study designed to assess the incidence of Postpartum Depression (PPD) and its medico-legal aspects among outpatients at Ain Shams University Hospitals, Department of Obstetrics and Gynecology. The prospective cohort design allows for the examination of PPD development over time and the identification of associated risk factors in a defined population.

Study Population: The study was conducted with participants from the outpatient clinics of the Department of Obstetrics and Gynecology at Ain Shams University Hospitals. The participants were Arabic-speaking women who can read and write in Arabic. All participants were fully informed about the study's methodology and purpose, and informed consents were obtained.

Screening and Assessment: Data were collected in two phases. Initially, at 36 to 40 weeks of gestation, participants were screened for depressive symptoms using the Hospital Anxiety and Depression Scale (HADS) (Cox et al., 1987). This initial assessment established a baseline for depressive symptomatology. Postpartum assessment took place 6–8 weeks after delivery, where the Edinburgh Postnatal Depression Scale (EPDS) was administered to evaluate for PPD (Zigmond and Snaith, 1983). The EPDS is a validated tool specifically designed for detecting PPD and

provides reliable measures of depressive symptoms in the postpartum period.

Inclusion and Exclusion Criteria: Participants were selected based on specific inclusion and exclusion criteria to ensure a homogeneous study population. The inclusion criteria are pregnant women between 36 and 40 weeks of gestation who can speak, read, and write Arabic and are attending the outpatient clinics at Ain Shams University Hospitals, Department of Obstetrics and Gynecology. The exclusion criteria include women with multiple fetal pregnancies, a current or lifetime history of schizophrenia, major chronic diseases (e.g., diabetes, hypertension), or obstetric and pregnancy complications such as severe preeclampsia, eclampsia, placenta previa, placental abruption, or major postpartum infection. These exclusions are necessary to enhance the reliability of the PPD assessment by eliminating confounding medical conditions.

Sampling Method: Purposive sampling was employed to select women between 36 and 40 weeks of gestation who meet the inclusion and exclusion criteria.

Sample Size: The sample size was determined using power analysis and sample size software (PPSS15, Version 15.0.10), with a confidence level of 95% and a margin of error of ± 0.05 . Based on previous study results indicating an incidence of maternal postpartum depression of 6.7% (Liu et al., 2017) and accounting for a 20% dropout rate, a sample size of at least 150 pregnant women were sufficient to achieve the study's objectives.

Screening for Postpartum Depression and Evaluating Risk Factors: An Arabic version of the Edinburgh Postnatal Depression Scale (EPDS) was used to identify symptoms of postpartum depression (PPD). The EPDS is the most widely used and validated tool for screening PPD, showing sensitivity rates between 75% and 100% and specificity rates from 76% to 97% among English-speaking groups. This scale consists of 10 questions aimed at evaluating the emotions experienced by women over the past seven days. Although a score of 10 is generally considered the threshold for probable depression in English-speaking populations, scores exceeding 12 have been confirmed as the most effective cutoff for probable depression within Arabic-speaking cultures.

To determine potential risk factors for postpartum depression (PPD), several variables were evaluated, including age, education level, occupation, length of marriage, quality of the relationship with the husband, number of children, sex of the newborn, smoking habits, pregnancy planning, obstetric complications, fear related to labor, complications during labor, issues with the newborn, type of delivery, location of birth, anesthesia type, and infant feeding practices. These factors were selected based on their possible influence on the onset of PPD, as highlighted in the current literature.

The EPDS has demonstrated a significant correlation with the General Health Questionnaire ($r = 0.7$, $p < 0.001$), establishing its validity as a screening instrument for PPD. Studies have predominantly indicated that women who score ≥ 13 on the EPDS are

at increased risk for developing PPD, leading to the adoption of this score as the cutoff point for identifying probable cases of PPD. This threshold ensures that the EPDS effectively identifies women who may require further assessment and intervention for PPD.

Outcome Measures: The primary outcome measure is the incidence of PPD as determined by the EPDS score at 6–8 weeks postpartum. Secondary outcomes include the identification of risk factors associated with PPD, encompassing sociodemographic, obstetric, and psychosocial variables.

Ethical Considerations: The study is conducted following the principles of the Declaration of Helsinki and in compliance with local ethical guidelines. Institutional Review Board (IRB) approval are obtained before commencing the study. Informed consents are obtained from all participants, and confidentiality of personal information are strictly maintained throughout the study. Participants are informed of their right to withdraw from the study at any time without consequences for their medical care, their names were kept anonymous.

Statistical analysis

Data were entered into a computer and analyzed using version 20.0 of the IBM SPSS software package (Armonk, NY: IBM Corp). The Kolmogorov-Smirnov test was employed to assess the normality of the variable distributions. A paired t-test was utilized to compare two time periods for normally distributed quantitative variables, while ANOVA with repeated measures was applied to compare different studied time frames for normally distributed quantitative variables, followed by a Bonferroni-adjusted Post Hoc test for pairwise comparisons. The Pearson correlation coefficient was used to assess the relationship between two normally distributed quantitative variables. The significance of the results was determined at a 5% level.

Results

In our study, we examined the effect of maternal age and duration of marriage on Edinburgh Postnatal Depression Scale (EPDS) scores, categorizing participants into two groups: those at increased risk for developing postpartum depression (PPD) with EPDS scores ≥ 13 (Group 1) and those considered normal with EPDS scores < 13 (Group 2). The analysis was conducted on a sample of 150 women, with 43 in Group 1 and 107 in Group 2.

The mean maternal age in Group 1 (women with EPDS scores ≥ 13) was 30.53 years (± 6.46), while the mean maternal age in Group 2 (women with EPDS scores < 13) was 26.98 years (± 5.46). The p-value for the difference in maternal age between the two groups is < 0.0001 , indicating a statistically significant difference. This suggests that older maternal age is associated with a higher risk of developing PPD. The significant p-value underscores the importance of considering maternal age as a potential risk factor when screening for PPD.

The average duration of marriage for Group 1 was 6.61 years (± 5.52), compared to 5.28 years (± 4.44) for Group 2. The p-value for the difference in the

duration of marriage between the two groups is 0.051, which is not statistically significant. This indicates that, in our study, the duration of marriage does not have a significant impact on the risk of developing PPD. Despite the longer duration of marriage in the group at higher risk, this factor alone does not appear to be a decisive predictor of PPD.

This table examined the effect of various demographic factors on EPDS scores among women who recently gave birth.

The distribution of education levels among the two groups showed no statistically significant difference ($p = 0.522$). Specifically, 13.95% of women in Group 1 were highly educated, compared to 20.56% in Group 2. Secondary schooling was more common in Group 1 (69.77%) than in Group 2 (47.66%). The percentages of women who could read and write were lower in Group 1 (11.63%) compared to Group 2 (29.91%). Illiteracy was slightly higher in Group 1 (4.65%) than in Group 2 (1.87%). These results suggest that education level does not significantly impact the likelihood of developing PPD.

Regarding occupation, 72.09% of women in Group 1 were housewives, compared to 83.18% in Group 2. Conversely, 27.91% of women in Group 1 were working, compared to 16.82% in Group 2. The difference in occupation between the two groups was not statistically significant ($p = 0.281$), indicating that occupation status does not significantly affect the risk of PPD.

Marital status showed a significant difference between the two groups ($p = 0.004$). In Group 1, 88.37% of women were married, compared to 99.07% in Group 2. Additionally, 6.98% of women in Group 1 were divorced, compared to 0.93% in Group 2, and 4.65% of women in Group 1 were widows, compared to none in Group 2. These findings suggest that being divorced or widowed increases the risk of developing PPD.

The quality of the spousal relationship was a significant factor ($p < 0.0001$). In Group 1, 83.72% of women reported having a good relationship with their spouse, compared to 99.07% in Group 2. Conversely, 16.28% of women in Group 1 reported having a bad relationship with their spouse, compared to only 0.93% in Group 2. This indicates that a poor spousal relationship is strongly associated with an increased risk of PPD.

The sex of the children did not show a statistically significant difference between the groups ($p = 0.582$). In Group 1, 27.91% of women had male children, compared to 35.51% in Group 2. Female children were present in 23.26% of women in Group 1 and 20.56% in Group 2. Both male and female children were present in 48.84% of women in Group 1 and 43.93% in Group 2. Therefore, the sex of the children does not appear to significantly influence the risk of PPD.

This table examined the effect of behavioral factors on Edinburgh Postnatal Depression Scale (EPDS) scores among women who recently gave birth.

The presence of passive smoking did not show a statistically significant difference between the two groups ($p = 0.311$). In Group 1, 58.14% of women reported being exposed to passive smoking, compared to 63.55% in Group 2. Conversely, 41.86% of women in Group 1 were not exposed to passive smoking, compared to 36.45% in Group 2. These results suggest that passive smoking does not significantly influence the risk of developing PPD in this sample.

Planned pregnancy showed a highly significant difference between the two groups ($p < 0.0001$). In Group 1, 65.12% of women reported their pregnancy was planned, compared to 93.46% in Group 2. Conversely, 34.88% of women in Group 1 reported an unplanned pregnancy, compared to 6.54% in Group 2. This indicates that unplanned pregnancies are strongly associated with an increased risk of PPD. The significant difference highlights the importance of pregnancy planning in potentially mitigating the risk of developing postpartum depression.

Fear of labor did not show a statistically significant difference between the two groups ($p = 0.353$). In Group 1, 93.02% of women reported experiencing fear of labor, compared to 97.2% in Group 2. Conversely, 6.98% of women in Group 1 did not report fear of labor, compared to 2.8% in Group 2. These findings suggest that fear of labor is common among both groups and does not significantly impact the risk of PPD in this study.

This table investigated the effect of various obstetric factors on Edinburgh Postnatal Depression Scale (EPDS) scores among women who recently gave birth.

The number of children showed a significant difference between the two groups ($p = 0.003$). In Group 1, 51.16% of women had two or fewer children, compared to 71.03% in Group 2. Conversely, 48.84% of women in Group 1 had more than two children, compared to 28.97% in Group 2. These results suggest that having more than two children is associated with an increased risk of PPD.

The presence of obstetric health problems did not show a statistically significant difference between the two groups ($p = 0.075$). In Group 1, 32.56% of women reported having obstetric health problems, compared to 20.56% in Group 2. While not statistically significant, the higher prevalence of obstetric health problems in Group 1 may suggest a potential trend towards increased risk of PPD.

The place of labor did not show a statistically significant difference between the two groups ($p = 0.835$). In Group 1, 86.05% of women delivered in a hospital, compared to 86.92% in Group 2. Deliveries at home and in clinics or medical centers were relatively low and similarly distributed between the groups. This indicates that the place of labor does not significantly influence the risk of PPD.

The type of labor did not show a statistically significant difference between the two groups ($p = 0.069$). In Group 1, 46.51% of women had a normal vaginal delivery, compared to 60.75% in Group 2. Conversely, 53.49% of women in Group 1 had a cesarean section (C.S.), compared to 39.25% in Group 2. Although not statistically significant, the higher percentage of cesarean sections in Group 1 may suggest a potential association with increased PPD risk.

Receiving anesthesia during labor did not show a statistically significant difference between the two groups ($p = 0.095$). In Group 1, 58.14% of women received anesthesia, compared to 45.79% in Group 2. The higher percentage of anesthesia use in Group 1 may indicate a potential trend towards increased PPD risk, although this was not statistically significant.

Labor complications showed a significant difference between the two groups ($p = 0.0032$). In Group 1, 18.6% of women reported labor complications, compared to 6.54% in Group 2. This indicates that labor complications are associated with an increased risk of PPD, highlighting the importance of addressing and managing complications during labor to mitigate PPD risk.

This table analyzed the effect of various newborn-related factors on Edinburgh Postnatal Depression Scale (EPDS) scores among women who recently gave birth.

The sex of the newborn did not show a statistically significant difference between the two groups ($p = 0.601$). In Group 1, 44.19% of the newborns were male, compared to 48.6% in Group 2. Conversely, 55.81% of the newborns in Group 1 were female, compared to 51.4% in Group 2. These results suggest that the sex of the newborn does not significantly influence the risk of PPD.

The presence of health problems in the newborn showed a statistically significant difference between the two groups ($p = 0.0128$). In Group 1, 23.26% of women reported that their newborns had health problems, compared to 11.21% in Group 2. Conversely, 76.74% of women in Group 1 reported no health problems in their newborns, compared to 88.79% in Group 2. These findings indicate that having a newborn with health problems is significantly associated with an increased risk of PPD.

The method of feeding the newborn did not show a statistically significant difference between the two groups ($p = 0.156$). In Group 1, 67.44% of women were breastfeeding, compared to 78.5% in Group 2. Artificial feeding was reported by 13.95% of women in Group 1, compared to 9.35% in Group 2. Both breastfeeding and artificial feeding were reported by 18.6% of women in Group 1, compared to 12.15% in Group 2. Although not statistically significant, the lower percentage of breastfeeding in Group 1 may suggest a potential trend toward an increased risk of PPD.

Table (1): Effect of maternal age and marriage duration on EPDS scores

	<i>EPDS ≥13</i>	<i>EPDS <13</i>	<i>P value</i>	<i>Statistically significant</i>
	<i>N=43</i>	<i>N=107</i>		
Maternal Age	30.53 ± 6.46	26.98 ± 5.46	<0.0001	Sig.
Duration of Marriage	6.61 ± 5.52	5.28 ± 4.44	0.051	N.S
Statistical test used: Tow sample T-test & Chi-square test				
<i>p-value ≤0.05 considered statistically significant (95% confidence interval).</i>				

Table (2): Effect of Demographic Factors on EPDS scores.

	<i>EPDS ≥13</i>	<i>EPDS <13</i>	<i>P value</i>	<i>Statistically significant</i>
	<i>N=43</i>	<i>N=107</i>		
Education				
Highly educated	6(13.95%)	22(20.56%)	0.522	N.S
Secondary schooling	30(69.77%)	51(47.66%)		
Read & write	5(11.63%)	32(29.91%)		
Illiterate	2(4.65%)	2(1.87%)		
Occupation				
House wife	31(72.09%)	89(83.18%)	0.281	N.S
working	12(27.91%)	18(16.82%)		
Marital status				
Married	38(88.37%)	106(99.07%)	0.004	Sig.
Divorced	3(6.98%)	1(0.93%)		
widow	2(4.65%)	0(0%)		
Spousal Relationship				
Good	36(83.72%)	106(99.07%)	<0.0001	Sig.
Bad	7(16.28%)	1(0.93%)		
Sex of children				
Males	12(27.91%)	38(35.51%)	0.582	N.S
Females	10(23.26%)	22(20.56%)		
Both	21(48.84%)	47(43.93%)		
Statistical test used: Chi-square test				
<i>p-value ≤0.05 considered statistically significant (95% confidence interval).</i>				

Table (3): Effect of Behavioral Factors on EPDS scores

	<i>EPDS ≥13</i>	<i>EPDS <13</i>	<i>P value</i>	<i>Statistically significant</i>
	<i>N=43</i>	<i>N=107</i>		
Passive smoking				
Yes	25(58.14%)	68(63.55%)	0.311	N.S
No	18(41.86%)	39(36.45%)		
Planned pregnancy				
Yes	28(65.12%)	100(93.46%)	<0.0001	Sig.
No	15(34.88%)	7(6.54%)		
Fear of labor				
Yes	40(93.02%)	104(97.2%)	0.353	N.S
No	3(6.98%)	3(2.8%)		
Statistical test used: Chi-square test				
<i>p-value ≤0.05 considered statistically significant (95% confidence interval).</i>				

Table (4): Effect of Obstetric Factors on EPDS scores

	<i>EPDS ≥13</i>	<i>EPDS <13</i>	<i>P value</i>	<i>Statistically significant</i>
	<i>N=43</i>	<i>N=107</i>		
Number of children				
≤2	22(51.16%)	76(71.03%)	0.003	Sig.
>2	21(48.84%)	31(28.97%)		
Obstetric health problems				
Yes	14(32.56%)	22(20.56%)	0.075	N.S
No	29(67.44%)	85(79.44%)		
Place of Labor				
Hospital	37(86.05%)	93(86.92%)	0.835	N.S
Home	1(2.33%)	4(3.74%)		
Clinic/Medical center	5(11.63%)	10(9.35%)		
Type of Labor				
Normal vaginal	20(46.51%)	65(60.75%)	0.069	N.S
C.S.	23(53.49%)	42(39.25%)		
Received anesthesia				
Yes	25(58.14%)	49(45.79%)	0.095	N.S
No	18(41.86%)	58(54.21%)		
Labor complications				
Yes	8(18.6%)	7(6.54%)	0.0032	Sig.
No	35(81.4%)	100(93.46%)		
Statistical test used: Chi-square test				
<i>p-value ≤0.05 considered statistically significant (95% confidence interval).</i>				

Table (5): Effect of Newborn-Related Factors on EPDS scores

	<i>EPDS ≥13</i>	<i>EPDS <13</i>	<i>P value</i>	<i>Statistically significant</i>
	<i>N=43</i>	<i>N=107</i>		
Newborn's sex				
Male	19(44.19%)	52(48.6%)	0.601	N.S
Female	24(55.81%)	55(51.4%)		
Newborn's health problems				
Yes	10(23.26%)	12(11.21%)	0.0128	Sig.
No	33(76.74%)	95(88.79%)		
Feeding of the Newborn				
Breast	29(67.44%)	84(78.5%)	0.156	N.S
Artificial	6(13.95%)	10(9.35%)		
Both	8(18.6%)	13(12.15%)		
Statistical test used: Chi-square test				
<i>p-value ≤0.05 considered statistically significant (95% confidence interval).</i>				

Discussion

The prevalence of Postpartum Depression (PPD) represents a significant public health concern due to its profound implications for both maternal and child well-being. Consequently, investigating its prevalence and etiological factors within communities is paramount for effective disease prevention (Brockington et al., 2017).

Various studies have reported differing prevalence rates of PPD. For instance, a meta-analysis in Turkey found a prevalence of 23.8%, while another study assessing the Turkish version of the Edinburgh Postnatal Depression Scale (EPDS) reported a prevalence of 14.4%. A comprehensive meta-analysis encompassing 59 studies estimated the prevalence at 13% (Place et al., 2016).

Furthermore, a review by Halbreich and Karkun, 2006 synthesized data from 143 studies across 40 countries, indicating a prevalence range of 10-15%. Discrepancies in these findings can be attributed to several factors, including variations in diagnostic tools, study methodologies, participant inclusion criteria across different postpartum periods, and the heterogeneity of study populations representing diverse cultural and risk contexts (Holland et al., 2024).

The present study's findings reveal a noteworthy prevalence estimate of Postpartum Depression (PPD) at 26.8%, surpassing figures reported in studies conducted in Western nations such as Canada and the United Kingdom, where prevalence rates range between 10%-15% and 12.8%, respectively. This disparity is further emphasized by a meta-analysis conducted by O'Hara and Swain, which synthesized data from 59 studies across North America, Europe, and Australasia, yielding an overall prevalence rate of PPD at 13% (Al Hinai et al., 2014; Arifin et al., 2018).

The estimated prevalence of Postpartum Depression (PPD) varies significantly across different countries. For instance, prevalence rates in Lebanon stand at 21%, in the United Arab Emirates (UAE) at 22%, in Tunisia at 19.2%, in Jordan at 22%, in Saudi Arabia at 33.2%, in Bahrain at 37.1%, and in Oman at 10%. This wide range of prevalence rates may be attributed to several factors. Firstly, cross-cultural differences play a significant role in shaping attitudes and experiences related to PPD, influencing its

prevalence rates across diverse cultural contexts. Secondly, variations in the interpretation and understanding of items within screening tools like the Edinburgh Postnatal Depression Scale (EPDS) by women from different cultural backgrounds can impact reported prevalence rates. Additionally, differences in the timing of postpartum screening and the establishment of cutoff scores for identifying PPD may also contribute to the observed variability in prevalence rates among these regions (Chaaya et al., 2002; Katherine et al., 2006; Masmoudi et al., 2008; Mohammad et al., 2011; Alharbi et al., 2014; Al Dallal et al., 2012).

The findings of this study highlight maternal age as a significant factor associated with increased risk of PPD. Older mothers are more likely to score ≥ 13 on the EPDS, indicating higher susceptibility to postpartum depression. However, the duration of marriage does not show a statistically significant difference between those at risk and those not at risk for PPD. These insights emphasize the need for targeted screening and intervention strategies, particularly for older mothers, to better manage and mitigate the risk of postpartum depression.

This finding differs from the results reported in several earlier studies, including those by Stowe et al., which indicated that mothers aged 15 to 19 years face a higher risk for postpartum depression (PPD) (Halbreich and Karkun, 2006).

The analysis of demographic factors reveals that marital status and the quality of the spousal relationship significantly impact the risk of developing PPD. Divorced or widowed women, and those with poor spousal relationships, are at higher risk for PPD. In contrast, education, occupation, and the sex of children do not show a significant effect on PPD risk. These findings underscore the importance of providing targeted support to women with adverse marital circumstances to help mitigate the risk of postpartum depression.

Conflict and a strained spousal relationship elevate the risk of depression, which aligns with the findings of Chan et al., 2002. Furthermore, prior

studies have shown a positive correlation between informal structural social support, particularly that provided by a partner (Stowe et al., 1995).

The present study revealed a significant association between depression and marital status, indicating that divorced or widowed women are more likely to experience depression. This contrasts with findings from Watson JP, who reported no correlation between postpartum depression (PPD) and marital status (Chan et al., 2002).

The analysis of behavioral factors reveals that planned pregnancy significantly impacts the risk of developing PPD, with unplanned pregnancies being associated with a higher risk. However, passive smoking and fear of labor do not show significant effects on PPD risk in this sample. These insights emphasize the importance of supporting women in planning their pregnancies and addressing potential psychological impacts associated with unplanned pregnancies to reduce the incidence of postpartum depression. Beside previous factors increasing risk of depression, unplanned pregnancy was found to be one of the significant factors in the current study to increase EPDS scores (Watson et al., 1984).

The analysis of obstetric factors reveals that the number of children and labor complications significantly impact the risk of developing PPD. Women with more than two children and those who experience labor complications are at higher risk for postpartum depression. Other factors such as obstetric health problems, place of labor, type of labor, and receiving anesthesia did not show significant effects but may indicate potential trends that warrant further investigation.

These findings emphasize the importance of providing comprehensive obstetric care and support to women with multiple children and those experiencing labor complications to reduce the incidence of postpartum depression. This aligns with findings from low-income countries like Nepal and Pakistan, where multi-parity contributes to increased family stress and a higher risk of postpartum depression (PPD) due to the physical and financial demands of childcare. However, in the UAE, having multiple children is considered a protective factor against PPD (Dennis et al., 2006; Ho-Yen et al., 2007; Rahman et al., 2007).

The analysis of newborn-related factors reveals that the presence of health problems in the newborn significantly impacts the risk of developing PPD. Women with newborns who have health issues are at a higher risk for postpartum depression. Other factors, such as the sex of the newborn and the method of feeding, did not show significant effects but may indicate potential trends that require further investigation. These findings emphasize the importance of providing additional support to mothers with newborns facing health challenges to reduce the incidence of postpartum depression.

Conclusion

In conclusion, our study underscores the multifaceted nature of factors contributing to the risk of postpartum depression (PPD). Maternal age, marital status, spousal

relationship quality, planned pregnancy, obstetric history, and newborn health all emerged as significant determinants of PPD risk in our analysis.

Specifically, older maternal age, divorced or widowed marital status, poor spousal relationship quality, unplanned pregnancy, having more than two children, experiencing labor complications, and having a newborn with health problems were all associated with heightened vulnerability to PPD.

The intersection between mental health and crime highlights the importance of early diagnosis and intervention and ongoing research to prevent these tragic outcomes.

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معدلات الإصابة باكتئاب ما بعد الولادة وجوانبها الطبية والقانونية بين المريضات المترددات على العيادات الخارجية لمستشفيات جامعة عين شمس، قسم أمراض النساء والولادة

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الملخص العربي

الخلفية العلمية: يعد اكتئاب ما بعد الولادة اضطراباً شائعاً في الصحة العقلية يصيب النساء ويتميز بمشاعر دائمة من الحزن والقلق والإرهاق. يمكن أن يظهر اكتئاب ما بعد الولادة في أي وقت خلال السنة الأولى بعد الولادة، مما يشكل مخاطر على كل من راحة الأم ونمو الرضيع إذا لم يتم علاجه.

أحد أخطر مظاهر اكتئاب ما بعد الولادة هو احتمال أن تؤدي الأم نفسها أو تقوم بالانتحار أو حتى القيام بإيذاء طفلها أو قتله، وبالتالي يلعب الطب الشرعي دوراً مهماً في تقييم مثل هذه الحالات التي تعاني من اكتئاب ما بعد الولادة والتي ربما تكون قد ساهمت في السلوك الإجرامي.

الهدف من الدراسة: تهدف هذه الدراسة المتابعة المستقبلية إلى تقييم حدوث اكتئاب ما بعد الولادة وجوانبها الطبية والقانونية بين مرضى العيادات الخارجية في مستشفيات جامعة عين شمس، قسم أمراض النساء والتوليد. من خلال تصميم نظام الدراسة المتابعة المستقبلية، تدرس هذه الدراسة تطور اكتئاب ما بعد الولادة بمرور الوقت وتحدد عوامل الخطر المرتبطة بما داخل مجموعة سكانية معينة.

النتائج: تكشف النتائج عن ارتباطات كبيرة بين خطر اكتئاب ما بعد الولادة وعمر الأم، والحالة الاجتماعية، وجودة العلاقة الزوجية، والحمل المخطط له وتاريخ التوليد، وصحة حديثي الولادة. سن الأم الأكبر سناً، وحالة الطلاق أو الأرملة، والعلاقات الزوجية السيئة، والحمل غير المخطط له، وتعدد الأطفال، ومضاعفات المخاض، والقضايا الصحية لحديثي الولادة، كلها تزيد من التعرض لمرض اكتئاب ما بعد الولادة.

الخلاصة: تؤكد هذه النتائج على ضرورة استراتيجيات الفحص والتدخل المستهدفة، لا سيما بالنسبة للفئات المعرضة للخطر الشديد. إن معالجة عوامل الخطر هذه من خلال الرعاية التوليدية الشاملة والدعم النفسي والاجتماعي يمكن أن تخفف بشكل فعال من تأثير اكتئاب ما بعد الولادة على رفاهية الأم والطفل. هناك ما يبرر إجراء مزيد من البحوث لتطوير استراتيجيات الوقاية والإدارة المصممة خصيصاً لاكتئاب ما بعد الولادة في مجموعات سكانية متنوعة. كما ان التدخل بين الصحة العقلية وارتكاب الجرائم يسلط الضوء على أهمية التشخيص والتدخل المبكر والبحث المستمر في اكتئاب ما بعد الولادة لمنع هذه النتائج المأساوية.