

TRAUMATIC DELIVERY EXPERIENCES AND SOCIAL ISOLATION AS PREDICTORS OF POSTPARTUM DEPRESSION AMONG BREASTFEEDING MOTHERS IN CHUKWUEMEKA ODUMEGWU OJUKWU UNIVERSITY TEACHING HOSPITAL, AWKA, ANAMBRA STATE.

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Abstract

Postpartum depression is a serious but neglected mental health issue that affects women after childbirth, with characterized persistent feelings of sadness, hopelessness, anxiety, worry, fear, mood swings, and feeling disconnected from baby. It affects mother and child bonding, brings about suicidal thoughts, and thoughts of harming the newborn. The objective of the study was to explore the psychosocial factors (traumatic delivery experiences and social isolation) as predictors of postpartum depression among breastfeeding mothers in Chukwuemeka Odumegwu Ojukwu University Teaching Hospital, Awka, Anambra State. 1) Traumatic delivery experiences as a psychosocial factor will not significantly predict postpartum depression among breastfeeding mothers in Chukwuemeka Ojukwu Odumegwu University Teaching Hospital, Awka. (2) social isolation as a psychosocial factor will not significantly predict postpartum depression among breastfeeding mothers in Chukwuemeka Ojukwu Odumegwu University Teaching Hospital, Awka. The research design adopted for the study was a correlational research design. The sample size was 209 breastfeeding mothers in COOUTH, Awka. Data were collected using Edinburgh Postnatal Depression Scale (EPDS) and a structured questionnaire titled Predictors of postpartum depression. The internal constituency was established using Kuder Richardson at 0.77. The research questions were analyzed using simple logistics regression. Null hypotheses were analyzed at 0.05 level of significance. Findings from the study revealed that traumatic delivery experiences and social isolation, significantly and positively predicted postpartum depression. Based on the findings it was recommended that Federal and State Government should establish community building initiatives, personalized mental health support and establish trauma informed care training.

Keywords: Postpartum depression, Breastfeeding, Mothers and Suicidal Thoughts.

Introduction

Postpartum depression affects women of all walks of life, it is a silent killer that has eaten deep into our present-day society. Postpartum depression has a significant impact on the mother and long-term consequences on the cognitive and emotional development of most children whose mothers are affected. Postpartum depression often arises from unmitigated discomfort, pain, and exhaustion in the postpartum period, constituting a dysfunctional stress response undermining physiological restoration (Huang et al., 2022).

According to Carlson et al., (2024), postpartum depression is a mood disorder affecting individuals within the first year after childbirth. Also, according to the diagnostic and statistical manual of mental disorders, 5th Edition (DSM-5), a manual used to diagnose mental disorders, postpartum depression is a form of major depression that begins within four weeks after delivery, it is now included in the term perinatal depression. (Serati et al., 2016).

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Symptoms of postpartum depression includes persistent sadness, lack of interest, low self-esteem, sleep disturbances, loss of appetite, anxiety, irritability with a hostile attitude towards infants, self-blame and feelings of humiliation characterize postpartum depression. (Liu et al., 2022). People with postpartum depression may also experience changes in eating and sleeping patterns, difficulty bonding with their baby, feelings of hopelessness or worthlessness, recurrent thoughts of death or suicidal ideation. There is no known cause of postpartum depression, but genetics, physical changes, and emotional issues may play a role.

On the other hand, some women are not able to cope with the emotional upsurges during their postnatal period and this may result in depressive episodes or mood disorders amongst them. (American Psychiatric Association, 2020). Breastfeeding provides well-established health benefits for both mothers and babies, including reduced risk of breast and ovarian cancer and reduced infections and obesity for infants (Victoria et al., 2016). Breastfeeding and postpartum depression are intertwined issues requiring compassionate understanding and support. Breastfeeding poses particular challenges, as it can be difficult to leave the feeding newborn frequently.

In contrast, the overall prevalence of postpartum depression was 17 percent among healthy mothers without a prior history of depression and who gave birth to healthy full-term infants. Another systematic review and meta-analysis studies were also carried out in Africa which reported an overall pooled prevalence of postnatal depression of 16.84 percent. (Dadi et al., 2020). In Nigeria, rates ranging from 10.7 percent to 44.39 percent have been documented in various sub-geographical regions (Abba et al., 2023). A study from Southeast, Nigeria carried out in Anambra State, reported a prevalence of 22.5 percent (Tungchama et al., 2018).

The psychosocial predictive factors of postpartum depression are explained below. The first predictive factor is traumatic delivery experience. Traumatic delivery experiences are one of the factors that contributes to postpartum depression, women who experience traumatic childbirths or unfulfilled birth expectations face amplified PPD vulnerability, (Dikmen et al., 2017). Childbirth can be very challenging, with 1 in 3 individuals experiencing trauma by extreme physical, emotional, or psychological distress. Cesarean birth, greater blood loss, and preterm birth were each associated with greater patient-reported childbirth trauma. Screening women for traumatic reactions to childbirth and providing early intervention when needed are prudent measures.

Social isolation is also another PPD factor whereby new mothers often feel profoundly lonely and disconnected from their former support systems. Modern nuclear family structures and distant kinship networks contribute to postpartum depression. Several studies have reported a connection between insecure attachment and poor support from significant others. In addition, the lower level of perceived family support and absence of a wider social network predicted depression. Poor support as a risk factor for recurrent depression after childbirth is inevitable. Mothers with recurrent depression experienced poorer support and empathy from their spouses and significant others than never-depressed mothers. According to Asselmann et al., (2016), found that women with depressive disorders before pregnancy had unfavorable partnership development during the peripartum period. Social isolation undermines maternal emotional well-being, and PPD prevention initiatives should aim to cultivate community support. The lower level of perceived family support and absence of a wider social network predicted depression.

Additionally, postpartum depression (PPD) in breastfeeding mothers arises from a combination of factors, including traumatic childbirth experiences, social isolation, and challenges related to the infant. As breastfeeding offers indisputable benefits for mothers and infants, interventions must proactively sustain breastfeeding while simultaneously safeguarding maternal emotional health. This will require open communication, stigma reduction, improved screening tools, and evidence-based treatment protocols tailored to

breastfeeding mothers. With empathy and woman-centred care, optimal outcomes for both mothers and babies are achievable.

Based on this, the study aims to address this gap through an in-depth investigation of psychosocial factors as predictors of PPD among breastfeeding mothers seeking care at Chukwuemeka Odumegwu Ojukwu Hospital, Awka, Anambra State, Nigeria.

Statement of the problem

Postpartum depression is a mental disorder that poses significant and often overlooked challenges to maternal mental health, impacting women during the delicate period following childbirth. It can have a long-lasting negative effect on the mother and her child, including disruptions in the mother-child bond, poor infant growth, and increased maternal stress. According to the World Health Organization, (2020), approximately 10-15% of women who give birth experience PPD, making it a common and severe mental health issue. In Africa, women are not given the encouragement to share their mental health issues, due to severe stigmatization, fear of mockery, and isolation referring to them as mad people. Additionally, mental health services for the treatment of depression may not function efficiently and the mother may not know enough about the mental health services available. (Kasteenpohja, et al. 2015).

In light of the above, various policies and intervention programs and strategies such as (National Health Policy 2016, National Mental Health Policy 2013, National Primary Health Care Development Agency 1992 (NPHCDA), and the Postpartum Support Network Africa 1987 (PSNA) amongst others, were aimed at enhancing the reduction of PPD prevalence to bring about healthy mother and child bonding as well as improved mental health of breastfeeding mothers. Without intervention, chronic disease vulnerability resulting from recurrent postpartum depressive episodes produces a multiplier strain on women's public health through subsequent life stages (Farr et al., 2022). However, despite the provision of these policy documents, PPD among breastfeeding mothers has not been fully eradicated or conquered, rather, PPD prevalence is on the increase.

For instance, postpartum depression affects a great number of women worldwide, it has been linked to suicide, and impaired mother-and-child bonding, which in turn affects the cognitive, physical, and emotional well-being of the newborn and the community. Although several studies have been conducted on this subject, this critical issue remains unresolved.

Purpose of the study

The purpose of this study was to determine the predictors of postpartum depression among breastfeeding mothers in Chukwuemeka Odumegwu Ojukwu University Teaching Hospital, Awka. Specifically, the study determined if:

1. traumatic delivery experiences are predictors of postpartum depression among breastfeeding mothers in Chukwuemeka Odumegwu Ojukwu University Teaching Hospital, Awka.
2. social isolation is a predictor of postpartum depression among breastfeeding mothers in Chukwuemeka Odumegwu Ojukwu University Teaching Hospital, Awka

Research Hypotheses

The following null hypotheses have been formulated to guide the study and were tested at 0.05 levels of significance

- traumatic delivery experiences will not significantly predict postpartum depression among breastfeeding mothers in Chukwuemeka Ojukwu Odumegwu University Teaching Hospital, Awka.

- social isolation will not significantly predict postpartum depression among breastfeeding mothers in Chukwuemeka Odumegwu Ojukwu University Teaching Hospital, Awka.

Methodology

The research design for the study was correlational. According to Creswell and Creswell (2018), correlational research design is a non-experimental research method that examines the relationship between two or more variables. It is used to identify patterns and predict outcomes. The study was conducted in Awka, Anambra state. The study was carried out at Chukwuemeka Odumegwu Ojukwu University Teaching Hospital in Awka. Awka is the state capital of Anambra State, located in the south-east geographical zone of Nigeria. The researcher considered the study area because a good number of women attend the hospital for maternal and child health care services. It is easy to access participants because it has a steady flow of patients and an established system which can facilitate data collection and research operations.

The population for the study was 440 breastfeeding mothers attending Chukwuemeka Odumegwu Ojukwu University Teaching Hospital, Awka, Anambra State. These include mothers who are 6 weeks after birth and above. The researcher employed the Taro Yamane formula in arriving at the sample size used for the study, and it is stated thus:

$$n = \frac{N}{1 + N(e)^2}$$

$$n = \frac{440}{1 + 440(0.05)^2}$$

$$n = 209$$

Thus, the sample size of the study is 209.

The researcher also adopted purposive sampling to select the participants, because the study was directly involved with breastfeeding mothers. The researcher adopted the Edinburgh Postnatal Depression Scale (EPDS), which was developed by Cox, Holder, and Sagovsky (1987). The researcher also used a structured questionnaire which was dichotomous in nature i. e Yes/No, titled "Predictors of Postpartum Depression among Breastfeeding Mothers" (PPDBM). The face validity of the instrument was determined using the opinions of three experts. The reliability co-efficient was established using the Kuder-Richardson statistic and obtained a coefficient 0.77 and 0.68. The researcher used a direct delivery method to distribute copies of the questionnaires. Simple logistics regression was used to analyze the study. This is in line with analyzing predictive studies with regression. Inferential statistics of regression were used to test the null hypotheses at a 0.05 level of significance. The collected data was computerized and statistically analyzed using the SPSS (Statistical Package for Social Science), version 25.

Ethical Consideration

Ethical approval (approval no: Ref: COOUTH/CMAC/ETH.C/Vol.1/FN:04/335) for the study was obtained from Chukwuemeka Odumegwu Ojukwu University Teaching Hospital, Awka Health Research and Ethics Committee (HREC) and informed consent was obtained verbally from all the participants.

Results

Research Question One: Can traumatic delivery experiences predict postpartum depression among breastfeeding mothers?

Table 1: Logistic Regression with Traumatic Delivery Experiences as Predictor of Postpartum Depression Among Breastfeeding Mothers (n=173)

Predictor	B	S.E.	Exp(B) Odds Ratio	Remark
Constant	-1.13	0.33	0.33	
Traumatic delivery experiences	0.30	0.08	1.34	Positive

Table 1 shows the logistic regression analysis with traumatic delivery experiences as a predictor of postpartum depression among breastfeeding mothers. The B value of 0.30 shows that an increase in traumatic delivery experiences increases the likelihood of breastfeeding mothers having postpartum depression. Furthermore, the odd ratio [Exp(B)] of 1.34 indicates that a traumatic delivery experience by one unit increases the odds of a breastfeeding mother having postpartum depression by 1.34.

Research Question Two: Can social isolation predict postpartum depression among breastfeeding mothers?

Table 2: Logistic Regression with Social Isolation as Predictor of Postpartum Depression Among Breastfeeding mothers (n=173)

Predictor	B	S.E.	Exp(B) Odds Ratio	Remark
Constant	-1.16	0.28	0.31	
Social Isolation	0.41	0.08	1.51	Positive

Table 2 presents the logistic regression analysis with social isolation as a predictor of postpartum depression among breast-feeding mothers. As displayed in the Table, the B = 0.41 suggests that increasing social isolation increases the likelihood of breastfeeding mothers having postpartum depression. Specifically, the odd ratio [Exp(B)] of 1.51 indicates that an increase in social isolation by one unit increases the odds of a breastfeeding mother having postpartum depression by 1.51.

Hypothesis One: Traumatic delivery experiences will not significantly predict postpartum depression among breastfeeding mothers.

Table 3: Summary Test of Significance of Logistic Regression with Traumatic Delivery Experiences as Predictor of Postpartum Depression Among Breastfeeding Mothers (n=173)

	B	S.E.	Exp(B) Odds Ratio	Wald (W1)	P	Remark
Constant	-1.12	0.33	0.32	11.36	0.00	
Traumatic delivery experiences	0.30	0.08	1.34	13.59	0.00	Significant

Note. $R^2 = 0.11$ (Nagelkerke). $p = 0.000$.

The summary of logistic regression displayed in Table 10 shows that traumatic delivery experiences were a positive and significant predictor of postpartum depression among breastfeeding mothers, $b = 0.30$, $s.e. = 0.08$, $W(1) = 13.59$, $p = 0.000$, therefore, the null hypothesis was rejected since the p -value was less than 0.05 level of significance.

Hypothesis Two: Social isolation will not significantly predict postpartum depression among breastfeeding mothers.

Table 4: Summary Test of Significance of Logistic Regression with Social Isolation as Predictor of Postpartum Depression Among Breastfeeding Mothers (n=173)

	B	S.E.	Exp(B) Odds Ratio	Wald (W1)	P	Remarks
Constant	-1.16	0.28	0.31	17.52	0.000	
Social Isolation	0.41	0.08	1.51	23.56	0.000	Significant

Note. $R^2 = 0.21$ (Nagelkerke). $p = 0.000$.

The summary of logistic regression displayed in Table 11 shows that social isolation was a positive and significant predictor of postpartum depression among breastfeeding mothers, $b = 0.41$, $s.e. = 0.08$, $W(1) = 23.56$, $p = 0.000$. Since the p -value was less than 0.05 level of significance, the null hypothesis was rejected.

Discussion of Findings

This section provides a comprehensive discussion of the research findings, emphasizing the predictors of postpartum depression (PPD) among breastfeeding mothers. The findings of the study are discussed as follows:

1. Traumatic delivery experience as a psychosocial predictor of PPD among Breastfeeding Mothers.
2. Social isolation as a psychosocial predictor of PPD among Breastfeeding Mothers

Traumatic Delivery Experience as a Psychosocial Predictor of Postpartum Depression

Experiences of a traumatic delivery further compound the risks associated with postpartum depression. Many mothers face psychological repercussions from difficult or traumatic childbirth, contributing to feelings of anxiety and depression. Addressing these experiences is essential for supporting maternal mental health in the postpartum period. This agrees with Anosike, et al. (2024), which reported that women who did not have complications during childbirth were about two times less likely to develop symptoms of PPD than women who experienced birth complications. Also, Yin, Shi, Heinonen, and Raisanen, (2024), revealed that a high level of fear of childbirth during the third trimester was associated with increased postpartum mental health symptoms and reduced breastfeeding establishment. Traumatic delivery experience was a significant predictor of postpartum depression among breastfeeding mothers. Additionally, Buesa, et al. (2024), also carried out a study on Predictors of postpartum depression in threatened preterm labor. Postpartum depression (PPD) is more common in high-risk pregnancies, one of the main causes of high-risk pregnancy is threatened preterm labor (TPL), a stressful event that involves psychological consequences for the mother

Childbirth trauma is common and increases the risk for postpartum depression (PPD). Pregnancy and delivery-related complications may also be a cause of several physical and

mental stresses for the mother and predict PPD as opined by Norhayati et al., 2015. Norhayati also suggested that obstetric factors, including pregnancy-related complications such as hyperemesis, pre-eclampsia, premature contractions and labor, hypertension, headache, pain, anemia, gestational diabetes, diabetes mellitus, and amniocentesis, as well as cesarean section and delivery-related complications such as difficult and painful labor, instrumental delivery, premature delivery and complicated puerperium such as excessive bleeding have been suggested with mixed findings to be potential risk factors for PPD. Screening women for traumatic reactions to childbirth and providing early intervention when needed are prudent measures.

Social Isolation as a Psychosocial Predictor of Postpartum Depression

Social isolation emerged as another key predictor of postpartum depression among breastfeeding mothers. The lack of social support networks can intensify feelings of loneliness and despair, making it difficult for mothers to cope with the demands of new motherhood. Fostering connections and providing support to breastfeeding mothers can significantly reduce the risk of developing PPD. This agrees with Ruan, Juan & Wu, (2024), which revealed that PPD during breastfeeding was associated with marital harmony, newborn health, stress communication, mutual support, negative support, and joint support. Also, Qi, et. al (2022), revealed that interpersonal relationships with family members play important roles in PPD, improving the relationship between new mothers and their husbands or mother-in-law and then enhancing social support might reduce postpartum depression. Additionally, Igo et al., (2020), opined that psychologists and other health care providers who have daily encounters with postpartum women should note that stress among nursing mothers is a risk factor for postpartum depression and therefore should be avoided and social support should be enhanced.

Conclusion

In conclusion, the findings underscore the multifaceted nature of postpartum depression among breastfeeding mothers, highlighting psychosocial factors as predictors of postpartum depression. Addressing these predictors through targeted interventions and support systems is vital for enhancing the mental health and well-being of mothers during this crucial period. With this understanding, the researcher concluded that mothers who are exposed to these varying predictors need to be sensitized and utilize the various mental health strategies for effective management of postpartum depression to help them manage their mental health for mother and child bonding as well as a reduction in suicidal ideation. Further research is warranted to explore effective models of support for breastfeeding mothers at risk of postpartum depression.

5.3 Recommendation

Based on the findings the following recommendations were made:

- 1) Federal and State Government should establish community building initiatives like community-based support networks that reduce social isolation. Initiatives such as moms' groups, postpartum support networks, or online forums can facilitate connections among mothers, fostering shared experiences and emotional support.
- 2) Health educators and health care providers should encourage trauma-informed care training. Incorporate trauma-informed care principles into healthcare practices for new mothers. Training healthcare providers to recognize and address the impact of traumatic delivery experiences can create a more supportive environment for healing and mental health.

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