*IOSR Journal of Nursing and Health Science (IOSR-JNHS)*
*e-ISSN: 2320–1959.p- ISSN: 2320–1940 Volume 14, Issue 6 Ser. 3 (Nov. – Dec. 2025), PP 24-33*
*www.iosrjournals.org*

# Postpartum Depression Among Mothers Of Preterm And Term Infant In Irrua Specialist Teaching Hospital (ISTH) Irrua, Edo State

Odianosen, Veronica Jegbefumen
*Department Of Nursing Sciences*
*Mudiame University, Iruua, Edo State, Nigeria*

Isuekebhor Mabel
*College Of Nursing Services*
*Irrua Specialist Teaching Hospital Edo State.*

Eremen Felicia Abiodun
*College Of Nursing Services,*
*Irrua Specialist Teaching Hospital, Irrua.*

***Abstract***
*Preterm and term birth nursed in special baby care unit can be exceptionally tricky to mothers and can influence the prosperity of the mothers and can result in postpartum depression. The aim of the study is to get the level of postpartum depression of mothers whose newborn child were nursed in special baby care unit of Irrua Specialist Teaching Hospital, Irrua, Edo state. A descriptive cross sectional study design was utilized in this study. The study was conducted at the special baby care unit, pediatric outpatient office and post natal ward of the hospital. Populace of mothers who had preterm/term babies who were nursed in SCBU inside the last one-year frame are the populace for the study. A sample of 183 women were recruited for this study. Data were collected through questionnaire which incorporate social demographic data of mother and newborn children, segment, Edinburgh post natal depression scale and state-trait anxiety score. Information was examined using frequency,percentage (%), mean(x) and standard deviation (S.D). T-test for two autonomous sample was used to distinguish between the two sub groups mothers of preterm and mothers of term infant. The result of the study appears that mothers of preterm and term infant have low level of postpartum depression. There is a high level of anxiety of mothers of preterm and term babies in ISTH Irrua as revealed by the study;it was moreover observed that the sex and age of infant at birth have importance impact on the anxiety and depression of the mothers. Psychological trouble ought to be tended to in post-partums mothers in any case of full term or preterm birth as a fundamental health right of a lady who has delivered. The health care team in new born unit and in postnatal wards ought to be sensitized on how to recognize early signs of mental disturbance among mothers of preterm newborn children in SCBU.*
***Keywords:*** *Depression, Infant, Mother, Prematurity.*

---

Date of Submission: 03-12-2025 Date of Acceptance: 13-12-2025

---

## I. Introduction

Post-partum depression (PPD) is the feeling of extreme temperament swings, fatigue and sense of sadness which make it troublesome for the mother to care for her child or herself. It is distinctive from infant blues which is common with modern mothers, characterized with mellow sadness, worries or exhaustion which blurs away with time (Adeyemo et al., 2020). Post-partum depression may be a genuine disorder that can be overcome through treatment (Pietranegelo, 2016). Postpartum depression is changes in physical, mental and emotional behavioral after childbirth or within four weeks post-partum (Smith, 2020). The indications of post-partum depression shifts from one individual to another; feeling of pity, crying a lot without reason depleted but cannot rest or resting too much; unexplained aches, pain or ailment, trouble recalling things, lack of concentration to make straightforward choices; lack of interest in things one used to appreciate; feeling to pull back from individuals that can offer assistance to the person and needing to elude from everybody and everything and thoughts to hurt herself or somebody else (Johnson, 2019). Mothers more often than not encounter increased rate of depression and anxiety following the birth of preterm infant.

A few ladies accepted that childbirth can be upsetting and can modify their emotional well-being of mothers (Carmen, 2016). Post-partum depression (PPD) could be a change within the emotional or mental behavior amid the first four weeks of post-partum period (Shitu, 2019). Undetected PPD can have unfavorable long-term impacts on the mother, children and family, and can contribute to emotional, behavioral, cognitive and interpersonal issues to the children later in life (Petit, 2016). Studies have too shown that untimely birth more often than not results in psychological trouble includes side effects of anxiety and depression for mothers (Carson, 2015; Ishola, et al 2018). Mothers might have negative sees of their perinatal or postnatal period. It is detailed that mothers with positive encounters after a preterm birth have a more successful mother-child communication than those mothers who have had negative encounters (Hall, 2015).

Guardians of preterm newborn children confront different challenges and sudden changes within the process of bonding with their babies. Bonding with newborn children starts before birth and develops after it, but in case the birth happens sooner than anticipated or even as well early, the normal bonding process may be influenced. Goldberg and Divitto (2015) have illustrated that a long stay in hospital have a disturbing impact on the bonding process between mother and newborn children, in spite of the fact that within the last decade the Neonatal Intensive Care Units (NICU) have experienced a few changes to encouraging the presence of guardians amid the hospitalization of their babies.

The physical environment of NICU is characterized by observing equipment, tubes and wires connected to newborn child, noises, and chemical scents. Be that as it may, the major stretch experienced by guardians is related to the separation from their infant and to the loss of their parental role as they had already envisioned it. As recommended by Mutua (2020) the sentiments of separation of mothers of preterm newborn children are especially at high risk for poor postpartum functioning with rates of depression extending between 14% –27% (Centers for Disease Control and Prevention CDC, 2008). Studies have appeared that mothers with preterm newborn children admitted in Neonatal Intensive Care Unit (NICU) are 40% more likely to create PPD compared to common population (Mutua et al., 2020),

Different studies looking at psychological maladjustments in mothers with preterm newborn children in NICU have reported higher rates of PPD extending between 28-70% compared to mothers of sound full-term newborn children (Cox et al, 2017). More later studies have detailed increased levels of intense stress and high levels of anxiety in mothers of preterm newborn children in NICU. PPD has gotten impressive research consideration whereas postnatal anxiety (PNA) has been generally ignored (Agbaje et al, 2017). Depressed and anxious moms have communication challenges which have a negative effect on the mother and family as she finds it troublesome to complain to health staff. Preterm newborn children in specific appear more delicate to the mother's poor mental state compared to full term newborn children.

Maternal depression influences the preterm and term newborn child cognitive development and behavioral result within the near future (Poehlmenn, 2012). Anxiety and depression of mother can be hindering to the start of breast feeding and mother child attachment process which begins exceptionally early in life. Early mother - newborn child interaction following term birth are exceptionally imperative to child's development (Mutua 2020). Preterm newborn child is inclined to cognitive, emotional and behavioral challenges due to their separation from mothers into special child care unit or neonatal intensive care unit which can last up to eight to twelve weeks (Amiegheme et al, 2016). Therefore, this study is to get the level of postpartum depression of mothers whose newborn child were nursed in special baby care unit of Irrua Specialist Teaching Hospital, Irrua, Edo state.

## II. Literature Review

**Post-Partum Depression**

Post-partum depression is sort of mental disorder characterized by persistent depressed disposition or loss of interest in exercises causing impedance in standard of living amid six weeks of child birth. Postpartum depression (PPD) could be a complex blend of physical, emotional and behavioral changes that happen in a few ladies after child birth or within 4 weeks of delivery. It is ordinarily not dependent on length of time between delivery but on seriousness of the depression (Smith, 2020).This is distinctive from "baby blues" which is common among new mothers to feel a little sad, stressed or exhausted after child birth . As numerous as 80 percent of mothers have these feelings for a week or two after childbirth and there after overcome. Postpartum depression may be a lot more effective and keeps going longer than infant blues. It follows around 15% of births in first-time mothers and babies with health conditions like preterm and sick neonate.It can cause extreme dispositions, fatigue and sense of sadness. The concentrated of those sentiments can make it hard to care for their babies or themselves. Post-partum depression should not be taken delicately because it may be a serious disorder, but it can be overcome through treatment. (Pietrangelo, 2016).

**Causes of Post-partum Depression in Mothers**

The cause of post-partum depression is not known but there are predisposing factors. The following things might increase your risk: Previous depression or other mood disorder, family history of depression, serious health problems, recent stress, such as divorce, death or serious illness of a love one unwanted or difficult pregnancy, having twins, triplets or other multiples, having your baby born prematurely or with health problems, being in an abusive relationship, isolation or lack of emotional support poor diet, drug or alcohol is use, sleep deprivation and exhaustion.

**Symptoms of Post-partum Depression**

Indications of post-partum in mothers include the following; sleep deprivation, loss of appetite, strongly irritability and trouble bonding with the child. Temperament may incorporate outrage, anxiety and guilt, misery, loss of interest or joy in activities, temperament swings or panic attacks. Behavioral exercises may incorporate crying, irritability or restlessness. Entire body; weariness or loss of craving leading to weight loss or gain. Cognitive; need of concentration or undesirable thoughts (Smith, 2020).

**Level of Post-partum Depression in Mother of Preterm/Term babies**

Study carried out appears that 43.3% of mothers of preterm babies developed post-partum depression (Manthar, 2018). PPD in mothers caring for preterm newborn children seem not be clarified with regard to child rearing stress and mother-infant interaction troubles. Mothers who had delivered twins or a newborn child with anomalies, or had a stillbirth has the inclination to develop postpartum depression. Postpartum depression is considered a genuine public health issue due to its annihilating impacts on mother, families and children. The relationship between preterm birth and post-partum depression may be clarified by early maternal stress and mother-infant interaction among mothers of preterm newborn children.

The stress that result from preterm birth leads to intense care and possible delayed physical separation within the Neonatal intensive care unit has adverse psychological impact within the mother which can show in anxiety or depression or both. Delivery of preterm can have a long impact on mother and increased parental stress which can last forever in the event that not well overseen.

**Theoretical Framework**

This study is anchor on the theory of self-regulation propounded by Johnson and Leventhan in 1999 on how patients cope with the events that occur during physical illness resulting in stressful situation. Self- regulation theory (Johnson and Leventhal 1997, 1983) states that the provision of concrete objective information to an individual undergoing a stressful situation will facilitate the formation of a cognitive schema (That is mental structure which the individual uses to organize knowledge and guide cognitive processes and behavior) to handle the real-life event. Knowing what to expect in the situation enables the individual to cope more effectively with the stressor through increased understanding, predictability and confidence in the ability to deal with the stressful event. Self-Regulation Theory as a guiding Framework for teaching parents.

Self- regulation theory has four assumptions that are linked to information processing theory used to control our responses and behaviors when facing traumatic or stressful situation and they are in the following ways How we perceive and interpret stressful experience e g; chronic illness. How we take the experience information and develop a cognitive picture or scheme that will guide us for real life experience as to what signs or sensations to look for, what action to take and what we might expect to see from the actions. This process also helps us to develop confidence in our abilities to handle the experience if and when it occurs. The information schema is organized from concrete level to abstract ones .For example learning how to administer insulin to children with type 1 diabetes or feeding preterm and Knowing what to expect, how to respond to the intended experience through knowledge and technical skill competence gained this will decrease any discrepancy of the expected event and reality, thus increasing parental confidence and decreasing associated fear and stress.

The parent role information and activities in the COPE (Creating Opportunities for Parent Empowerment) program are designed to remove the barriers during hospitalization so that parent can engage in their infant's care in a developmentally sensitive manner. Active engagement in their child's care reduces parental anxiety and depression as a result of feeling less helpless and more empowered during the stressful situation. The application of self-regulation theory to anxiety and depression of mothers of preterm/term babies providing information to mother on what to expect in the care of preterm/term babies through audio taped and written information will help to achieve the following: Promote positive maternal beliefs about what to expect in their preterm\term and their ability to care for them. Reduce maternal stress related to hospitalization. Decrease mothers anxiety and depression surrounding the neonatal intensive care unit experience.

**Empirical Review**

Adeyemo *el at.* (2020) conducted a study on the prevalence of postpartum depression and its predictors among postnatal women in Lagos State. Using descriptive cross-sectional study, the work was conducted among 250 mothers in Eti-Osa Local Government Area of Lagos State, Nigeria, attending six Primary Health Care centers for infant immunization at six weeks post-delivery. Data were collected using a pretested semi-structured interviewer administered questionnaire which included the Edinburgh Postnatal Depression Scale. Chi-square and logistic regression analyses were used to determine associations and predictive relationships between various factors and the presence of postpartum depression. The level of significance was set at <0.05. The result showed that prevalence of postpartum depression was 35.6%. Multiparty, delivery by cesarean section, mother being unwell after delivery, and not exclusively breastfeeding the baby were the factors linked with postpartum depression. Following multiple logistic regression, having postpartum blues (p=0.000; OR=32.77; 95%CI=7.23-148.58)., not getting help with caring for the baby (p=0.008; OR=2.64; 95%CI=1.29-5.42), experiencing intimate partner violence (p=0.000; OR=5.2; 95%CI=2.23-11.91) and having an unsupportive partner (p=0.018; OR=2.6; 95%CI=1.17-5.78) were identified as predictors of postpartum depression.

Ishola, el at. (2018) examined depressed mood, with less attention paid to postpartum anxiety and suicidal ideation in Lagos State, the study made use of an ex-post facto as a cross-sectional survey approach structured and questionnaire to collect information from the study participants. This study developed and validated a tool to measure postpartum depression among mothers of preterm babies. The content validity of the 63 items was determined through the use of knowledge expert assessment from the clinical interviews and a pilot survey ($n$ = 121) the mothers of Preterm Babies Postpartum Depression Scale was developed. The Mothers of Preterm Babies Postpartum Depression Scale and the Edinburgh Postnatal Depression Scale questionnaires were completed by 152 mothers who delivered preterm babies at Massey Street Children's Hospital, Lagos. Data were analyzed with use of confirmatory factor analysis, principal component analysis, and Cronbach's alpha at the $P \leq$ 0.05 level of significance. The new scale demonstrated a reliability (α) of 0.91. Construct validity with exploratory factor analysis (Kaiser-Meyer-Olkin measure 0.70) yielded three dimensions of cognitive and emotional difficulty (α = 0.92), hopelessness and suicidal ideation (α = 0.93), and physiological distress (α = 0.71). Result showed that a good fit: 18 degrees of freedom; goodness of fit index 0.97; adjusted goodness of fit index 0.93; and root mean square error of approximation 0.04. Convergent validity was established with the Edinburgh Postnatal Depression Scale ($r$ = 0.66, $P$ = 0.00).

In the study by Chinawa,*el at* (2016), they examined postpartum depression as an uncommon and frequently undocumented issue that impacts negatively on maternal and child health in Enugu State. A total sample of 214 mothers attending postpartum clinics were also carried out in this study. The study was carried out among mothers who attended postpartum clinics from two teaching hospitals and three private hospitals all in Enugu metropolis. The instrument employed for data collection was a structured self-administered questionnaire developed from the Edinburgh Postnatal depression Scale. The families were assigned socio-economic classes (SEC) using the recommended method (modified) by Oyedeji. The objectives of this study was therefore aimed to highlight the pattern and prevalence of post-natal depression among mothers in Enugu, south east Nigeria. A total of 214 mothers attending postpartum clinics were recruited in this study. The prevalence of postpartum depression from this study is 22.9%. The result revealed that There are no significant association between socio-demographics of mother and depression, age (p= 0.556), educational level (p= 0.667), occupation (p=0.494), parity (p= 0.823) and mode of delivery (p= 0.760).

Mutua*,el at* (2016) examined the proportion of comorbid postpartum depression and anxiety among mothers of preterm infants receiving intensive care in newborn unit at Kenyatta National Hospital (KNH), in Kenya, compared to mothers of full-term healthy infants attending Mother Child Health Clinic (MCHC) at Umoja Health Center (UHC) in Nairobi, Kenya. The study was carried out to establish the association between comorbid anxiety and depression among mothers with pre-term babies and identify independent predictors of comorbid depression and anxiety. A comparative study embedded within a cross-sectional design was carried out, where 172 mother-infant dyads; 86 mothers from with term deliveries and 86 with pre-term deliveries were recruited. The participants completed the self-reported Socio-demographic questionnaire, Edinburgh Postnatal Depression Scale (EPDS), Kessler's 10 (K10) and Patient Health Questionnaire-4 (PHQ-4) to screen for levels of depression, psychological distress and anxiety. Chi-square tests were used to establish the association between comorbid depression and anxiety and socio-demographics. Multivariate logistic regression was used to assess the independent predictors of comorbid depression and anxiety. Results revealed that overall proportion postpartum depression as measured by EPDS (>=13) was 44.2%, of these 77.6% were mothers with pre-term babies. Similarly, out of 35.1% who screened positive for anxiety 75% (n=45) of them were mothers with pre-term babies. Out of the 26.2% of mothers with psychological distress 75.6% (n=34) of them were mothers with pre-term babies. A total of 43 (25%) screened positive for comorbid depression and anxiety of these 83.7% were (n=36) mothers with pre-term babies. After controlling for all significant associations at bivariate level: the odds of comorbid depression and anxiety was about 6 times more among the mothers with pre-term birth as compared to

full term births (A.O.R=5.75; p=0.002), 4.76 times more (A.O.R=4.76;\ p=0.043) among mothers who reported intimate partner violence as compared to those who did not and 5.95 times more among mothers who screened positive for psychological distress (A.O.R=5.95; p<0.001) as compared to those who screened negative.

## III. Methodology

This study descriptive survey research design. The population for this study were gathered from the delivery registers of labour ward and admission registers from special care baby's unit over a period of 12 months because the register is one of the most reliable sources of data for descriptive analysis. The population for this study focuses on mothers who gave birth to preterm/term babies within period of one year whose babies were nursed in special baby care unit of ISTH, Irrua. Mothers of term babies were 700 and mothers of preterm babies are 546 total 1246. The sample size for the study was determined using Cochran equation (Cochran, 1977). Therefore, the sample size of the study is 185. The convenient sampling technique was utilized in selecting respondents for the study. The instrument was adapted from the Edinburgh postnatal depression scale (EPDS). The EPDS is a 10 questions self-rating report with good validity. It assesses post-partum depression symptoms the mothers might have experienced during the period of hospitalization. The 10-items are rated on a various four (4) point response scales. The scale ranging from "Yes most of the time" – 4 to "No never" -1; "Yes quite a lot" – 4 to "No not at all" -1 and many others. With a highest response of 4 and lowest of 1 point, an overall mean score of 2.5 or higher was considered as high depression while a score or 1-2.49 was considered as low indication of depression. Descriptive and inferential statistics was employed. Descriptive such as frequency count, percentages (%), means ($\bar{X}$) and standard deviation (S.D) was used to analyse the research questions while tables and charts was used to orderly present and illustrate the result. On the other hand, T-test and logistic regression analysis was used to test hypotheses.

## IV. Result And Discussions

**Table 1: Results Mother's Demographic Data**

| Item | Classification | Frequency | Percentage |
|---|---|---|---|
| **Mothers Age** | 18 – 25 | 39 | 12.1 |
| | 25 – 30 | 115 | 35.6 |
| | 30 - 35 | 141 | 43.7 |
| | 35 – 40 | 28 | 8.7 |
| | | | |
| **Marital Status** | Married | 283 | 87.6 |
| | Separated | 24 | 7.4 |
| | Single | 16 | 5.0 |
| | | | |
| **If Married** | Monogamy | 224 | 79.2 |
| | Polygamy | 59 | 20.8 |
| | | | |
| **Educational Status** | Non-Formal | 21 | 6.5 |
| | Primary | 19 | 5.9 |
| | Secondary | 139 | 43.0 |
| | Tertiary | 144 | 44.6 |
| | | | |
| **Occupation** | Applicant | 22 | 6.8 |
| | Student | 34 | 10.5 |
| | Housewife | 58 | 18.0 |
| | Self-Employed | 209 | 64.7 |
| | | | |
| **Religion** | Christianity | 207 | 64.1 |
| | Islam | 64 | 19.8 |
| | Traditional | 52 | 16.1 |
| | | | |
| **Regular Monthly income** | Yes | 189 | 58.5 |
| | No | 134 | 41.5 |

Table 1 presents the results of the mother's demographic data. The majority 141(43.7%) of the respondents were between the age of 30 – 35; 115(35.6%) of the respondents were between the age bracket of 25 – 30 years; 39(12.1%) of the respondents were between the age of 18 – 25 years and 28(8.7%) were between the age of 35 – 40 years. The marital status of mothers revealed that 283(87.6%) were married, 24(7.4%) were separated and 16(5.0%) of the respondents were single. Out of the 283 that are married, 224(79.2%) were from monogamous families and 59(20.8%) were from a polygamous family.

The analysis of the educational qualification of the mothers revealed that 21(6.5%) had non-formal education, 19(5.9%) had primary education, 139(43.0%) had Secondary Education and 144(44.6%) had Tertiary

Education. The analysis based on occupation revealed that 22(6.8%) were applicants, 34(10.5%) were students, 58(18.0%) were Housewife and 209(64.7%) were Self-employed. In addition, 207(64.1%) of the mothers were Christian Religion, 64(19.8%) were Islamic Religion and 52(16.1%) were into Traditional Religion. Furthermore, 189(58.5%) of the respondents reported that they do have monthly income and 134(41.5%) of the respondents do not.

**Table 2: Results Infant's Demographic Data**

| Item | Classification | Frequency | Percentage |
|---|---|---|---|
| **Sex** | Male | 171 | 52.9 |
| | Female | 152 | 47.1 |
| | | | |
| **Was the child Nursed in a special care baby unit?** | Yes | 201 | 62.2 |
| | No | 122 | 37.8 |
| | | | |
| | Mean | Minimum | Maximum |
| **Age (Weeks)** | 35.54 | 26 | 40 |
| **Weight of Child at birth (in kg)** | 2.60 | 1.00 | 2.60 |

The results of the Infant demographic data were presented in Table 2. 171(52.9%) of the infant were male and 152(47.1%) of the infant were female. Also, 201(62.2%) of the infant were nursed in a special care baby unit and 122(37.8%) were not.

**Table 3: Level of depression of mothers of preterm and term babies in ISTH, Irrua**

| Statement | Option | Freq. | Percentage | Mean |
|---|---|---|---|---|
| **I have been able to laugh and see the funny side of thing** | As much as I always could | 88 | 27.2 | 2.16 |
| | Not quite so much now | 113 | 35.0 | |
| | Not so much | 103 | 31.9 | |
| | Not at all | 19 | 5.9 | |
| | | | | |
| **I have looked forward with enjoyment to thing** | As much as I ever did | 122 | 37.8 | 1.94 |
| | Rather less than I used to | 110 | 34.1 | |
| | Less than I used to | 80 | 24.5 | |
| | Hardly at all | 11 | 3.4 | |
| | | | | |
| **I have blamed myself unnecessarily when things go wrong** | Yes most of the time | 85 | 26.3 | 2.23 |
| | Yes some of the time | 117 | 36.2 | |
| | Not very often | 83 | 25.7 | |
| | No never | 38 | 11.8 | |
| | | | | |
| **I have been anxious or worried for no good reason** | No, not at all | 41 | 12.7 | 2.55 |
| | Hardly ever | 86 | 26.0 | |
| | Yes, sometimes | 174 | 53.9 | |
| | Yes very often | 22 | 6.8 | |
| | | | | |
| **I have felt scared in panicky for no very good reason** | Yes quite a lot | 47 | 14.6 | 2.38 |
| | Yes sometimes | 133 | 42.2 | |
| | No, not much | 116 | 35.6 | |
| | No, not at all | 27 | 8.4 | |
| | | | | |
| **Things have been getting on top of me** | Yes most of the time I haven't been able to cope at all | 63 | 19.5 | 2.29 |
| | | | | |
| | Yes sometimes, I haven't been coping as well as usual | 125 | 38.7 | |
| | No most of the time I have coped quite well | 113 | 35.7 | |
| | No, I have been coping as well as ever | 22 | 6.8 | |
| | | | | |
| **I have been so unhappy that I have had difficulty sleeping** | Yes most of the time | 65 | 20.1 | 2.15 |

| | | | | |
|---|---|---|---|---|
| | Yes sometimes | 162 | 50.2 | |
| | Not very often | 80 | 24.8 | |
| | No not at all | 16 | 5.0 | |
| | | | | |
| **I have felt sad or miserable** | Yes most of the time | 65 | 20.1 | 2.29 |
| | Yes quite often | 136 | 42.1 | |
| | Not very often | 84 | 26.0 | |
| | No not at all | 38 | 11.8 | |
| | | | | |
| **I have been so unhappy that I have been crying** | Yes most of the time | 77 | 23.8 | 2.27 |
| | Yes quite often | 110 | 34.1 | |
| | Only occasionally | 107 | 33.1 | |
| | No never | 29 | 9.0 | |
| | | | | |
| **The thought of harming myself has occurred to me** | Yes quite often | 40 | 12.4 | 2.75 |
| | Sometimes | 98 | 30.3 | |
| | Hardly ever | 89 | 27.6 | |
| | Never | 96 | 29.7 | |
| **Grand mean** | | | | **2.30** |

Table 3 presents the result of the analysis of respondents' opinions on the level of depression of mothers of preterm and term babies in ISTH, Irrua. The normal range is 1.0 – 2.49 and anything above is considered abnormal. When the respondents were asked whether they were able to laugh and see the funny side of things. The majority of 113(35.0%) of the respondents (mothers) indicated that not quite so much, 103(indicated not so much; 88(27.2%) indicated as much as I always could and only 19(5.9%) indicated not at all. When the respondents were asked whether they looked forward with enjoyment to a thing, 122(37.8%) indicates as much as I ever did; 110(34.1%) indicates rather less than I used to; 80(24.5%) indicates less than I used to; 11(3.4%) indicates hardly at all.

The responses were obtained when the respondents were asked whether they blamed themselves unnecessarily when things go wrong. 85(26.3%) indicates Yes, most of the time; 117(36.2%) indicates Yes, some of the time; 83(25.7%) indicates not very often; and 38(11.8%) indicates no, never. The respondents' opinion on whether they have anxious or worried for no good reason revealed that 41(12.7%) indicates not at all; 86(26.0%) indicates hardly ever; 174(53.9%) indicates sometimes and 22(6.8%0 indicates very often. When the respondents were asked whether they feel scared in panicky for no very good reason, 47(14.6%) indicates yes, quite a lot; 133(42.2%) indicates yes, sometimes; 116(35.6%) indicates not much and 27(8.4%) indicates not at all. The respondents' opinion on those things that have been getting on top of them showed 63(19.5%) reported that most of the time, they have not been able to cope at all; 125(38.7%) indicates sometimes; 113(35.7%) indicates most of the time and 22(6.8%) indicates never. When the respondents were asked whether they have so unhappy that lead to difficulty in sleeping indicates that 65(20.1%) most of the time; 162(50.2%) indicates sometimes; 80(24.8%) indicates very often; 16(5.0%) indicates not at all. Also, 65(20.1%) of the respondents reported that they felt sat or miserable most of the time; 136(42.1%) indicates quite often; 84(26.0%) indicates not very often and 38(11.8%) indicates not at all. In addition, 77(23.8%) of the respondents have been unhappy to the extent of crying most of the time; 110(34.1%) indicates quite often; 107(33.1%) indicates occasionally and 29(9.0%) indicates never. When the respondents were asked whether thinking of harming themselves has ever occurred to them, 40(12.4%) of the respondents reported quite often; 98(30.3%) reported sometimes; 89(27.6%) reported hardly ever and 96(29.7%) reported never. The grand mean of 2.30 indicates that there is a low level of depression among the mothers of preterm and term babies in the study area.

**Hypothesis One**

There is no significant difference in the level of depression among mothers of preterm and term babies in ISTH, Irrua.

**Table 4: Two-sample t-test on the level of depression among mothers of preterm and term babies in ISTH, Irrua**

| Type | N | Mean | Std Dev. | Std Error | t-value | DF | MD | P | Remark |
|---|---|---|---|---|---|---|---|---|---|
| **Preterm** | 164 | 2.2549 | 0.5680 | 0.04435 | -1.689 | 321 | 0.0936 | 0.092 | Not Sig. |
| **Post Term** | 159 | 2.3484 | 0.4129 | 0.03275 | | | | | |

**Significant at p 0.05*

The result in Table 4 revealed that the level of depression among mothers with post-term babies is higher when to mothers with preterm babies. However, the differences in the mean depression level are not significant

(p = 0.092 > 0.05). Therefore, the null hypothesis which states that there is no significant difference in the level of depression among mothers of preterm and term babies in ISTH, Irrua was supported.

**Hypothesis Two**

Infant's demographic variables (age in weeks, weight at birth, and sex) has no significant effect on depression of mothers of preterm and term babies in ISTH, Irrua

**Table 5: Binary Logistic Regression coefficient on the Impact of Infants Demographic Variables on Depression of Mothers**

| | | | | | 95% C. I. For Odd Ratio | | |
|---|---|---|---|---|---|---|---|
| **Infant Demographic Variables** | **Coefficient** | **Wald** | **SE** | **P-value** | **Lower** | **Odds Ratio** | **Upper** |
| **Constant** | -4.913 | 9.405 | 1.602 | 0.002 | | 0.007 | |
| **Age (Weeks)** | 0.110 | 3.229 | 0.061 | 0.072 | 0.990 | 1.116 | 1.258 |
| **Sex** | 0.889 | 13.719 | 0.240 | 0.000 | 1..520 | 2.433 | 3.895 |
| **Weight at Birth** | 0.246 | 0.757 | 0.283 | 0.384 | 0.734 | 1.279 | 2.229 |
| **Hosmer&Lemeshow Test $\chi^2 = 14.03, p = 0.083$, DF = 8** | | | | | | | |

Binary logistic regression indicates that the sex of the infant is significant in the mother's level of depression as presented in Table 5. However, age in weeks and weight at birth are not significant predictors of maternal depression. This implies that the sex of the infant is an infant demographic variable that has a significant effect on the depression of mothers of preterm and post-term babies in ISTH Irrua. The three predictors explained 16.2% of the variability of depression of mothers of preterm and post-term. The sex of the infant is significant at the 5% level (wald = 13.719, p = 0.000 < 0.05). The odds ratio (OR) for the sex of the infant is 2.433 (95% CI: 1.520 to 3.895). The model correctly predicted 54.5% of the mothers with low depression and 70.4% with High depression giving an overall percentage correct prediction rate of 62.8%

## V. Discussion

The grand mean of 2.30 indicates that there is a low level of depression among the mothers of preterm and term babies in the study area, this is in disagreement which work done by Trumello et al (2018) in Kenya whose showed high level of depression and anxiety in both mothers of preterm and term babies. Adewuya et al (2005) reported that Nigerian mothers of preterm infant were 4 time more likely to develop postpartum depression than mothers of term infant. The response of the participants to the question on whether they were able to laugh and see the funny side of thing, majority of 113(35%) agree. Respondents' religious belief of Christianity which 207(64.1) trust God to see them through what most be happening and God will see. Economic power could also contribute to ability to over depression as 189(58.5) participants has regular source of income to meet up with need in the care of their need in SCBU or possibly paid the bill. Another factor that is of important is that 283(85%) of study participants had secondary level and above educational background and they also have access to internet information that is of concern to their infant's wellbeing. In conclusion the differences in spiritual and economic setting must have contributed to the differences in the findings The grand mean of 2.65 on level of anxiety of mothers of preterm and term indicate that it is high in ISTH, Irrua.

This agreed with study done by Segre et al (2005) which stated that mothers of hospitalized neonatal in SCBU are at risk for clinical significant level of depression and anxiety symptom.

Binary Logistic regression indicates that the sex of the infant is significant in the mother level of depression the sex of the infants is an demographic variable that has a significant effect on the depression of mothers of preterm and term babies in the population of study. The modes correctly predicted 54.5% of the mothers with low depression and 70.4% with high depression giving an overall percentage correct prediction rate 62.8%(appendix). The result agreed with work done in Lagos state by Ishola el ta 2018 which examined depression mood and postpartum anxiety in messy street children hospital with cronbach alpha at the P<0.05

**Implication of the Study**

The finding of the study will help to plan health education on management of stress for mothers during antenatal period so the knowledge will help to reduce its occurrence. The findings will serve as resource material to researchers who wish to embark on related topics in nearest future and it will aid in educating the general public of ways that post-partum anxiety and depression can be prevented among women of child bearing age. The finding from the study led to establishment of non-governmental organisation that will assist mothers of preterm/ term whose babies are admitted into neonatal intensive care unit both psychologically and financially in the care of their babies. The study result will help to correct the error in the traditional belief about the rejection of preterm babies.

Findings from this study will help mothers to know where to seek help when they observed signs of anxiety and depression after child birth. Policy makers will pass into law the assistance that will be available for mothers of preterm/ term babies. The findings from the study will help health team working in NICU plan how to include parents in the care of their babies so as to reduce the lack of bonding between mother and baby during post-partum period. The study will generate information that will help in early detention of mothers likely to develop anxiety or stress related syndrome during postpartum period using stress trait anxiety scale (Cox *et al*., 2017). All pregnant women will routinely be screen for symptoms that will be led to depression post-partum.

## VI. Conclusion/Recommendations

The present study concluded that mothers with premature babies suffer from severe level of anxiety and minimal level of depression. Although there were no effects of the mother's anxiety and depression on their babies, those mother's showed high negative attitude towards their babies which affect their interactions with the babies. The study recommend that mothers of preterm/ term babies nursed in SCBU are in great need for psychological support and guidance. It is crucial to follow-up those mothers during their premature baby's development. Early provision of psychological support to mothers of premature babies can help in reduce the vulnerability of having depression and anxiety. Implementation of educational nursing program to nurses to equip them with the needed knowledge of how to manage the needs and the problem of mothers of premature babies. Nurses should be trained to identify mothers at risk to develop depression and anxiety as this will affect the mother's quality of care provided to her babies. There should be available centres that can provide psychological support of mothers when premature babies are discharge from the hospital. Raise the fathers and family members' awareness about the psychological needs of mother of premature babies. It was be interesting to investigate the father's level of depression anxiety in different research.

## References


[1]. Adeyemo, E.O, Oluwole, E.O, Kanma-Okafor O.J, Izuka O.M &Odeyemi, K.A (2020). Prevalence And Predictors Of Postpartum Depression Among Postnatal Women In Lagos, Nigeria. African Health Sciences. 20(4), 1493-1500.

[2]. Agbaje, O.S., Anyanwu, J.I., Umoke, P.I.C., Iwuagwu, T.E., Iweama, C.N., Ozoemena, E.L. &Nnaji, I.R. (2019). Depressive And Anxiety Symptoms And Associated Factors Among Postnatal Women In Enugu-North Senatorial District, South-East Nigeria: A Cross-Sectional Study. Archive Of Public Health. 77(1). Https://Doi.Org/10.1186/S13690-018-0329-6.

[3]. Alkozei E, Mmahon&Lahavm (2015). Stress Level And Depressive System In NICU Mothers In The Early Postpartum Period. The Journal Of Maternal, Fetal & Neonatal Medicine. 27(17), 1738-1743.

[4]. Amiegheme F. E.; Daniels F, M. &Ehwarieme T, A (2016). Assessment Of Patient's Knowledge Of Risk Factors Of Postpartum Depression In Selected Hospitals In Edo State. 5(11): 124-135.

[5]. Aylward, G.P. (2005). Neurodevelopmental Outcomes Of Infants Born Prematurely. Journal Of Developmental Behaviour And Paediatrics. 26, 427–440.

[6]. Barker E.D, Jaffee S. R. &Uher (2011). The Contribution Of Prenatal And Post Natal Maternal Anxiety And Depression On Child Maladjustment. Journal Of Behavioural, And Anxiety Studies. 2(8):696-702.

[7]. Bashiri, N. &Spielvogel A.M. (2019). Postpartum Depression: A Cross-Cultural Perspective. Primary Care Update For OB/GYNS, 6(3), 82–87.

[8]. Baxt, C. & Evans, J.R. (2010). Prevalence And Correlates Of Posttraumatic Stress And Postpartum Depression In Parents Of Infants In The Neonatal Intensive Care Unit (NICU). Journal Of Clinical Psychol. Med. Settings 17, 230–237.

[9]. Bener, A. (2013). Psychological Distress Among Postpartum Mothers Of Preterm Infants And Associated Factors. Neglected Public Health Problem. 35(3), 232-240.

[10]. Bugental, D.B., Beaulieu, D. & Schwartz, A. (2008). Hormonal Sensitivity Of Preterm Versus Full-Term Infants To The Effects Of Maternal Depression. Infant Behaviour. Development. 31, 51–61.

[11]. Carter, J. D., Mulder, R.T., Bartram, A.F. &Darlow, B.A. (2005). Infants In A Neonatal Intensive Care Unit: Parental Response. Achieve. Disable. Child. Fetal Neonatal Edition. 90. Https://Doi.Org/10.1136/Adc.2003.031641.

[12]. Centers For Disease Control And Prevention (CDC), (2008). Prevalence Of Self-Reported Post- Partum Depressive Symptoms–17 States, 2004-2005. MMWR. Morb. Mortal. Wkly. Rep. 57, 361–366.

[13]. Chinawa, J.M, Odetunde, O.I, Ndu, I.K, Ezugwu, E.C, Aniwada, E.C, Chinawa, A.T &Ezenyirioha, U. (2016). Postpartum Depression Among Mothers As Seen In Hospitals In Enugu, South-East Nigeria: An Undocumented Issue. Pan African Medical Journal. 2(3),180-8244.

[14]. Cox, J. L., Holden, J.M. &Sagovsky, R. (2017). Detection Of Postnatal Depression: Development Of The 10-Item Edinburgh Postnatal Depression Scale. British. Journal Of Psychiatry, 150, 782–786.

[15]. Daria K .B. (2019). Physical Activity And The Occurrence Of Postpartum Depression.

[16]. Dillo, B. (2020). Anxiety: Causes, Symptoms Treatment And More. Health Line Https \\Www. Healthline .Com.

[17]. Dillon, B. (2020). Anxiety Disorder. American Psychiatric Association , Health Essential.

[18]. Donna, E., Stewart, M.D, Robertson, E., Cindy-Lee D.R.N. & Sherry, L. (2013). Postpartum Depression: Literature Review Of Risk Factors And Interventions. 6(12), 59-60.

[19]. Folayan, M.O. Haire, B. Harrison, A. Odetoyingbo, M. Fatusi, O. & Brown, B. (2014). Ethical Issues In Adolescents' Sexual And Reproductive Health Research In Nigeria. Last Accessed 15th June, 2021 From Https://Www.Researchgate.Net /Publication/262941151

[20]. Gebregziabher, N. K, Netsereab, T. B, Fessaha, Y. G, Alaza, F.A, Ghebrehiwet, N.K. &Sium, A. (2020). Prevalence And Associated Factors Of Postpartum Depression Among Postpartum Mothers In Central Region, Eritrea: A Health Facility Based Survey. School Of Public Health, Asmara College Of Health Sciences, Asmara, Eritrea. 2(4): 2-10.

[21]. Goodman, J.H., Watson, G.R. & Stubbs, B. (2016) Anxiety Disorders In Post-Partum Women Affect Discord. 20(3), 292-331.

[22]. Gulamani, S. S., Premji, S.S., Kanji, Z., &Azam, S.I. (2013). Preterm Birth A Risk Factor For Postpartum Depression In Pakistani Women. Open Journal Of Depression. 2(4),72-81

[23]. Hall, E.O.C. (2015). Mothers' Experiences Of Having A Preterm Infant In The Neonatal Care Unit: A Meta-Synthesis. Journal. Paediatrician. Nursing. 23. Https://Doi.Org/10.1016/J.Pedn.2007.02.003.
[24]. Ishola, A.A., Obasi, C.C. &Sholuke, I. T. (2018). Development And Validation Of The Mothers Of Preterm Babies Postpartum Depression Scale. Family Medicine And Community Health. 6(3):104–114. DOI 10.15212/FMCH.2018.0109
[25]. Kerie, S. &Karakiri, G. (2017). Prevalence And Associated Factors Of Postpartum Depression In South West Ethiopia. Https//Bmcreenotea Biomedcentral.Com
[26]. Leedy, P. D. &Ormrod, J. E. (2005). Practical Research: Planning And Design. Upper Saddle River, NJ: Pearson.
[27]. Legg, T.J. (2020). Mental Health: Definition, Common Disorder ,Common Disorder Early Signs And More Https://Www .Mayoclinic.Org.
[28]. Lusskin, H. (2020). The Magnitude Of Postpartum Depression Among Mother In Africa-Medicine Journal. 3(7),89-100.
[29]. Madeghe, B. A., Kimani, V.N., Vander, B., Stoep, A., Nicodimos, S. & Kumar, M. (2016). Post- Partum Depression And Infant Feeding Practices In A Low Income Urban Settlement In Nairobi-Kenya. BMC Res. Notes 9, 506. Https://Doi.Org/10.1186/S13104-016-2307-9.
[30]. Matua, J., Kigamwa, P., Na'ang'a, P., Tele, .A. & Kumar, M.(2020). Postpartum Anxiety And Depression In Mother With Preterm Birth In Kenya. Journal Of Affective Disorder Report:, Www Elsevier.Com/Locate/Jadr.
[31]. Mazel, O. & Omari. A. I. (2020). Prevalence And Predictors Of Depression, Anxietyand Stress. Depression Research And Treatment Journal. Https:// Doi.Org/10 1155/2020/8887727.
[32]. Mccoy, S.J., Beal, J.M., Shipman, S.B., Payton, M.E. & Watson, G.H. (2008). Risk Factors For Postpartum Depression: A Retrospective Investigation At 4-Weeks Postnatal And A Review Of The Literature. Journal. Am. Osteopathic Ass. 106 (4), 193–198.
[33]. Miles, M.S., Holditch-Davis, D., Schwartz, T.A. &Scher, M. (2007). Depressive Symptoms In Mothers Of Prematurely Born Infants. J. Dev. Behav. Pediatr. 28, 36–44.
[34]. Miller, R.L., Pallant, J.F. &Negri, L.M. (2006). Anxiety And Stress In The Postpartum: Is There More To Postnatal Distress Than Depression? BMC Psychiatry, 6, 12.
[35]. Misund, A.R., Nerdrum, P., Bråten, S., Pripp, A.H. &Diseth, T.H. (2013). Long-Term Risk Of Mental Health Problems In Women Experiencing Preterm Birth: A Longitudinal Study Of 29 Mothers. Annex General Psychiatry 12. Https://Doi.Org/10.1186/1744-859X-12-33.
[36]. Mounts, K.O. (2009). Screening For Maternal Depression In The Neonatal ICU. Clin. Perinatol.. Https://Doi.Org/10.1016/J.Clp.2008.09.014.
[37]. Mutua, J., Kigamwa, P., Ng'ang'a, P., Tele, A., & Kumar, M. (2016). Comorbid Postpartum Anxiety And Depression And Associated Factors In Mothers With Pre-Term Births: A Descriptive Comparative Study. Research Square. 4(11), 2-18.DOI: Https://Doi.Org/10.21203/Rs.3.Rs-19980/V1.
[38]. Mwikali, V. M. (2013). Prevalence Of Postpartum Depression Among Women Delivering At Kenyatta National Hospital. (University Of Nairobi). 21–23
[39]. Nicol-Harper, R., Harvey, A.G. & Stein, A. (2007). Interactions Between Mothers And Infants: Impact Of Maternal Anxiety. Infant Behaviour Development. 30, 161–167.
[40]. Nwachukwu, E. (2018). Sampling In Qualitative Research .Africa Journal. Online.
[41]. O'Sullivan, E., Rassel, G. R. &Berner, M. (2008).Research Methods For Administrators. New York NY: Pearson.
[42]. Pierrehumbert, B. (2003). Parental Post-Traumatic Reactions After Premature Birth: Implications For Sleeping And Eating Problems In The Infant. Archive. Disable. Child. - Fetal Neonatal Ed. 88, 400F–4404.
[43]. Poehlmann, J. &Fiese, B.H. (2001). The Interaction Of Maternal And Infant Vulnerabilities On Developing Attachment Relationships. Dev. Psychopathol. 13, 1–11.
[44]. Reid K. M. &Tajlor M. G. (2015). Stress And Maternal Depression. The Importance Of Stress Time Timing. Population Research And Policy Review. 34(6), 851-872
[45]. Reinhold, J.A. (2018). 5th Anxiety Mayo Clinic Family Health Book. Https//Www .Mayoclinic.Org.
[46]. Rogers, C.E., Kidokoro, H., Wallendorf, M. &Inder, T.E. (2013). Identifying Mothers Of Very Preterm Infants At-Risk For Postpartum Depression And Anxiety Before Discharge. Journal Of. Perinatal. 33, 171–176.
[47]. Salima S. Shahirose P. Zeenatkhanu K &Iqbal A (2020). A Review Of Postpartum Depression, Preterm Birth And Culture. The Journal Of Perinatal And Neonatal Nursing. 27(1),52-9.
[48]. Sari, A. B., Axelin, A. &Lehtonen, L.(2019). An Educational Intervention For NICU Staff Decreased Maternal Postpartum Depression. Paediatric Research Journal 85,Pp 982-986
[49]. Sekaran, U. (2013). Research Method For Business. A Skill Building Approach. New York; John Wiley And Sons, Inc.
[50]. Smith, W.M. (2020) Postpartum Depression; Symptoms, Causes ,Risks, Tyoes, Test.Https//Www.Webmd. Com.
[51]. Timothy, O.I. & Saba, W .M. (2017). Do Successive Preterm Birth Increase The Risk Of Postpartum Depressive Symptoms.Journal Of Pregnancy Article ID4148136 Https;//Doi.Org.
[52]. Vanderbilt, D., Bushley, T., Young, R. & Frank, D.A. (2009). Acute Posttraumatic Stress Symptoms Among Urban Mothers With Newborns In The Neonatal Intensive Care Unit: A Preliminary Study. Journal Of Development Behaviour. Paediatrician. 30, 50–56.
[53]. Vigod, S.N., Villegas, L., Dennis, C.L. & Ross, L.E. (2010). Prevalence And Risk Factors For Postpartum Depression Among Women With Preterm And Low-Birth- Weight Infants: A Systematic Review. BJOG An International Journal Of Obstetrics Gynaecology. Https://Doi.Org/10.1111/J.1471-0528.2009.02493.X.
[54]. Welch, M. G., Halperi, M. S. Austine, J., Stark, R. I., Hofer, M.A. &Hane, A. A. (2016). Depression And Anxiety Symptoms Of Mother Of Preterm Infant Are Decreased At 4 Month Corrected Age With Family Nurture Intervention In The NICU.
[55]. World Health Organization (2018). Born Too Soon. The Global Action Report On Preterm Birth: Geneva. WHO Press.
[56]. Yuan, W., Duffner, A.M., Chen, L., Hunt, L.P., Sellers, S.M. & Bernal, A.L. (2010). Analysis Of Preterm Deliveries Below 35 Weeks' Gestation In A Tertiary Referral Hospital In The UK. A Case-Control Survey. BMC Res. Notes 3, 119.
[57]. Zsido, A. N., Teleki, S., Csokasi, K. &Rozsa, S. (2020). Development Of The Short Version Of The Speilberger State-Trait Anxiety Inventory. Psychiatry Research 2(4), 12-26.