

## **Investigating the Incidence and Coping Mechanisms for Postpartum Depression in Women of Childbearing Age in Osun State**

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### **Abstract**

*This study investigated the incidence and coping mechanisms of postpartum depression among women of childbearing age in Osun State. This study employed a descriptive survey research. The research population comprised all women of reproductive age in Osun State, Nigeria. A total of 200 women were selected for sampling using a simple random sampling technique. Data collection was done using a researcher designed questionnaire. The questionnaire comprised 15 items assessing the incidence and 15 items evaluating the coping techniques. Each item was organized using a four-response format. The questionnaire items were evaluated for their validity by a panel of experts, while a reliability test of test re-test method on the questionnaire yielded reliability coefficient of 0.62. Data were analyzed using the percentage to answer research question one, while research question two was addressed using the mean and standard deviation metrics. The hypotheses were evaluated using Analysis of Variance (ANOVA) and independent t-test with a significance level of 0.05. The study found that the incidence of postpartum depression among women of childbearing age in Osun State was moderate. The coping mechanisms adopted by these women included avoiding activities that could trigger depression during the postpartum period, receiving financial support from family, as well as seeking help from religious and social groups, among other strategies. Therefore, it was recommended that health care authorities devise*

*strategies to formulate recommendations and implement measures aimed at preventing postpartum depression (PPD) in women of reproductive age.*

**Keywords:** Postpartum Depression, Childbearing Age, Coping mechanism

## **Introduction**

The first six weeks after childbirth are difficult for mothers, especially emotionally (Sylvén et. al., 2017). Mothers undergo physiological and psychological changes after birth. While maternal changes are generally positive for women, they require physical, psychological, and social adjustment, which can be difficult (Habel et. al., 2015). Psychological disorders after childbirth can cause "baby blues." Sadness or emptiness usually follow birth within a few days. Most women recover in 3–5 days from baby blues. If these feelings last longer than two weeks and are accompanied by sadness, hopelessness, or emptiness, postpartum depression may be present. Failure to act quickly and accurately may cause PPD. About 13% of first-time mothers develop postpartum depression within 4 weeks to 1 year (Qobadi, et. al., 2016).

The American Psychiatric Association (2013) defines PPD as depression that begins during or after childbirth. The DSM (2013) defines PPD as the onset of a Major Depressive Episode (MDE) four weeks after childbirth. PPD is non-psychotic depression. It affects women who have self-blaming thoughts, guilt over not caring for their newborn, low self-esteem, decreased interest in their surroundings, insecurity, and suicidal thoughts. This condition begins postpartum and lasts up to a year.

PPD is a significant public health issue that typically involves a combination of physical, emotional, and behavioral changes that occur after giving birth, which are influenced by the chemical, social, and psychological changes associated with becoming a parent. For the majority of women, the experience of giving birth, particularly with their first child, is a momentous life event that involves a mix of excitement, happiness, and frequently, anxiety. However, for women experiencing PPD, it can be extremely stressful and challenging. PPD is a severe yet manageable medical condition characterized by intense feelings of melancholy, apathy, or anxiety, along with alterations in energy levels, sleep patterns, and food. PPD poses dangers for both the mother and child, with around one in seven women experiencing this condition (Saharoy et. al., 2023). PPD typically arises within the initial month following childbirth.

Primiparous mothers, in particular, face a heightened susceptibility to depression during the postpartum period, especially within the first 90 days after delivery. Maternal inexperience contributes to the challenges new mothers encounter in their early interactions with their children. While PPD is no longer considered a separate condition in psychiatry, depression that occurs after childbirth is still significant for women. It increases the likelihood of various negative outcomes for children, women, and families. These include poor physical health and more frequent illnesses in infants, as well as delays in physiological, psychological, emotional, and psychomotor development during infancy and early childhood.

According to Evans et. al., (2017), behavioral counseling and anti-depressant therapy are the recommended treatment modalities for women with PPD. The World Health Organization (2013) stated that depression becomes the primary source of disease burden among women in the reproductive age group. Postpartum non-psychotic depression is a significant public health issue and the most prevalent complication among women of reproductive age, affecting around 10-15% of women after childbirth. The incidence of PPD in developing countries is twice as high as in the industrialized world. PPD has significant implications for the mother, her marital relationship, and her children, making it crucial to detect, treat, and prevent this disease (Shewangzaw et. al., 2018). Women may have heightened vulnerability throughout pregnancy and the postpartum period. Mothers frequently undergo significant biological, emotional, economical, and societal transformations during this period. Certain women may have a higher susceptibility to acquiring mental health issues, specifically sadness and anxiety.

A woman's first pregnancy is a major life milestone. Psychologically, the first pregnancy marks the transition into parenthood, a life-changing experience for both mother and child. It profoundly affects the mother-infant connection and child development. Parents' ability to adapt to new demands may temporarily damage the couple's relationship when the first kid is born (Darvill et al., 2016). First children often mark the transition to parenthood (TTP). The parents' ability to adapt may temporarily affect the couple's connection. Literature assumed that parenthood causes personal and relational upheaval. Parenting can improve some couple relationships but sometimes cause problems. Some couples learn to overcome problems, whereas others struggle (Condon et al., 2016). Physical, psychological, and relational changes during pregnancy may increase maternal emotional sensitivity. This sensitivity can cause "peripartum." depression. Onset

is a major depressive episode during pregnancy or in the weeks or months after birth. This illness causes melancholy, uneasiness, irritation, lack of positive emotions, limited enjoyment, interests, and vitality, reduced appetite, difficulties managing, fear of self-harm and baby injury, and suicidal thoughts. The perinatal period—the first year after birth—can cause anxiety and depression (Vismara et al., 2016).

Women with PPD are unhappy, irritable, and unable to manage their emotions. Anxiety, marital problems, home duties, and medical issues like sleep and eating disorders are common in people who dislike themselves and their children. Obsessive conduct is also possible. PPD can also impair women's ability to care for their children and cause them to stop breastfeeding. It is also important to detect first-time parents' PPD risk factors because children of mothers with PPD often develop unstable attachment bonds and social issues with their peers.

According to Roomruangwong et. al., (2016), several internal and environmental factors are linked to PPD. A delicate combination of these factors may increase vulnerability, especially in first-time mothers. Besides psychological risk factors such depression, antenatal depression, and pregnancy anxiety (Roomruangwong et. al., 2016). Emotional maturity and ability to cope with pregnancy and adjust after birth increase with maternal age (Fatmawati, 2015). Teenage pregnancy increases the risk of birth delivery issues include anemia, pregnancy-induced hypertension, and cephalopelvic disproportion. They also have a higher risk of having underweight babies. Adolescents fight acknowledging their pregnancies and hide them, resulting in PPD (Kurniasari & Astuti, 2015).

PPD has been linked to unstable marriages and a lack of mother-spouse support (Tani & Castagna, 2016). Stressful life situations or a lack of peer and healthcare professional support can lead to PPD (Scope et. al., 2016). A study by Indriasari (2017) found an inverse link between mother education and PPD risk. Higher-educated people are more realistic and proactive problem-solvers. Higher-educated people are expected to adapt better. Marital tension may also stem from PPD. The mother and her spouse may feel neglected, confused, unsupported, burdened, or exhausted. New parents may face ongoing difficulty due to these feelings.

The presence of a supportive husband and family has a significant correlation with the occurrence of PPD. The mothers' comfort during the birth process and postpartum period is attributed to the support provided by their husbands. This is further enhanced by their self-

confidence and self-efficacy, which is fostered by the support of others around them, particularly their husbands. Consequently, mothers typically experience the puerperium period. (Kusumastuti et. al., 2015). The assistance provided by husbands to mothers contributes to the enhancement of both the quality of life and mental well-being. Therefore, the absence of spousal support leading to an unintended pregnancy is a contributing factor for PPD (Shahry et. al.,2016). Receiving social support, particularly following childbirth, is crucial for women of all age groups in order to decrease the likelihood of experiencing PPD. Engaging in religious activities seems to provide a safeguard against postpartum depressive symptoms and aids in managing the challenges of early motherhood. PPD significantly affects the mother and poses long-term dangers to her mental well-being. Additionally, it detrimentally influences the physical, social, and cognitive development of children (Borra et. al., 2015).

The incidence of PPD is influenced by socioeconomic and cultural factors, and it differs among countries, ethnicities, and races. In addition to these factors, there are clinical aspects related to pregnancy and delivery that are associated with PPD. Complicated labor and birth, characterized by longer duration and increased pain, or medical intervention during delivery, can lead to negative consequences ranging from maternal distress to PPD. It has been observed that nulliparous women, who have not given birth before, tend to have lower self-confidence in their maternal role, and this lack of self-confidence has been linked to PPD. Therefore, labor and delivery complications can be particularly challenging for first-time mothers (Taherifard et. al., 2015).

Conclusively, some socio-demographic factors, such as being young, having a poor level of education, or having a low income, may be associated with an increased likelihood of experiencing PPD. Untreated PPD not only poses a risk to the mother's health and overall well-being, but also has the potential to negatively impact the baby's development, potentially leading to premature birth and low birth weight. PPD can lead to difficulties in forming a strong emotional connection with the newborn and can also contribute to disruptions in the baby's sleep and feeding patterns. Children born to mothers with PPD face an increased likelihood of experiencing cognitive, emotional, developmental, and language impairments, as well as difficulties in social interaction (Rubertsson et. al., 2015).

### **Purpose of the Study**

The main purpose of the study was to investigate the incidence and coping mechanisms for postpartum depression in women of childbearing age in Osun State

### **Research Questions**

The study provided answers to the following questions:

- i. What is the incidence of PPD among women of child bearing in Osun State?
- ii. What are the coping mechanisms of PPD among women of child bearing in Osun State?

### **Research Hypotheses**

The following research hypotheses were formulated to guide the study

**H01:** There is no significant difference in the incidence of PPD among women of child bearing based on age

**H02:** There is no significant difference in the incidence of PPD among women of child bearing based on educational level

**H03:** There is no significant difference in the incidence of PPD among women of child bearing based on religion

**H04:** There is no significant difference in the coping mechanisms of PPD among women of child bearing based on age

**H05:** There is no significant difference in the coping mechanisms of PPD among women of child bearing based on educational level

**H06:** There is no significant difference in the coping mechanisms of PPD among women of child bearing based on religion?

### **Methodology**

This study was a descriptive survey type of research. The population for this study consisted of all women of child bearing age in Osun State, Nigeria. Two hundred (200) women were sampled using a simple sampling technique of the fish bowl method. A researcher-designed questionnaire was used for data collection. The questionnaire contained 15 items on the incidence and 15 items on the coping mechanisms, all structured in a four-response type of Always (A), Sometimes(S), Rarely (R), Never(N). The face and content validity of the questionnaire items were

determined by some experts and yielded the reliability coefficient of 0.62 via test-retest method of reliability using Pearson’s Product Moment Correlation (PPMC) before the questionnaire was finally administered for data collection. The data collected were analysed using percentage to answer the research question one while research question two was answered using mean and standard deviation. Hypotheses were tested using Analysis of Variance (ANOVA) and independent t-test at 0.05 alpha level.

## Results

Out of 200 women of child bearing age sampled for this study, 59 (29.5%) of them were within the age range of 15 – 25years; 68 (34.0%) were within the age bracket 26 – 35years; 42 (21.0%) were within the age range 36 – 45years of age while 29 (14.5%) were of 46years and above. Also, 27 (13.5%) of the participants were primary school holders; 31 (15.5%) were secondary school holders; 73 (36.5%) were diploma holders while 69 (34.5%) were university Degree holders. In addition, 121 (60.5%) were Christians while 79 (39.5%) of them were Muslims.

## Answering of Research Questions

**Research Question One:** What is the incidence of PPD among women of child bearing in Osun State?

Participants’ responses on the incidence of PPD were subjected to percentage analysis. Given that there were 15 items structured in a two-response-type, the minimum, maximum and range scores were 15, 60 and 45. The range was therefore divided into 4 (i.e.  $45/3=15$ ). Thus, participants’ whose score fell within the range of 15 – 30, 31 – 45 and 46 – 60 were categorized as women of child bearing with low, moderate and high levels of PPD respectively

**Table 1: Incidence of PPD among women of child bearing age in Osun State**

Incidence of PPD	Score Range	Frequency	Percentage
High	46 – 60	44	22.0
Moderate	31 – 45	87	43.5
Low	15 – 30	69	34.5
Total		200	100.0

Table 1 shows that out of 200 women of child bearing sampled for this study, PPD was of high incidence among 44 (22.0%) of the women of child bearing age; it was moderate among 87(43.5%) of women of child bearing age while PPD was of low prevalent among 69 (34.5%) women of child

bearing age. Therefore, the incidence of PPD among women of child bearing age was moderate in Osun State.

**Research Question Two:** What are the coping mechanisms of PPD among women of child bearing age in Osun State?

Participants' responses were subjected to item-by-item analysis of mean. Given that the questionnaire on coping mechanisms of PPD among women of child bearing age were structured in a four-response-type, a cut-off score of 2.50 was used as the baseline for determining participants' responses. Therefore, items found with the grand mean scores equal or above 2.50 were affirmed as the coping mechanisms of PPD adopted by women of child bearing age in Osun State while items with mean scores below 2.50 were remarked otherwise.

**Table 2: Descriptive statistics of the coping mechanisms of PPD among women of child bearing age in Osun State**

N	Coping mechanisms of Post-Partum Depression	Mean	S.D.	Remark
1	I am encouraged to ignore depression during the post-partum period as a result of support received from clerics in my religion	2.91	1.21	Adopted
2	Religious participation has helped reduce my negative emotion as a result of support from members	3.62	1.19	Adopted
3	Financial support from my group remain an important coping strategy during the post-partum period	3.11	1.26	Adopted
4	Affection showed by my religious members ensures my happiness and distance me from depressed state	3.73	1.43	Adopted
5	I make do with the gifts provided by the religious group and this encourages my emotional state during my post-partum period	3.34	1.45	Adopted
6	I enjoy family support during my post-partum period irrespective of disagreement with my partner	3.81	1.71	Adopted
7	I am never neglected in terms of need as a result of the much needed support enjoyed from my family	2.87	1.56	Adopted
8	My siblings are ever supportive and this reduces my tendency to be depressed	3.52	1.29	Adopted
9	Tension between myself and my partner is reduced as a result of the presence and support from family members	2.62	0.93	Adopted
10	I never really enjoy support from my family and this affect my emotional state during the post-partum period	3.39	1.33	Adopted
11	Individuals in my society are ever supportive to women in their post-partum period	3.87	1.38	Adopted

12	I enjoy emotional supports from the society and this encourages me a lot	2.31	0.83	Adopted
13	The society provide avenues for providing finances to post-partum women and this limit my engagement in the depressed state	3.77	1.37	Adopted
14	We are provided with gifts and financial items by the society as support during the post-partum period	3.81	1.28	Adopted
15	Groups are often selected to check on women in their post-partum period and this encourages us against being depressed	3.02	1.19	Adopted

As revealed in Table 2, the mean scores of all the items are above 2.50. thus, the coping mechanisms of PPD among women of child bearing age in Osun State include women are encouraged to ignore depression during the post-partum period as a result of support received from clerics in my religion, religious participation has helped reduce negative emotion as a result of support from members, financial support from group member remain an important coping strategy during the post-partum period, affection showed by religious members ensures happiness and distance women of child bearing age from depressed state, gifts provided by the religious group and this encourages their emotional state during my post-partum period, family support during my post-partum period irrespective of disagreement with my partner, women are never neglected in terms of need as a result of the much needed support enjoyed from my family, siblings are ever supportive and this reduces my tendency to be depressed among many others

**Hypotheses Testing**

**H<sub>01</sub>:** There is no significant difference in the incidence of PPD among women of child bearing based on age

**Table 3: ANOVA summary of the difference in the incidence of PPD among women of child bearing based on age**

Variables	Sum of Squares	df	Mean Square	F	Sig.	Remark
<b>Between Groups</b>	431.747	3	143.916			<b>Not Rejected</b>
<b>Within Groups</b>	19373.361	196	98.844	1.456	0.072	
<b>Total</b>	19805.108	199				

\*not significance at p>0.05

As shown in table 3, the F-value of 1.455 with a p-value of 0.072 computed at 0.05 alpha level. Since the p-value of 0.072 obtained is greater than 0.05 level of significance, the null hypothesis one is retained. This thus implies that there was no statistically significant difference in the incidence of PPD among women of child bearing based on age in Osun State ( $F_{\{3, 196\}} = 1.456$ ,  $p > 0.05$ ).

**Ho<sub>2</sub>:** There is no significant difference in the incidence of PPD among women of child bearing age based on educational level

**Table 4a: ANOVA summary of the difference in the incidence of PPD among women of child bearing based on educational level**

Variables	Sum of Squares	Df	Mean Square	F	Sig.	Remark
<b>Between Groups</b>	553.628	3	184.543			
<b>Within Groups</b>	17373.361	196	88.639	2.082	0.044	<b>Rejected</b>
<b>Total</b>	17926.989	199				

\*significance at  $p < 0.05$

As shown in table 4a, the F-value of 2.082 with a p-value of 0.044 computed at 0.05 alpha level. Since the p-value of 0.044 obtained is less than 0.05 level of significance, the null hypothesis two is not retained. This thus implies that there is statistically significant difference in the incidence of PPD among women of child bearing based on educational level in Osun State ( $F_{\{3, 196\}} = 2.082$ ,  $p < 0.05$ ). Sequel to the establishment of a significant difference between the means, further test was carried out on the various combinations of means to find out where the difference occurred. The test was conducted using Duncan’s Post Hoc procedure at 0.05 alpha level. The Post Hoc is a statistical procedure used to determine which of the multiple groups actually made the difference.

**Table 4b: Duncan’s Post Hoc pair-wise comparisons showing the difference in the incidence of PPD among women of child bearing based on educational level in Osun State**

Educational Levels	N	Subset for alpha = 0.05	
		1	2
University Degree	69	27.8462	
Diploma	73	28.5372	
Secondary	31		32.8637
Primary	27		33.2863
Sig.		.284	.087

Means for groups in homogeneous subsets are displayed

- a. Uses Harmonic Mean Sample Size = 31.326
- b. The group sizes are unequal.

Table 4b revealed that the difference noted in Table 8a was contributed by women with the primary certificate followed by those with secondary given their respective mean scores had high incidence of PPD among women of child bearing age while women with university degree and Diploma degree had least incidence of PPD among women of child bearing age.

**H03:** There is no significant difference in the incidence of PPD among women of child bearing based on religion

**Table 5: t-test statistics showing the difference in the incidence of PPD among women of child bearing based on religion**

Religion	No	Mean	S. D.	df	t-value	Sig	Remark
Christianity	121	32.437	3.872	198	1.193	0.329	<b>Not Rejected</b>
Islam	79	33.131	3.327				

\*not significance at  $p > 0.05$

Table 5 shows that the t-value 1.193 is obtained with a p-value of 0.329 computed at 0.05 alpha level. Since the p-value of 0.329 is greater than 0.05 level of significance, the null hypothesis three is retained. Therefore, there is no statistically significant difference in the incidence of PPD among women of child bearing based on religion in Osun State ( $t_{\{198\}} = 1.193, p > 0.05$ ).

**H04:** There is no significant difference in the coping mechanisms of PPD among women of child bearing based on age.

**Table 6: ANOVA summary of the difference in the coping mechanisms of PPD among women of child bearing based on age**

Variables	Sum of Squares	df	Mean Square	F	Sig.	Remark
Between Groups	462.764	3	154.255	1.560	0.063	<b>Not Rejected</b>
Within Groups	19373.361	196	98.844			
Total	19126.989	249				

\*not significance at  $p > 0.05$

As shown in table 6, the F-value of 1.560 with a p-value of 0.063 computed at 0.05 alpha level. Since the p-value of 0.063 obtained is greater than 0.05 level of significance, the null hypothesis five is not retained. This thus implies that there is statistically significant difference in the coping

mechanisms of PPD among women of child bearing based on age in Osun State ( $F_{\{3, 196\}} = 1.560, p > 0.05$ ).

**Hos:** There is no significant difference in the coping mechanisms of PPD among women of child bearing based on educational level

**Table 7a: ANOVA summary of the difference in the coping mechanisms of PPD among women of child bearing based on educational level**

Variables	Sum of Squares	df	Mean Square	F	Sig.	Remark
Between Groups	524.742	3	174.914			
Within Groups	16422.361	196	83.787	2.088	0.039	Rejected
Total	19047.103	199				

\*significance at  $p < 0.05$

As shown in table 7a, the F-value of 2.088 with a p-value of 0.039 computed at 0.05 alpha level. Since the p-value of 0.039 obtained is less than 0.05 level of significance, the null hypothesis five is not retained. This thus implies that there is statistically significant difference in the coping mechanisms of PPD among women of child bearing based on educational levels in Osun State ( $F_{\{1, 196\}} = 2.088, p < 0.05$ ).

Sequel to the establishment of a significant difference between the means, further test was carried out on the various combinations of means to find out where the difference occurred. The test was conducted using Duncan's Post Hoc procedure at 0.05 alpha level. The Post Hoc is a statistical procedure used to determine which of the multiple groups actually made the difference.

**Table 8b: Duncan's Post Hoc pair-wise comparisons showing the difference in the coping mechanisms of PPD among women of child bearing based on educational levels in Osun State**

Educational Levels	N	Subset for alpha = 0.05		
		1	2	3
Primary	27	26.8361		
Secondary	31	27.1189		
University Degree	69		29.8637	
Diploma	73			32.5627
Sig.		.284	.087	.000

Means for groups in homogeneous subsets are displayed

- c. Uses Harmonic Mean Sample Size = 29.647
- d. The group sizes are unequal.
- e. The harmonic mean of the group sizes is used.

Table 8b revealed that the difference noted in Table 11a was contributed by women with the university degree holders followed by the diploma holders given their respective mean scores had high coping mechanisms of PPD among women of child bearing age while women with primary and secondary holders had least coping mechanisms of PPD among women of child bearing age in Osun State.

**H<sub>06</sub>:** There is no significant difference in the coping mechanisms of PPD among women of child bearing based on religion?

**Table 9: t-test statistics showing the difference in the coping mechanisms of PPD among women of child bearing based on religion**

Religion	No	Mean	S. D.	df	t-value	Sig	Remark
Christianity	121	33.892	3.527	198	0.797	0.281	<b>Not Rejected</b>
Islam	79	33.459	3.392				

\*not significance at  $p > 0.05$

Table 9 reveals that the t-value 0.797 is obtained with a p-value of 0.281 computed at 0.05 alpha level. Since the p-value of 0.281 is greater than 0.05 level of significance, the null hypothesis six is retained. Therefore, there is no statistically significant difference in the coping mechanisms of PPD among women of child bearing based on religion in Osun State ( $t_{\{198\}} = 0.797, p > 0.05$ ).

### Discussion of the Findings

The first finding from this study revealed that the incidence of PPD among women of child bearing age was moderate in Osun State. Given that PPD is a disabling but treatable mental disorder that represents one of the most common complications of childbearing, it is a universal mental illness that affects women of any age, race, or social background, it is the responsibility of healthcare professionals to identify women who are at risk of developing this disease. In Nigeria, certain factors may serve as deterrents to PPD, The communal-living lifestyle found especially in rural settings enables social support and companionship from members within the community, This gives a sense of comfort and relief to women, from the challenges of pregnancy and delivery In addition, the traditional naming ceremony that is typically celebrated on the baby's eighth day

of life in some African cultures, enables mothers to maintain high spirits in the first few days after delivery. This result is in line with Wisner et. al., (2010) whose study submitted that depression that begins later than 4 weeks after delivery or does not meet the full criteria for a major depressive episode may still cause harm and require treatment. In the same vein, Gaynes et. al., (2016) who found that depression occurs within 4 weeks after childbirth, or 3 months, 6 months, or up to 12 months after childbirth while Munk-Olsen et. al., (2016) found that the estimated incidence of PPD ranges from 6.5 to 12.9% or even higher in lower-income and middle-income towns. Meanwhile, Wisner et. al., (2013) showed the increased rates of depression among new mothers, whereas others have not, Symptoms of PPD often include sleep disturbance (beyond that associated with the care of the baby), anxiety, irritability, and a feeling of being overwhelmed, as well as an obsessional preoccupation with the baby's health and feeding.

The second finding of this study showed that the coping mechanisms of PPD among women of child bearing age in, Osun State include encouragement to ignore depression during the post-partum period as a result of support received from clerics in my religion, religious participation has helped reduce negative emotion as a result of support from members, financial support from group member remain an important coping strategy during the post-partum period, affection showed by religious members ensures happiness and distance women of child bearing age from depressed state, gifts provided by the religious group and this encourages their emotional state during my post-partum period, family support during my post-partum period irrespective of disagreement with my partner, women are never neglected in terms of need as a result of the much needed support enjoyed from my family, siblings are ever supportive and this reduces my tendency to be depressed among many others. This outcome corroborates Yazici et. al., (2015) who found that treatment of antenatal depression is important for the prevention of PPD. However, McBride and Kwee, (2012) submitted that family members are also affected, depression and psychological imbalance in the mother in the first weeks and months after delivery can weaken the mother-child relationship and even cause subsequent behavioral problems in the child, Lack of adjustment also damages the family relationships in other ways, after childbirth, parental duties and responsibilities are increased and consequently, their leisure time is decreased, so that couples become exhausted, and if they are unable to manage the situation, the relationship becomes tense, and even the sexual relations may be disrupted

Findings of this study indicated that there was no statistically significant difference in the incidence of PPD among women of child bearing based on age in Osun State. This signifies that PPD had no statistical difference among women of child bearing regardless of their age. Also, findings obtained from this study showed that there is a statistically significant difference in the incidence of PPD among women of child bearing based on educational level in Osun State. Thus, women with the primary certificate followed by those with secondary given their respective mean scores had high incidence of PPD among women of child bearing age while women with university degree and Diploma degree had least incidence of PPD among women of child bearing age.

In addition, finding of this study revealed that there is no statistically significant difference in the incidence of PPD among women of child bearing based on religion in Osun State. These findings substantiate Leach, bowles, Jansen and Gibson (2017) whose study revealed that PPD occurred among women of bearing age regardless of their age ranges and religion while education plays an important role in preparing individuals for changes that may occur with their health, the prenatal periods is filled with opportunities for mothers to learn about their changing bodies, growing baby, delivery process, and caring for a new born, this type of education can help a woman become more confident, have improved skills and more appropriate attitude in handling situations encountered during the stages of pregnancy and being a new mother.

Furthermore, finding of this study showed that there is no statistically significant difference in the coping mechanisms of PPD among women of child bearing based on age in Osun State. More so, finding of this study showed that there is a statistically significant difference in the coping mechanisms of PPD among women of child bearing based on educational levels in Osun State. Women with the university degree holders followed by the diploma holders given their respective mean scores had high coping mechanisms of PPD among women of child bearing age while women with primary and secondary holders had least coping mechanisms of PPD among women of child bearing age in Osun State. This corroborates Indriasari (2017) whose findings indicated that the higher the maternal education level, the lower the risk of experiencing PPD, educational level affects the effectiveness of the mother's coping strategy, highly educated people will be more realistic and more active in solving problems than those with low educational level, people with higher level of education are expected to be able to adapt. The last finding of this study revealed

that there is no statistically significant difference in the coping mechanisms of PPD among women of child bearing based on religion in Osun State.

### **Conclusion**

Based on the findings of this study, it can be concluded that postpartum depression is moderately prevalent among women of childbearing age. To effectively manage or prevent its occurrence, women are advised to disregard feelings of depression during the postpartum period. This is because they receive support from religious leaders and their participation in religious activities helps reduce negative emotions through the support of fellow members. Additionally, financial support from group members is an important coping strategy during the postpartum period. The affection shown by religious members also contributes to the overall happiness and helps keep women of childbearing age away from a state of depression, among other factors.

### **Recommendations**

1. Health care authorities should develop strategies to design recommendations and actions to prevent PPD among women of child bearing age
2. There should be programs organized for women in order to be aware of PPD, if this is done, it helps to prevent it and also make women aware of what is happening to them and helps them to speak out if such situation should occur, having someone to talk to also helps prevent PPD, Isolation breeds anxiety
3. Family support should always be provided for women during post-partum period
4. Social support should always be provided for women to foster their mental health and to decrease anxiety and desperation that are prone to set in during the postpartum period
5. Given that religion is a source of support for dealing with problems such as prayer, honesty, belief in God, and reading religious books, create a feeling of internal tranquility among the women during the postpartum period.

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