

**POSTPARTUM DEPRESSION AMONG HAUSA ETHNIC WOMEN  
IN ABUBAKAR TAFAWA BALEWA UNIVERSITY TEACHING  
HOSPITAL, NORTH EAST NIGERIA**

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**ABSTRACT**

Postpartum depression adversely affects the quality of mother's own life, her intimate partners, and maternal infant relationship with a significant long-term consequences on the social, emotional and cognitive development of the child. Hausa ethnic group constitutes the largest population in Nigeria, but records on postpartum depression and its sociodemographic associates are limited about this population. This research assessed the prevalence of postpartum depression and its associated sociodemographic variables among Hausa postpartum mothers attending Abubakar Tafawa Balewa University Bauchi, North East Nigeria. 175 Hausa postpartum mothers of children under 5 months old attending postnatal clinic were systematically sampled in a descriptive cross sectional design. Edinburgh postnatal depression scale (EPDS) was adopted to measure and screen postpartum depression. Descriptive statistics was employed for the analysis of categorical variables and chi-square for comparing association between sociodemographic counts with postpartum depression. The prevalence of postpartum depression among the respondents using EPDS was 45.7% at a cut off score of 10. When the cut of score was 12, the prevalence was 36.0% and at a more stringent score of 13, the prevalence was 28.0%. Marital status, employment and mode of delivery were associated with postpartum depression, while age and educational background were not. The study demonstrated that substantial number of Hausa postpartum mothers attending postnatal clinic in the hospital screened positive for postpartum depression. Obstetrics and Gynecology department should encouraged regular screening women for postpartum depression during their postnatal visits. This will ensure early diagnosis, referral of affected mothers and appropriate intervention.

**KEYWORDS:** Hausa Ethnic Group, Postpartum Depression

**INTRODUCTION**

Despite the high prevalence of postpartum depression among impoverished women and its social demographic correlation (Sampson, Villarreal & Rubin, 2014), data for Hausa ethnic group is limited. Postpartum depression is a common cause of maternal morbidity, childbirth complication and burden across studies (Chibanda et al., 2014; Cheadle et al., 2014; Hamdan & Tamim, 2010). Postpartum depression becomes apparent four weeks after childbirth and may last for up to one year two months (Ukaegbe, Itেকে, Bakare, & Agbata, 2012). It is characterized by intense sadness, insomnia, anorexia, guiltiness about self and parenting capability, low self-worth, fatigue, hopelessness, withdrawal symptoms, poor

concentration, unable to enjoy pleasurable things and suicidal tendencies (American Psychiatric Association, 2013).

Postpartum period is highly vulnerable and commonly associated with emotional affective mood disorders which includes postpartum blues, postpartum depression and postpartum psychosis. Postpartum depression is the second among the three whose symptoms and severity is greater than postpartum blues but less than postpartum psychosis (Tissot et al., 2013). Postpartum blues can be resolved spontaneously or with little intervention, while postpartum depression can be treated with chemotherapy, psychotherapy or both, but postpartum psychosis needs hospitalization and more advanced holistic psychiatric treatment (APA, 2013).

The negative outcomes associated with postpartum depression for the mother and her intimate partners are well demonstrated. Studies have indicated that women with the history of depression are more potential to experience postpartum depression (Vigod, Villegas, Dennis & Ross, 2010). Postpartum depression harm and negatively affect mother-child bonding which resulted into attachment insecurity and adverse childhood developmental. These adverse effects includes delay in cognitive, social and emotional development of the child leading to difficulties in social interaction. It affects marriage relationship leading to divorce and if not cured can be resulted into suicide and infanticide (Vigod et al., 2012). Even though there is pharmacological and non-pharmacological treatment for postpartum depression, but early diagnosis through screening the patients can greatly determine the treatment effectiveness.

Varied reports on the prevalence rate for postpartum depression have been established. The average prevalence worldwide was reported as 10-15% (O'Hara & Swain, 1996). The next immediate literature was that of Richard (1990) who reported that postpartum depression approximately affects 5-22%. Study among postpartum mothers in Islamic Republic of Iran indicates a prevalence of 22% at a cut off score of 12 in EPDS (Ali Montazeri, Behnaz & Sepideh, 2007). The prevalence in India was 23% at a cut off score of 11 using the same scale (Patel, Rodrigues, Desouza & Gender, 2002). 22% at 10 cut off point in Indonesia was reported (Edwards, 2006), while the prevalence among Chinese mothers was 32.9% at the cut off scores of 12 (Wan et al., 2009). The prevalence rate among low-income nations has been found higher. In Zimbabwe the rate was between 16-35% (Chibanda et al., 2014), in African American the rate was 7-13% (Cheadle et al., 2014).

The prevalence rate in Nigeria is very higher. The prevalence among postpartum mothers in the North central of Nigeria was 44.5% (Obinda et al., 2013), while 30.6% was reported in the southern eastern Nigeria (Ukaegbe, Iteke, Bakare & Agbata, 2012). In a study among 876 women attending postnatal clinic in western Nigeria indicated a prevalence of 14.6% at a cut off of 9 in EPDS (Adewuya, 2005). In another cross sectional design using the same scale among 206 postpartum mothers in Mid-Western Nigeria, a prevalence of 23% at a scores of 9 was also established (Ebeigbe & Akigbe, 2008). Similar findings of 23% was reported using the same scale but at a cut off scores of 12 among participants in the same region but different postnatal clinic (Owoeye, Aina & Morakinyo, 2006). The findings of these studies substantially demonstrated the wide use of EDPS in the measurement of depression after childbirth in Nigeria with a high reliability (Owoeye et al., 2006; Ebeigbe et al., 2008; Uwakwe, 2003; Abiodun, 2006; Taiwo & Olayinka, 2007).

### **Hausa Ethnic Group**

The Hausa are diverse but culturally similar people primarily based in Nigeria. They are widely distributed geographically and have interacted with many different peoples. They are the largest ethnic group in West Africa numbering more than 20,000,000 with significant numbers living in Sudan, Niger, Cameroon, and Code d'Ivoire, Chad,

Togo, Ghana and Gabon (Coles, Catherine & Beverly Mack, 1991). Hausa are predominantly found in the north and northwest regions of Nigeria known as Hausa land constituting the largest ethnic group in Nigeria with Hausa as their spoken language (Smith & Mary, 1954). The postpartum cultural beliefs and practices of Hausa ethnic group includes 40 days sexual abstinence, observing hot ritual baths and lying on heated mud beds (for curing illness from severe cold). Others practices are feeding with large quantities of a special gruel called “kunun kanwa” containing huge amounts of sodium carbonate or potash (Ilyasu et al., 2006). These practices are detrimental to the health care of the mothers such as burns due to hot baths, hypertension, anxiety and injuries to the infants (Ilyasu et al., 2006; Ezem & Otubu, 1980; Mabogunje et al., 1987).

Little research were carried out on postpartum depression and its related sociodemographic variables among Hausa ethnic groups of Nigeria. Therefore, this research investigated the prevalence of postpartum depression and its association with sociodemographic variables of age, marital status, educational level and mode of delivery among Hausa ethnic postpartum mothers of children under 5 months at a cut off score of 10 of EPDS in Abubakar Tafawa Balewa University Teaching Hospital Bauchi, Northern Eastern Nigeria.

## **METHOD**

Abubakar Tafawa Balewa University Teaching Hospital is the site for this research. It has 700 beds capacities and is the second largest teaching hospital in the north eastern Nigeria comprising of six states. It receives new and referral cases from within and outside the state with a turnover of 3,400 patients per week. The obstetrics and gynecology department runs prenatal care, postnatal care, family planning services and management of in and out patients. Patients attending this department are a combination of patients from all social status across ethnic groups, but majority of the patient are middle and low income Hausa speaking ethnic group.

### **Participants and Procedure**

The postpartum mothers who were approached and interviewed to take part in this study were 191, but 16 refused to participate. Therefore, only 175 agreed and met the research criteria. They were given detail explanation and practical description on how to fill the questionnaires given to them. 175 were returned and properly filled and used. Inclusion criteria for this study include Hausa ethnic postpartum mothers of children under 5 months that can read and understand English language. Their ages ranged from 18 to 47 years. The other inclusion criteria are those participants that voluntarily agreed by signing a consent form and not on any psychoactive drugs. The sample were obtained after going through the postnatal registry book and their case files which contain all information about themselves. The researcher, researcher assistants and the departmental staff were fully involved in explaining and assisting in filling the questionnaires. Telephone numbers of the researcher, research assistants and respondents were exchanged for clarification. The questionnaires were returned via the same people. Systematic random sampling was employed for selectin participants and were met individually and collectively during immunization date and follow-up visits. The collection and screening the participants took six weeks from 2nd-July to 16th August, 2015.

## Study Design

This is a cross-sectional descriptive study of Hausa ethnic postpartum mothers of children less than 5 months attending obstetrics and gynecology postnatal clinic. 175 questionnaires which includes sections for sociodemographic data and postpartum depression questions were completed. The sociodemographic part consists of structured closed questions regarding marital status, age, educational background, employment status and mode of delivery designed by the researcher. The Edinburgh Postnatal Depression Scale (Cox et al., 1987) consist of 10 items and each was scored from 0-3 points. It contains items that correspond to the many features of clinical depression. The total scores is determined by summing up together the scores for each of the 10 items. Scores from 10 and above indicates the present of depression and the higher scores indicates more depression. The questionnaires were answered in the clinic or at home. The participants who need more clarification about the questionnaires communicated through mobile phone numbers. A positive responds to items 10 on suicidal tendency were advised to see Psychiatrists professional. The questionnaire has a Cronbach alpha reliability of .83 in this study.

The marital status of the mothers were categorized and assigned 2 for married, 3 for divorce and 4 for widow. Educational background of the participants were allocated scores as 1 for O-Level (primary to secondary level) and 2 for tertiary institutions (diploma to PhD level). The age was assigned 1 for age between 18-27, 2 between 28-37 and 3 from 38-47 years. The employment status is allocated 1 for employment and 2 for unemployed. Mode of delivery was assigned 1 for normal delivery and 2 for cesarean sections (CS).

## Data Analysis

Data was analyzed using Statistical Package for Social Sciences (SPSS) 20 version. Descriptive statistics was used to analyze the sociodemographic categorical variables The Chi-squared test was used to compare associations between postpartum depression and sociodemographic categorical variables (marital status, age, employment status, educational background and mode of delivery). The calculated chi-square was compared with the table value at 0.05 significance level.

## RESULTS

There were 175 respondents that met the research criteria and suitable for analysis. Table 1 has shown the sociodemographic characteristics of the participants.

**Age:** Age of respondents ranged between 18 and 47years with a mean of (28.0 years, SD .620).

**Marital Status:** Out of 175 respondents, 118 (67.4%) were married, 26 (14.9%) were divorced women and 31 (17.7%) were widowed.

**Employment Status:** Out of the 175 mothers participated, 63 (36.0%) were employed as civil servants, while, 112 (64.3%) were house wives completely dependent on their husbands.

**Educational Background:** Out of 175 respondents, 111 (63.4%) were O-Level mothers that have completed primary school or secondary level. Those above secondary education were considered as A-Level accounted for 64 (36.6%).

**Delivery Mode:** Out of the 175 participants, 151 (86.3%) had normal delivery, while 24 (13.7%) undergoes

cesarean section (CS) that is delivery by operation or forceps delivery.

**Prevalence of Postpartum Depression among the Respondents**

80 participants scored 10 points and above on the EPDS and 63 scored 12 points and above, while 49 participants scored 13 points and above. If these scores were used as cut off scores for determining postpartum depression, a prevalence of 45.7%, 36.7% or 28.0% respectively would have been reported. If the cut off score of 10 and above was used, 80 (45.7%) of all the 175 (100%) participants had postpartum depression, while 95 (54.3%) did not have postpartum depression as shown in Table

**Table 1: Participant’s Socio-Demographic Characteristic**

Variables	N	Percentage (%)
<b>Marriage</b>		
Married	118	67.4
Divorce	26	14.9
Widow	21	17.7
<b>Employment Status</b>		
Employed	63	36.0
Unemployed	112	64.0
<b>Age</b>		
18-27	68	38.9
28-37	92	52.6
38-47	15	8.6
<b>Educational Background</b>		
O-Level	111	63.4
A-Level	64	36.6
Normal	151	86.3
Cesarean section	24	13.7

**Table 2: Prevalence of Postpartum Depression at Different Cut off Scores in Epsds**

EPDS Scores	Depressed	%	Not Depressed	%
≥ 10	80	45.7	95	54.3
≥ 12	63	36.0	112	64.0
≥ 13	49	28.0	126	72.0

\*Edinburgh Postnatal Depression Scale

**Table 3: Association of Postpartum Depression to Sociodemographic Variables**

Variables	Depressed	%	Not Depressed	%	Chi-Square (χ <sup>2</sup> )	Table-Values
<b>Marital Status</b>					14.7	5.99
Married	47	26.9	71	40.6		
Divorced	15	8.6	11	6.3		
Widowed	24	13.7	7	4.0		
<b>Employment Status</b>					8.9	3.84
Employed	12	6.9	51	29.1		
Unemployed	46	26.3	66	37.8		
<b>Age</b>					4.55	5.99
18 – 27	23	13.1	45	25.7		
28 – 37	29	16.6	62	36.0		
38 – 47	7	4.0	8	4.6		
<b>Educational Background</b>					0.04	3.84

Table 3 Cont						
O-Level	37	21.1	74	42.3		
A-Level	22	12.6	42	24.0		
<b>Mode of Delivery</b>					4.38	3.84
Normal	31	17.5	120	68.6		
Cesarean section	14	8.0	10	5.7		

## DISCUSSIONS

The prevalence of postpartum depression of 47.5% found in this study is higher than the 44.5% prevalence range reported by Obinda et al, (2013) in their study among postpartum women in a clinical setting in the north central of Nigeria. The result of this study is in line with the global findings that postpartum depression cut across ethnic groups and nations in general. The prevalence rate of 41% among postpartum women in Thailand was closer to this result (Limlomwongse, & Liabsuetrakul, (2006). The rate of 16-35% recorded among Zimbabwean mothers (Chibanda et al, (2014) and 31.2% among Mzuzu population in Malawi Chilale and Tugumisirize as cited in (Ukaegbe, 2012) and Udedi (2013) signified that postpartum depression is frequent and common among low and middle income mothers. This research outcome was also supported by a studies that reviewed about 143 studies in 40 countries. These studies reported the prevalence of postpartum depression ranging from 0% to 60%. Countries with less prevalence rate of postpartum depression include of Singapore, Malta, Malaysia, Austria and Denmark, while countries like Italy, Guyana, Costa Rica, Chile, Taiwan, Korea and Brazil, recorded high rate (Halbreich & Karkun, 2006).

The differences in the prevalence rate of postpartum depression reported by various studies might be attributed to cross cultural differences, diverse socioeconomic position, prenatal depression, poor living standard, stress in child care, absence of social support, low self-esteem, poor problem solving ability, research methodology differences in measurement tools as well as the systems of research reporting. The cut of scores of 10 was used in this study to arrive at 47.5%, but the prevalence rate could have been more than the present result if a cut of score of 9 was used. The rate at 12 was 36.0%, and 28% at 12 cut of scores using EPDS. The cut of scores determine the sensitivity and specificity of the instruments. Study has suggested the cut of scores of 9 for optimum reliability and less misclassification. The cut of scores of 10 and 11 have been reported with highest efficiency of 0.95 (Uwakwe, 2003; Ukaegbe, 2012).

A prevalence of 27.2% at a cut of 9 scores reported by Ebeigbe and Akigbe (2008) in the Southern Nigeria was less than that reported in this study. The rate in this research is also higher than the 18.6% reported by Abiodun, (2006) in the western Nigeria whose cut of score was 8 and also higher than 23% in the same region, but at cut of score 12 (Owoeye et al., 2006). These variations of low prevalence findings of these studies were attributed to the additional of more stringent diagnostic criteria like international classification of disease (ICD) and other instruments that are less sensitive in detecting depression during postpartum period. The other reasons are due to differences between the population characteristics such as risk factors differences, postpartum cultural beliefs and practices, knowledge of the illness and religious variability.

### Marital Status

The married women 47 (26.9%) had postpartum depression while 71 (40.6%) did not have postpartum depression. For those divorced mothers 15 (8.6%) had postpartum depression while 11 (6.3%) did not have postpartum depression. Among the widowed women 24 (13.7%) had postpartum depression but 7 (4.0%) did not have postpartum depression.

The result of this research showed that there is association between marital status and postpartum depression ( $X^2 = 14.7$ ,  $df = 2$ ,  $P = 5.99$ ) at 0.05 significance level.

### Age

Age ranges of the postpartum mothers from 18-27 years aged 23 (13.1%) had postpartum depression while 45 (25.7%) did not have postpartum depression. Among those aged between 28-37 years, 29 (16.6%) had postpartum depression while 63 (36.0%) did not have postpartum depression. Among those aged 38-47 years 7 (4.0%) had postpartum depression while 8 (4.6%) did not have postpartum depression. There was no significant association between age and postpartum depression ( $\chi = 4.55$ ,  $df = 2$ ,  $P = 5.99$ ) at sig. 0.05. Table 3. This finding is similar with a previous study (Ukaegbe et al., 2012). Other studies reported significant association between postpartum depression and age (Abiodun, 2006; Nakku, Nakasi & Mirembe, 2006; Fisch, Todmor & Dankner, 1997). The findings of this research might be due to more participation of women from 28-38 years 92(52.6%) compared to 68 (38.9%) and 15 (8.6%) participated between 18-27 and 38-47 years respectively. More also, women from 18-28 years have new experience with ambitious to have child, while the last group from 38-47 years have the experiences of stress and unpleasant emotions associated with pregnancy and labor pains.

### Employment Status

The result of the respondents for employment status showed that the employed participants 12 (6.9%) had postpartum depression and 51 (29.1%) did not have postpartum depression, while the unemployed participants 46 (26.3%) have postpartum depression and 66 (37.8%) not depressed. Therefore, employment status in this research was significantly associated with postpartum depression ( $X = 8.9$ ,  $df = 1$ ,  $P = 8.9$  at sig. 0.05). Table 3. Previous literatures indicated similar result that unemployment is one of the high risk factor for postpartum depression in under-developed nations (Chibanda et al., 2014; Patel, Rodrigues & DeSouza, 1991; Adewuya, 2005; Kumar, 1994). The percentage of the unemployed postpartum mothers were more depressed (26.3%) compared to the employed ones (6.9%). Previous study reported that 29 out of 58 unemployed postpartum mothers were depressed (Owoeye et al., 2006). The association of unemployment and postpartum depression in this study could be due to the present socioeconomic decline in Nigeria, where healthcare is expensive with all the financial burden on the patient and their relatives. It has been reported that 86.5% of the population in Nigeria are inaccessible to medical healthcare.

### Education Background

Educational background was not associated with postpartum depression in this study ( $X = 0.04$ ,  $df = 1$ ,  $P = 3.84$  at sig. 0.05). The postpartum women with O-Level (primary and secondary level) 37 (21.1%) had postpartum depression while 74 (42.3%) did not have postpartum depression. For those A-Level (above secondary education) 22 (12.6%) had postpartum depression while 42 (24.0%) did not have postpartum depression.

### Mode of Delivery

Mode of delivery was associated with postpartum depression in this study ( $X = 4.38$ ,  $df = 1$ ,  $P = 3.84$  at sig. 0.05). Out of the 24 mothers that undergoes caesarean section, 14 were depressed. Previous study found 14 out of 36 mothers depressed after having caesarean section (Owoeye et al., 2006). Fear of the outcome of the surgery that is not known by the

patients were most of the reasons for emotional problem by the patient due for surgery.

## SUMMARY AND CONCLUSIONS

The present of postpartum depression among Hausa ethnic group is alarming. Maternal health care givers need to be aware that postpartum depression affects a huge number of women of Hausa ethnic group and that long-term adverse effect of this illness on both the mother's well-being and the child's development can be incapacitating. As most women use maternity health care facilities in the first six weeks following child birth, it is advised that a screening program for postpartum depression be incorporated into the routine postnatal care of mothers. This will identify mothers with postpartum depression for prompt referral, psychiatric evaluation and treatment. The findings of this research is an indication of the need of the health policy makers to come up with mental health policy or package specifically for mood disorder which can assists in overcoming the issue of stigma as a barrier in seeking mental illness treatment. Further study is needed for identifying less-cost effective intervention that sustainable for maternal depression.

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