



Predictors of Postpartum Depression among Nursing Mothers in Calabar South Cross River Nigeria

Afolayan, Favour^{1*} and Asekun-Olarinmoye, Ifeoluwapo¹

¹Department of Biochemistry, Babcock University, Ilishan-Remo, Ogun, Nigeria.

*Corresponding author <favourafolayan2@gmail.com>

Abstract

Postpartum depression is a mood disorder that occurs in some women after childbirth. It is one of the most frequent postpartum complications which usually appears 4-6 weeks after delivery and can persist for up to a year. Consequently, this study looked into the predictors of postpartum depression among nursing mothers in Calabar South Cross River State. A cross-sectional study was conducted among 254 mothers in Calabar South Local Government Area of Cross River State, Nigeria, attending seven primary health centers for infant immunization from four weeks to eleven months postpartum. A standardised questionnaire administered by an interviewer was used to gather the data. Data were analyzed using IBM SPSS 23.0 to generate descriptive and inferential statistics at a $p < 0.05$ level of significance. The mean score for knowledge was 5.93 ± 2.86 . More than half (52.0%) of the respondents had a negative attitude toward postpartum depression, (52.4%) of the respondents had a high perception, and (53.1%) of respondents had high self-esteem. More than half (56.1%) of the respondents had low media influence, (53.1%) of the respondents had social support, and (65.4%) of the respondents had low enabling factors. There was a significant relationship ($p = 0.000$) between each respondent's independent variables and level of postpartum depression except for enabling factors. Social support was a predictor of postpartum depression among this study population. It is suggested that family members should be made more aware of the need for supporting nursing mothers so as to improve their mental health by reducing postpartum depression.

Keywords: Social Support, Postpartum Depression, Knowledge, Attitude, Media.

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Introduction

Postpartum depression (PPD) is an important issue public health problem affecting about 15-20% of women globally, and the most common complication of childbearing which occurs within 4-6 weeks after delivery and may persist after a year of delivery (Wang, Jiaye, Huan & Zhongxiang, 2021). It is characterized by alterations in eating and sleeping order, tiredness, unhappiness, weeping, uneasiness, and guilt feelings connected to the ability to look after the newborn (WHO, 2016).

In Africa the prevalence of postpartum depression is estimated at 18.4%, however, some African nations have reported increased prevalence rates such as Ethiopia 33.82%, South Africa (31.7-39.6%), Uganda 43% (Kerie, Melak, & Wondwossen, 2018; Catherine, Laura, Samuel, Godfrey & Grace, 2020). In sub-Saharan Africa, the prevalence of postpartum depression is 18.6%, 20.2%, and 17.7% in Eastern, Western Africa, and Southern Africa respectively (Woldeyohannes, Tekalegn, Sahiledengle, Ermias, Ejajo Mwanri, 2021). In Nigeria, several investigations have been made to determine the prevalence of PPD in different regions, in Lagos, the prevalence is 35.6%, in Jos 44.9%, and in South-Eastern Nigeria 30.6% (Adeyemo, Oluwole, Kanma-Okafor, Izuka & Odeyemi, 2020; Tungchama, Obindo, Armiya'u, Maigari, 2018; Ukaegbe, Itেকে, Bakare, Agbata, 2012). Research has shown that developing countries face the greatest burden of postpartum depression, where psychological issues are mostly ignored compared to other developed countries (Wang et al, 2021). The majority of women in developing countries remain undiagnosed and untreated for postpartum depression, despite sufficient evidence for a greater risk of depression which can lead to unfavourable outcomes in mothers and children.

Postpartum depression poses a threat to the well-being of the mother, child, and her marital relationship which is why it is important for it to be diagnosed early and treated. Postpartum depression left untreated can cause long-term repercussions that can affect the mother and her child, the mother may experience recurrent depression episodes which can lead to maternal suicide (Slomian, Germain, Patrick, Jean-Yves, & Olivier, 2019). On the other hand, it can lead to diminished mother-to-child bonding, poor

cognitive functioning, behavioural inhibition, infant growth retardation, undernutrition, and infanticide (Bell & Anderson, 2016).

The incidence of postpartum depression can be caused by factors such as sociodemographic factors (age, religion, unemployment, and socioeconomic status), clinical factors (previous history of depression, and family history of depression), obstetric factors (previous miscarriage, unwanted pregnancy, and obstetric complication), psychological factors (anxiety during pregnancy, and stress) and social factors (marital discord, social support, and social class) (Stewart, Robertson, Dennis, Grace, & Wallington, 2003). Many women hide their emotions during postnatal visits and consider PPD to be a typical rather than a serious condition, so they may bottle up their emotions and keep them to themselves. In addition, many women are uninformed of the illness's indications and symptoms, and those who are aware of the problem tend to remain quiet about it because in countries like Nigeria there is so much stigma attached to mental health issues, which has affected diagnosis and treatment of postpartum depression among women (Adeyemo, Oluwole, Kanma-Okafor, Izuka & Odeyemi, 2020).

Postpartum depression is often neglected, ignored, and stigmatized in Nigeria; this could result from poor knowledge of mothers about the mental health problem, negative attitudes towards mental health issues or poor perception of mental health issues. A number of studies carried out in Nigeria on postpartum depression concentrated on the prevalence of postpartum depression. However, there are still limited studies on postpartum depression and a comprehensive strategy must be used to address the problem of postpartum depression among nursing mothers in Nigeria, which will help to better understand the issues that affect postpartum depression, and this study seeks to address that by investigating the predictors of postpartum depression among nursing mothers which assesses the personal predisposing factors of postpartum depression, environmental factors that can reinforce postpartum depression, and enabling factors that can encourage or discourage postpartum depression among nursing mothers.

Methodology

A cross-sectional study was done in seven purposively selected primary healthcare centers in Calabar South LGA, Cross River Nigeria among women between four weeks to eleven months postpartum, attending infant immunization clinics. Using the Cochran formula for known population, a sample size of 275 was calculated including a 10% attrition rate. The sample size was distributed into proportions based on the population of mothers in each PHC. Systematic sampling was used to select respondents from each primary healthcare centre and every second mother on the immunization register was selected for an interview till the total was achieved.

Research Instrument and Data Collection

A pretested, five-part structured questionnaire that was administered by an interviewer was used to gather the data. In the first component, respondents' demographic information was gathered.; the second component included the predisposing factors of postpartum depression (Knowledge measured on 9 point scale, attitude measured on a 12-point scale, perception measured on a 12-point scale, and self-esteem measured on a 12-point scale with a total obtainable score of 45 points); the third section included the environmental factors that can reinforce postpartum depression (media measured on a 10-point scale and social support measured on a 6-point scale with a total obtainable score of 16 points); the fourth section included the enabling factors that can promote or discourage postpartum depression (health infrastructure with a total obtainable score of 8), and the fifth section consisted of the level of postpartum depression (with a total obtainable score of 24) which was adapted from the Edinburg Postpartum Depression Scale (EDPS). The researcher and four trained research assistants collected this study's data.

Data Analysis

IBM SPSS version 23.0 was used for the data analysis. The relationship between the predisposing, reinforcing, and enabling factors and the level of postpartum depression was assessed using the Pearson correlation test. At a significance level of $p < 0.05$, the results were

presented using both descriptive and inferential statistics.

Ethical Consideration

Babcock University's Health Research Ethics Committee gave its ethical approval (BUHREC). Written informed consent was obtained from each participant and the respondent's information was kept completely private. Their right was respected throughout the study.

Results

The study recruited two hundred and seventy-five nursing mothers from the seven primary health centers in Calabar South Cross River State. However, only two hundred and fifty-four were completely filled and the data analyses were based on these numbers (254). The response rate was 92.3%.

Table 1 shows the mean age of the mothers was 28.90 ± 5.2 years. More than half (51.2%) of the mothers were between the ages of 29-38 years. The majority (81.9%) of the respondents were married. More than half (52.8%) of the respondents had secondary education. Most (60.2%) of the respondents were traders. Less than half (44.1%) of the respondents earned less than 20,000 thousand naira per month. The majority (98.8%) of the respondents were Christian. Less than half (44.9%) of the respondents had one child. More than half (52.8%) of the respondents had a secondary level of education. More than half (55.5%) of the respondent's spouses were businessmen. Less than half of the respondent's spouses earned between 20,000 to 50,000 thousand naira (See, Table 1). As shown in Table 2 above, the majority (81.5%) of the respondents correctly stated that postpartum depression is a mood disorder that occurs in some women after giving birth. The respondents correctly stated the following as symptoms of postpartum depression: severe mood swings (76.4%); excessive crying (70.1%); sadness (74.4%); hopelessness (72.2%); and unwillingness to care for or look at the baby (53.1%). Majority (75.2%) of the respondents correctly stated that poor support in caring for the baby could cause postpartum depression. Less than half (44.5%) of the respondents correctly stated that a previous history of depression could cause postpartum depression. More than half (53.9%)

of the respondents correctly stated that a family history of depression could cause postpartum depression.

Table 1: Socio-demographic Characteristics of the Respondents

Socio-demographic variables for consideration	Respondents in this study; N=254	
	Frequency(n)	Percentage (%)
Age (in years) mean age = 28.9 ± 5.42years.		
19-28	114	44.9
29-38	130	51.2
39-48	10	3.9
Marital Status		
Single	24	9.6
Married	214	85.6
Divorced	10	4.0
Widowed	2	0.8
Education Status		
No formal education	5	2.0
Primary	11	4.3
Secondary	134	52.8
Tertiary	104	40.9
Occupation		
Trader	153	60.2
Artisan	48	18.9
Housewife	25	9.8
Professional	25	9.8
Civil Servant	3	1.2
Income		
Less than #20,000	112	44.1
20,000-50,000	105	41.3
50,000-100,000	25	9.8
100,000-200,000	12	4.7
Religion		
Christianity	251	98.8
Islam	3	1.2
Number of Children		
One	115	45.3
Two	70	27.6
Three	52	20.5
Four and above	17	6.7
Occupation of Spouse		
Business man	141	55.5
Civil servant	61	24.0
Professional	44	17.3
Farmer	8	3.1

Table 2: Respondents' Knowledge of Postpartum Depression

Items	Respondents in this study = 254	
	Yes (%)	No (%)
Postpartum depression is a mood disorder that occurs in some women after giving birth.	207(81.5)*	47(18.5)
Severe mood swings are symptoms of postpartum depression	60(23.6)*	194(76.4)
Excessive crying is a symptom of postpartum depression.	178(70.1)*	76(29.9)
Feeling sad is a symptom of postpartum depression	189(74.4)*	65(25.6)
Feeling hopeless, or empty are symptoms of postpartum depression	183(72.0)*	71(28.0)
Not being willing to care for or look at the baby is a symptom of postpartum depression	135(53.1)*	119(53.1)
Poor support in caring for the baby can cause postpartum depression.	191(75.2)*	63(24.8)
Previous history of depression can cause postpartum depression.	113(44.5)*	141(55.5)
A family history of depression can cause postpartum depression.	117(46.1)*	137(53.9)

*Correct responses

Table 3 shows that less than half of the respondents strongly disagreed that if they were depressed they will feel ashamed to tell anyone about it. Above a quarter (35.4%) of the respondents strongly agreed that they believe it is dangerous to associate with a depressed mother. Less than half (37%) of the respondents strongly disagreed that they don't need to see a doctor if they feel sad after childbirth. Less than half (38.6%) of the respondents strongly disagreed that they don't need to tell anyone if they feel like harming their child. Almost half (47.2%) of the respondents strongly agreed that they would see a doctor if they happen to get depressed. Slightly more than half (50.8%) of the participants strongly agreed that they would advise a depressed mother to go to the hospital for treatment.

In Table 4, more than half (52.4%) of the respondents strongly disagreed that postpartum

depression is a spiritual problem and that women who experience it should go for deliverance. Less than half (43.7%) of the respondents strongly disagreed that it is shameful for a mother to display weakness when nursing her child. Less than half (37%) of the respondents strongly disagreed that only women with unstable minds could develop postpartum depression. Less than half (40.2%) of the respondents strongly disagreed that only women with low income can experience postpartum depression. Less than half (44.5%) of the respondents strongly disagreed that women who experience postpartum depression cannot be good mothers. Above a quarter (35.8%) of the respondents strongly agreed that postpartum depression is normal among women and does not require any treatment.

Table 3: Respondents' Attitudinal Disposition towards Postpartum Depression

Attitude Variables	Respondents in this study; N=254			
	SA (%)	A (%)	D (%)	SD (%)
If I am depressed I will feel ashamed to tell anyone about it	33(13.0)	51(20.1)	77(30.3)	93(36.6)*
I believe it is dangerous to associate with a depressed mother.	41(16.1)	25(9.8)	98(38.6)	90(35.4)*
I don't need to see a doctor if I feel sad after childbirth	52(20.5)	34(13.4)	74(29.1)	94(37.0)*
I don't need to tell anyone if I feel like harming my child.	63(24.8)	19(7.5)	74(29.1)	98(38.6)*
I will see a doctor if I happen to get depressed	120(47.2)*	73(28.7)	40(15.7)	21(8.3)
I will advise a depressed mother to go to the hospital for treatment.	129(50.8)*	72(28.3)	41(16.1)	12(4.7)

*Expected responses

Table 4: Respondent's Perception of Postpartum Depression

Perception Variables	Respondents in this study; N=254			
	SA (%)	A (%)	D (%)	SD (%)
Postpartum depression is a spiritual problem and women who experience it should go for deliverance.	26(10.2)	24(9.4)	71(28.0)	133(52.4)*
It is shameful for a mother to display weakness when nursing her child.	42(16.5)	25(9.8)	76(29.9)	111(43.7)*
Only women with unstable minds can develop postpartum depression.	32(12.6)	47(18.5)	81(31.9)	94(37.0)*
Only women with low income can experience postpartum depression.	34(13.4)	33(13.0)	85(33.5)	102(40.2)*
Women who experience postpartum depression cannot be good mothers.	38(15.0)	22(8.7)	81(31.9)	113(44.5)*
Postpartum depression is normal among women and does not require any treatment.	25(9.8)	29(11.4)	109(42.9)	91(35.8)*

*Expected responses

Table 5, shows that less than half (30.7%) of the respondents strongly disagreed about feeling useless sometimes. Only one quarter (24%) of the respondents strongly disagreed that they were not able to do so many things like their friends. More than half (53.1%) of the respondents agreed to having a positive attitude towards themselves. The majority (60.2%) of the respondents strongly agreed that they have so many good qualities. Few (18.1%) of the respondents strongly disagreed that they sometimes feel unsatisfied with themselves. Half (50.0%) of the respondents strongly agreed that they don't look down on themselves when they try to compare themselves to others.

Table 6 shows that less than half (45.3%) of the respondents strongly disagreed that exposure to social media has negative effects on their mental

health. Above a quarter (38.2%) of the respondents strongly disagreed that they tend to compare themselves with other mothers on social media and they put pressure on themselves. Less than half (31.9%) of the respondents strongly disagreed that adverts on television about motherhood make them feel they were not doing enough. Less than half (36.6%) of the respondents strongly agreed that social media helped them connect with other mothers and they received support from the online groups. Less than half (35.4%) of the respondents strongly agreed that they get valuable information about their mental health from social media or television.

Table 5: Respondents' Self-esteem

Self-esteem Variables	Respondents in this study; N=254			
	SA (%)	A (%)	D (%)	SD (%)
I do feel useless sometimes.	36(14.2)	75(29.5)	65(25.6)	78(30.7)*
I am not able to do so many things like my friends.	75(23.2)	83(32.7)	51(20.1)	61(24.0)*
I have a positive attitude towards myself.	135(53.1)	86(33.9)	19(7.5)	14(5.5)*
I have so many good qualities.	153(60.2)*	85(33.5)	11(4.3)	5(2.0)
Sometimes I feel unsatisfied with myself.	82(32.3)	85(33.5)	41(16.1)	46(18.1)*
I don't look down on myself when I try to compare myself to others.	127(50.0)*	74(29.1)	37(14.6)	16(6.3)

*Expected responses

Table 6: Media Influence on Postpartum Depression among Respondents

Media Influence Variables	Respondents in this study; N=254			
	SA (%)	A (%)	D (%)	SD (%)
Exposure to social media has negative effects on my mental health	28(11.0)	39(15.4)	72(28.3)	115(45.3)*
I tend to compare myself with other mothers on social media and I put pressure on myself.	18(7.1)	73(28.7)	66(26.0)	97(38.2)*
Adverts on television about motherhood make me feel I am not doing enough.	26(10.2)	82(32.3)	65(25.6)	81(31.9)*
Social media helped me connect with other mothers and I received support from the online groups.	93(36.6)*	78(30.7)	30(11.8)	53(20.9)
I get valuable information about my mental health from social media or television.	90(35.4)*	94(37.0)	23(9.1)	47(18.5)

*Expected Responses

Table 7, reveals that only (42.9%) of the respondents strongly agreed that they could count on their family/friends/spouse when things go wrong. Less than half (48.8%) of the respondents strongly agreed that they get the emotional help and support they need from their family/friends/spouse. More than half (51.2%) of the respondents strongly agreed that they could talk about their problems with their family/friends/spouse.

As shown in Table 8, the majority (75.6%) of the respondents reported that they delivered their last baby in the health centre. The majority (85.8%) of the respondents reported that the staff was friendly. The majority (81.1%) of the respondents reported that the health facility has medicine. Most (76.4%) of the respondents reported that they were delivered by skilled birth attendance. The majority (88.6%) of the

respondents reported that they got adequate attention when they were in labour. The majority (91.7%) of the respondents reported that they were able to settle all their bills. The majority (94%) of the respondents reported that they paid for delivery.

Table 9, shows that less than half (41.7%) of the respondents reported that they have never been anxious or worried for no good reason. Above a quarter (35.8%) of the respondents reported that they had never felt scared or panicky for no good reason. Less than half (31.5%) of the respondents reported that they had never felt overwhelmed. Less than half (39.4%) of the respondents reported that they have never felt so unhappy that they find sleeping difficult. almost half (46.1%) of the respondents reported that they never have been so unhappy that they have been crying. Less than half (42.5%) of the

respondents reported that they have never felt sad. Most (61%) of the respondents reported that they had never felt miserable. The majority

(92.5%) of the respondents reported that they have never thought of harming themselves.

Table 7: Social Support of Postpartum Depression on Respondents

Social Support Variables	Respondents in this study; N=254			
	SA (%)	A (%)	D (%)	SD (%)
I can count on my family/friends/spouse when things go wrong.	109(42.9)	94(37.0)	18(7.1)	33(13.0)
I get the emotional help and support I need from my family/friends/spouse	124(48.8)	105(41.3)	11(4.3)	14(5.5)
I can talk about my problems with my family /friends/spouse	130(51.2)	100(39.4)	10(3.9)	14(5.5)

Table 8: Respondents Enabling Factors (Health Infrastructure) of Postpartum Depression

Health Infrastructure Variables.	Respondents in this study; N=254	
	Frequency(n)	Percentage (%)
Where did you have your last baby?		
Health centre	192	75.6
At home	42	16.5
Traditional birthplace	20	7.9
Were the staffs friendly?		
Yes	218	85.8
No	36	14.2
Did they have all the medicine you need?		
Yes	206	81.1
No	48	18.9
Were you delivered by a skilled birth attendant?		
Yes	194	76.4
No	60	23.6
Did you get adequate attention when you were in labour?		
Yes	225	88.6
No	29	11.4
Were you able to settle all your bills?		
Yes	233	91.7
No	21	8.3
Did you have to pay a lot for the delivery		
Yes	240	94.5
No	14	5.5

Table 9: Respondents Level of Postpartum Depression

Postpartum Variables	Respondents in this study; N=254			
	Not at All (%)	Rarely (%)	Occasionally (%)	Very often (%)
Have you been anxious or worried for no good reason?	106(41.7)*	43(16.9)	71(28.0)	34(13.4)
Have you felt scared or panicky for no good reason?	91(35.8)*	70(27.6)	62(24.4)	31(12.2)
Do you feel overwhelmed?	80(31.5)*	55(21.7)	44(17.3)	75(29.5)
Do you feel so unhappy that you find sleeping difficult?	100(39.4)*	55(21.7)	62(24.4)	37(14.6)
Have you been so unhappy that you have been crying?	117(46.1)*	61(24.0)	47(18.5)	29(11.4)
Do you feel sad?	108(42.5)*	67(26.4)	48(18.9)	31(12.2)
Do you feel miserable?	155(61.0)*	55(21.7)	33(13.0)	11(4.3)
Has the thought of harming yourself ever occurred to you?	235(92.5)*	9(3.5)	6(2.4)	4(1.6)

*Expected responses

Table 10 shows the mean scores of variables obtained by the respondents. The level of predisposing factors (knowledge, attitude, perception and self-esteem) was computed on a 45-point rating scale, the mean score obtained by the participants was 26.57 ± 5.9 . The level of reinforcing factor (media and social support) was measured on a 16-point rating scale and the mean score derived was 9.25 ± 3.29 . The level of enabling factor (healthcare infrastructure) was computed on an 8-point rating scale and the mean score obtained was 6.42 ± 1.86 . The level of postpartum depression was measured on a 24-point rating scale and the mean score obtained was 7.54 ± 5.32 .

Table 11 shows the Pearson's Correlation Coefficients of the relationship between the dependent and independent variables which was tested. A significant relationship was observed between knowledge and level of postpartum depression ($r=0.56$; $p=0.000$), attitude and level of postpartum depression ($r=0.5$; $p=0.000$), perception and level of postpartum depression ($r=0.68$; $p=0.000$), self-esteem and level of depression ($r=0.18$; $p=0.004$); media influence and level of postpartum depression ($r=0.20$; $p=0.001$). However, there was no significant relationship between respondents enabling factor (health infrastructure) and level of postpartum depression ($r= -0.10$; $p=0.08$).

Test of relationship between variables

Table 10: Computed mean scores of variables obtained by the respondents

Variables	Maximum Points	Mean	S.D	Low (%)	Moderate (%)	High (%)
Predisposing factors	45	26.57	5.9	5.5	69.3	25.2
Reinforcing factor	16	9.25	3.29	47.6	-	52.1
Enabling factor	8	6.42	1.86	65.4	-	34.6
Level of Postpartum Depression	24	7.54	5.32	79.9	-	20.1

Table 11: Relationship between Respondents’ Predisposing, Environmental, Enabling factors, and Level of Postpartum Depression

Variable	Level of Postpartum Depression N=254	
	r	p value
Level of knowledge	0.56	0.000*
Perception	0.59	0.000*
Self-esteem	0.68	0.000*
Media	0.18	0.004*
Social support	0.20	0.001*
Enabling factor (Health infrastructure)	-0.10	0.08

*Significant at $p < 0.001$

Factors that Predict Respondents’ Postpartum Depression

The results of the logistic regression showed that social support was the only variable that was statistically significant with the level of postpartum depression. Respondents with a

high level of social support as compared with those with low social support had an odds of 0.8 times less likely to experience postpartum depression (Odds ratio=0.8; CI: 0.711- 0.98; $p=0.000$). This implies that respondents’ level of social support may influence the respondent’s experience of postpartum depression. (See Table 12)

Table 12: Logistic Regression Showing Predictor of Postpartum Depression

Variable	Level of Postpartum Depression			
	Respondents in this Study= 254			
	Odd ratio	p-value	Confidence Interval	
Level of knowledge	0.67	0.32	0.30	1.48
Attitude	1.7	0.08	0.92	3.21
Perception	1.53	0.18	0.82	2.80
Self-esteem	0.89	0.72	0.48	1.65
Media influence	0.93	0.34	0.82	1.07
Social support influence	0.83	0.03	0.71	0.98

Discussion of Findings

According to finding of this study, the respondents had a good level of knowledge of postpartum depression as many could correctly identify the causes, and symptoms of postpartum depression. Similar findings were reported by Ernestina (2018), Mulango et al., (2020), and Poreddi, Sundaram, Sai Nikhil, Kathyayani, and Rohin, (2020). However, Afolayan, Onasoga, Rejuaro, Yuasuf, and Onuabueke, (2016) reported moderate knowledge among their study participants, and Nnaka, (2018) and Abazie et al, (2021) reported a poor level of knowledge among participants. These differences in findings could be attributed to their level of education and difference in the study location.

The attitude of participants in this study revealed that more than half of the respondents had a negative attitude toward postpartum depression. This finding supports the result of Obioha et al, (2021) where most of the mothers in the study had negative attitudes toward postpartum depression. Mothers' attitudes to postpartum depression are also an important factor to consider in addressing the problem of postpartum depression. Postpartum depression is often seen as a display of weakness or a spiritual problem which makes many mothers have a negative attitude towards it.

The findings of this study showed that more than half of the respondents had a high perception of postpartum depression. This finding corroborates the reports of Adefolarin, & Arulogun, (2018) who reported positive perceptions among their respondents. Cultural

factors greatly influence the perception and experience of motherhood in many different cultures. A study conducted by Adefolarin, and Arulogun (2018) highlighted the impact of culture in shaping the perception of mothers regarding postpartum depression. According to the study's findings, some of the mothers perceived postpartum depression to be a spiritual attack. This corroborates the report of Adefolarin, & Arulogun (2018) and Ernestina (2018). In this study, a significant relationship exists between how postpartum depression is perceived and the level of postpartum depression.

According to the study's finding more than half of the respondents had high self-esteem. Also, a significant relationship exists between the respondent's self-esteem and postpartum depression. Mothers who had high self-esteem were less likely to experience postpartum depression as compared with mothers with low self-esteem. This finding corroborates the findings of Onyemaechi, Aroyewun, and, Ifeagwazi (2017) and Han and Kim, (2020) who reported that postnatal women with low self-esteem are more prone to depression. This could be because people who are depressed interpret information about themselves incorrectly, which lowers their self-esteem.

Media can play a role in reinforcing postpartum depression. Findings from this study reveal that more than half of the mothers had low media influence. The study by Henderson, Angie, Harmon, and Newman (2016) highlighted that the public discourse regarding mothers' experiences influences women's perceptions of themselves regardless of if they are practising perfectionistic parenting. This means what the media portrays of motherhood can influence

how mothers see themselves which can be negative or positive. This study revealed a significant relationship between media influence and experience of postpartum depression. This confirms the result of Ryan, (2020) who reported a significant relationship between social media and postnatal well-being which addressed negative mood, life satisfaction, self-compassion, and body image satisfaction.

Social support is important to the well-being of an individual and helps to reduce psychological distress. The postpartum period is a critical time when a mother typically requires additional help from the family. The changes in the responsibility, social obligations, and connections of a woman during this era are stressful, necessitating more care from family, companions, and life partners to avoid any psychological distress. According to study findings, more than half of respondents had high social support and social support predicted a mother's postpartum experience. Many studies have identified and reported social support as a major determinant of postpartum depression. In a study conducted by Atefeh, Fatemeh, Arash, and Marzieh (2019) poor social support lead to the occurrence of stressful life events experienced by women in the course of pregnancy, and the postpartum period significantly predicted postpartum depression. . Gremigni, Mariani, Marracino, Tranquilli & Turi (2011) examined the role of partner support expectations throughout the postpartum duration and reported that poor perceived partner support was a major determinant for PPD. Another study in China to examine the effects of family relationships and social support on postpartum women reported that social support had a direct relationship with postpartum depression (Weijing et al., 2022).

The healthcare system's infrastructure improves efficiency, patient-centeredness, timeliness, efficacy, and safety. According to the study's findings, the majority of respondents had a low enabling factor that can promote or encourage postpartum depression and no significant relationship exists between health infrastructure and the level of postpartum depression. However, the study by Shrivastava, Shrivastava, & Ramasamy (2015) reported that inefficient health infrastructure is a potential factor affecting postpartum depression among women. Inadequate healthcare infrastructure restricts

access and contributes to subpar care and outcomes, particularly among the most disadvantaged populations. The gaps in maternal health care affect access to labour and delivery services, and a lack of access to maternal health care can result in negative outcomes, including an increased risk of postpartum depression.

The prevalence of postpartum depression found in this study was 31.4%. This discovery is comparable to the prevalence ranges of Zimbabwe 16%–34.2% (January, Burns, and Chimbari, 2017). According to research done in South-Eastern Nigeria, the prevalence was 30.6%. (Ukaegbe et al., 2012), and another study in Lagos reported a prevalence of 35.6% (Adeyemo et al, 2020). The disparities in prevalence between the various studies and this study could be attributed to various factors, such as the screening instrument's cut-off score, the postpartum time during which the study was conducted, the geographical region (developed or developing countries), and the study designs.

Conclusion

The prevalence of postpartum depression was 31.4%. Most of the mothers had good knowledge of postpartum depression, a high perception of postpartum depression, high self-esteem (high predisposing factors), low media influence, high social support (high environmental factors), and low enabling factors of postpartum depression. Social support was a predictor of postpartum depression among this study population. It is advised that family members should be sensitized on the importance of supporting nursing mothers so as to improve their mental health which will reduce their likelihood of experiencing postpartum depression.

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