1STRESS AND SOCIAL SUPPORT AS CORRELATES OF POSTPARTUM DEPRESSION AMONG NURSING MOTHERS IN MAKURDI LOCAL GOVERNMENT AREA OF BENUE STATE

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ABSTRACT

Postpartum depression continues to become one of the major maternal health challenges across the globe though with a paucity of recent data on its magnitude in Africa. Postpartum depression is characterized by loss of interest in usual events, sleep challenges, feelings of sadness, fatigability, problems of appetite, and difficulty in coping with daily activities. This study therefore investigated Stress and Social support as correlates of postpartum depression among nursing mothers in Makurdi local government area of Benue State.

Correlational survey design was used. The researchers used purposive sampling technique to select 195 women across different hospitals and family support program centres in Makurdi local government using sample size determination of creative resource system. Participant's age ranged from 20 – 40 years of age. The following instruments were used for data collection Stress Scale, Multidimensional Scale of Perceived Social Support and Edinburgh Postpartum Depression Scale. Three hypotheses were tested. Hypotheses one and two wesre tested using Pearson product moment correlation while hypothesis three was tested with Multiple Regression Analysis. The result from the stated hypotheses showed that there was a significant positive relationship between stress and postpartum depression among nursing mothers in Makurdi local government area [r (193) = .226; p<.001]. On the other hand, there was a significant negative relationship between social support and postpartum depression among nursing mothers in Makurdi local government area [r (193) = -.398; p<.001]. Furthermore, the result showed that there was a significant joint prediction of stress and social support on postpartum depression among nursing mothers in Makurdi local government area of Benue State [R = .407 and R^2 = .166; F (3, 191) = 12.637; p<.001]. It was therefore recommended that the scientific community particularly psychologists and other health care providers who have daily encounter with postpartum women should note that stress among nursing mother is a risk factor for postpartum depression and therefore should be avoided and social support should be enhanced.

Keywords: Stress, Social Support, Postpartum Depression, Nursing Mothers

INTRODUCTION

Recent research in the area of physical and psychological health related studies have shown that postpartum depression continues to become one of the major maternal health challenges across the globe though with a paucity of recent data on its magnitude in Africa (Atuhaire, Brennaman, Cumber, Rukundo, & Nambozi 2020). Postpartum depression is one of the most challenging complications of post pregnancy due to adverse effects on the health of the mother, infant, family, and community at large (Stewart, & Vigod, 2016). Some of the consequences of postpartum depression include diminished mother to child bonding, childhood growth impairment and underdevelopment, infanticide, and suicide and these behaviours are common particularly among those who have psychological disorders (Henderson, Evans-Lacko, & Thornicroft, 2013).

Postpartum depression is characterized by loss of interest in usual events, sleep challenges, feelings of sadness, fatigability, problems of appetite, and difficulty in coping with daily activities. Clinically, a diagnostic criterion for postpartum depression is occurrence within six weeks to six months following childbirth and symptoms must manifest for at least two weeks. Determining the current global postpartum depression prevalence has remained a challenge due to use of varying assessment tools, adoption of different cut-off points for those tools, the varying cultural contexts, and the dearth of studies carried out in resource-limited environments. Findings continue to show conflicting postpartum depression prevalence rates. Between 2012 and 2016, the global mean prevalence for postpartum depression was reported between 15% and 25%, a higher value than the 12% to13% reported in 2007, thus suggesting an increasing postpartum depression prevalence indicating that it is more rampant by 25% in low-and middle- income countries as compared to developed countries (Atuhaire, Brennaman, Cumber, Rukundo, & Nambozi, 2020).

American Psychiatric Association (APA) (2013) along with O'Hara and McCable (2013) opined thatwomen suffering from postpartum depression experience at least 2 weeks of prevalent depressed mood, irritableness, loss of interest, and sleep problems (APA, 2013). Postpartum depression is a serious and complex disorder that affects approximately one in seven new mothers globally, although prevalence rates may be even greater among socially disadvantaged groups of women. It distinguishable from depression except for its onset within four weeks postpartum and its negative effect on the relationship between mother, her infant and her family. The diagnosis does not include postpartum blues (a mild, transient, emotionally liable condition that is experienced by up to 80% of women during the first two weeks postpartum) or postpartum psychosis (an emergency condition with onset typically within the first two weeks postpartum that is characterized by confusion, mania, hallucinations, bizarre behaviour and homicidal ideation). Most of the new mothers experienced mood changes; tearfulness and irritability during or after the baby's birth and this is often referred to as maternity blues. The blues last for days and are believed to be a response in child birth. These sudden hormonal shifts sometimes become abnormal for most women following child birth (Sarah, Forozan, & Leila, 2017).

Increasingly, the empirical literature examining risk factors for maternal postpartum depression with samples drawn from the western world has begun to parallel the broader depression literature, with special consideration given to the role of stressors and social support (Swendsen & Mazure 2000; Beck 2001). An investigation on the role of stress and social support on postpartum depression using Nigeria sample may be seen as important not only to enhance knowledge and understanding of the patients' experience but also for the successful implementation of policies and strategies in depression management care services and interventions on the Nigerian population.

By definition, stress is any life event that disrupts and negatively influences an individual's emotional and cognitive processes. One of the stressors found among pregnant women is the type of delivery i.e. the traditional childbirth practice and the modern health care method. In the conflict between more traditional beliefs and the modern health care, misunderstandings occur easily. The traditional childbirth practices have not totally disappeared in Benue but have gradually diminished. The traditions were followed more by the rural women and by some poor urban women. While women are in the hospital, they may comply with current postpartum practice in the health care system and this might cause stress. In traditional Benue culture, having a male child to continue the family linage is an important and revered concept. Although civilization has brought changes in gender roles, the traditional mind set prevails, particularly among members of older generations. There is no legal restriction on how many children couples may have. If the first born is a female child, couples may have as many children as they desire to have a male child. Not having a male child could cause extreme stress among parents particularly among women. Such woman may be despised, stigmatized, neglected and abused by friends, siblings, parents and in-laws who are deeply disappointed for loss of family name in the community. Thus, it is not uncommon for women to undergo sex-selection abortion after ultrasonography. Chan, Warrick, Andriola, Merry and Bonini (2002) found that Hong Kong women who had a diagnosis of postpartum depression found sex of the baby to be a source of stress, and discord occurred between the younger generations, who had generally received a Western education in Hong Kong, and their parents who were traditional Chinese. Although the young couples had no sex preference, the extended family desired a male baby. Differences in value systems between the two generations may be more apparent at the time of childbirth and this could lead to extreme stress (Chan et al., 2002).

Consequently, there is evidence to suggest that social support plays a role in postpartum depression (Beck, 2001). McLeod and Kessler (1990) noted that being integrated into social network and receiving high levels of social support are important for mental health and wellbeing. Social support is the physical and emotional comfort given to one by the person's family, friends, co-workers and others. It entails knowing that one is a part of a community of people who love

and care for one, and value and think well of one. It has been argued that social support is too complex to be limited to a single theoretical concept (Oluwole, Hammed, & Awaebe, 2010). As a result, comprehensive models that incorporate the major elements of the most current conceptualization of social support have been developed 9 Oluwole, et al, 2010). The following six dimensions of social support were proposed for a comprehensive understanding of social support; attachment which refers to feelings of safety and security in close emotional bond; social integration which means knowing that interests and concerns are shared by others; reassurance of worth which refers to knowing that skills and capacities are acknowledged and valued by others; reliable alliance which is the assurance that tangible assistance is available if needed; guidance which is the availability of authoritative others to provide advice; and opportunity for nurturance which is the sense of being needed in vital ways by other persons.

Understanding risk factors is central to identifying, treating, and preventing postpartum depression, however, we continue to lack a clear knowledge of the most salient risk factors related to postpartum depression, as well as those factors that may serve to exacerbate or alleviate the risk of postpartum depression in this part of the world. Increasingly, the empirical literature examining risk factors for maternal postpartum depression with samples drawn from the western world has begun to parallel the broader depression literature, with special consideration given to the role of psychosocial variables such as perceived stress and social support (Swendsen & Mazure, 2000; Beck, 2001). Based on studies conducted as revealed, it is obvious that there is very little or no study on stress and social support as correlates of postpartum depression among women in Makurdi local government area of Benue State.

Based on this, it is therefore postulated that;

i. There will be a significant relationship between stress and postpartum depression among nursing mothers in Makurdi local government area of Benue State.
ii. There will be a significant relationship between social support and postpartum depression among nursing mothers in Makurdi local government area of Benue State.
iii. Stress and perceived social support will jointly predict postpartum depression among nursing mothers in Makurdi local government area of Benue State.

REVIEW OF RELATED LITERATURE

Given the high co-occurrence of depression and parental stress among adolescent mothers, Maureen, Kartik, Elizabeth, & Caron (2014) evaluated the relationship between parental stress and postpartum depression among primiparous adolescent mothers. The authors conducted an observational analysis among a cohort of 106 adolescent mothers at 289 postpartum visits that were enrolled in a randomized controlled trial to prevent postpartum depression. Parental stress was measured using the Parenting Stress Index, short form. The researchers present adjusted odds ratios (AOR) controlling for study arm, age, born in the United States, prior history of depression, and number of study visits. The median age was 16 years, 53% were Latina, and 16 % reported a past history of depression. Nineteen adolescents (19%) were diagnosed with postpartum depression and 25% experienced high levels of parental stress through 6 months postpartum. Adolescent mothers who reported higher levels of parental stress were at significantly increased risk for postpartum depression [AOR 1.06 (95% CI 1.04–1.09); p <0.0001]. High levels of parental stress predicted subsequent postpartum depression when assessing parental stress at visits prior to a depression diagnosis to determine whether we could establish a temporal association [AOR 1.06 (95% CI 1.02– 1.09); $p < 0.01$]. Parental stress was also a risk factor for sub-threshold depression [AOR 1.04 (95% CI 1.01– 1.07); $p < 0.01$]. Parental stress was a significant risk factor for developing both postpartum depression as well as sub-threshold depression among adolescent mothers. Interventions that target a reduction in parental stress may lead to less depression severity among primiparous adolescent mothers was recommended.

Moreover, Devita, (2016) conducted a study aimed at examining effect of stress also social support then with postpartum depression women in Indonesia. A descriptive correlational study was conducted February-March 2015. The 138 participant was recruited from Public Health Sokaraja II in Banyumas area, Central Java, from postpartum visiting in public health and home visit using convenience sampling. This study used 3 instruments, they were Edinburgh Postpartum Depression Scale (EPDS), Perceived Stress Scale (PSS-10) and inter-personal Support Evaluation List (ISEL) included the demographic data. The result indicated that, the effect of stress in postpartum depression were perceived stress and social support significant difference between no depression and depression groups with PSS mean -3.195 (*t*=- 4.573, df=136), ISEL mean 3.676 (*t*= 3.336, df=136). The study concluded that, the effect of stress and also social support was involved in the prevalence of postpartum depression. Their finding suggested further research about intervention based on cultural influences in Indonesia setting to improve nurse knowledge.

Worthy of mention is the fact women undergo stress at different stages after delivery. For instance, there are many normal psychical changes that occur the following weeks after delivery. Women can feel stressed that their bodies do not return back to their pre-pregnant state. Hung (2007) showed in a study, that body changes were one of the most perceived top five postpartum stressors, regardless from what postpartum week it was. One of the biggest concerns was the notion - “the flabby flesh of my belly”. This identification is probably a result from how the participating women perceive today’s society with focus on fitness and body appearance.

Goker, Yanikkerem, Demet, Dikayak, Yildirim and Koyuncu, (2012) looked at the effect of mode of delivery on the risk of postpartum depression. A total of 318 women who applied for delivery were included in the study. Previously diagnosed foetal anomalies, preterm deliveries, stillbirths, and patients with need of intensive care unit were excluded from the study. Data about the patients were obtained during hospital stay. During the postpartum sixth week visit Edinburgh postpartum depression scale (EPDS) was applied. There was no significant difference between EPDS scores when compared according to age, education, gravidity, wanting the pregnancy, fear about birth, gender, family type, and income level (Goker, et al 2012). According to them, those who had experienced emesis during their pregnancy, had a history of depression, and were housewives had significantly higher EPDS scores. Delivering by spontaneous vaginal birth, elective Caesarean section, or emergency Caesarean section had no effect on EPDS scores. They concluded based on their finding that, healthcare providers should be aware of postpartum depression risk in nonworking women with a history of emesis and depression and apply the EPDS to them for early detection of postpartum depression.

A substantial body of evidence has accumulated documenting the beneficial effects of social ties and supportive relationships on mental health outcomes in general (Thoits 2011), and maternal postpartum depression in particular (Beck 2001; Robertson et al. 2004; Webster et al. 2011). Much in line with the literature on major depression (Horenstein & Cohen 2008), women who report higher levels of social support have been found to report fewer symptoms of depression following childbirth compared to women with less supportive networks (Bost et al. 2002; Webster, Velacott, & Fawcett 2011). Moreover, low social support has been found to be one of the strongest predictors of PPD across several meta-analyses of risk factors (Beck 2001; Robertson et al. 2004), highlighting the importance of supportive relationships for maternal well-being during the postpartum period.

Farhana., Munza., Roshan, Sher, and Asima. (2013) investigated the postpartum depression among the women in Hazara Division. The purpose of the study was to measure the prevalence of postpartum depression among the married women and also check the relationship of social support with the level of severity of postpartum depression. The Study design was convenience sampling technique. 1000 women from the Hospitals and Postpartum Clinics of Hospitals (Ayub Medical complex Abbottabad, Women & Children hospital Abbottabad participated in the study.

DHQ Hospital Mansehra and Balakot through convenient sampling technique. Present study includes women who gave birth to a baby in Hazara Division. The study utilized and sampled women with the age ranging from 18-45 years with the symptoms of postpartum depression were approached from the different areas of Abbottabad and District Mansehra. An indigenously developed postpartum depression scale in Urdu language was used to measure the variables of interest. Results showed that Postpartum depression among women with reliability (r= .86). 200 women were found depressed on the postpartum depression scale. Result indicates that prevalence of postpartum depression stands 20% overall. t-test showed that higher the social support lesser would be the postpartum depression and vice versa of this reason may become a risk to develop postpartum depression.

According to Kazmi, Khan, Dil and Khan (2013), women living in joint setup receive more social support from their family, friends or spouse are less likely to be sufferer of postpartum depression, as compared to those women living in nuclear family setup who have received less social support. Study offers further guidelines to the researchers to explore various unidentified dimensions of postpartum depression with reference to biological and genetic factors.

In times of psychological needs, it has been suggested that social support network can provide emotional sustenance and informational guidance as well as tangible assistance (Cherry, 2020). Research suggests that social support may serve to mitigate the negative psychological and health impact of stressors. A woman's partner can provide a range of support, including taking part in antenatal classes and providing support in times of stress. There is evidence that the presence of a supportive partner has a positive effect on both general level of well-being and level of depression in new mothers (Nolean-Hoeksema, 2000).

Adewoya, Ola, Dada, and Fasotor (2006) studied the prevalence and associated risk factors of postpartum depression among Nigerian women. The instruments used for the study was the Edinburgh Postpartum Depression Scale. The result indicated that of the 180 women studied, 8.3% met the criteria for diagnosis of a depression disorder, and the associated risk factors included perceived lack of social support. Findings from this study linked social support to postpartum depression. A study by Zelkowitz, Saucier, Wang Katofsky, Valenzuela and Westreich (2008) investigated the quantitative changes in mental health and functional status in immigrant postpartum women. Participants were 106 immigrant postpartum women in Canada. Instrument for data collection was Postpartum Depression Scale. Findings indicated that women with risk factors are more likely to develop postpartum depression especially those with less support from the family. This is an indicator that poor social support plays a role in postpartum depression.

Adejuwon, Adekunle, and Ojeniran (2014) examined the influence of social support(perceived emotional support, perceived instrumental support, need for support, support seeking and actually received support, and personality traits, (conscientiousness, openness to experience and neuroticism) on psychological well-being(somatic symptoms, anxiety, and insomnia, social dsyfunctions, and severe depression) of postpartum nursing mothers. Two hundred and fifty – eight nursing mothers (N=258; Mean age= 29.05) whose postpartum period was between 0-3 months, participated in the study. The findings from the study showed that young nursing mothers significantly scored higher on somatic symptoms (mean score=11.24) than old nursing mothers(mean score=10.180); t=2.040; df=256; p<.05. Also, young nursing mothers significantly reported higher level of severe reported depression(mean score=12.034) than old nursing mothers(mean score=10.693); t=2.368; df=256; p<.05. This study provides an understanding of the importance of social support provided to nursing mothers and maternal age on the psychological well-being of nursing mothers in the first three months postpartum period.

In addition, Mohammed, Mustaffa, Deviga, Aqeel, and Roslee (2014) in their studied of the influence of social support during pre-natal and post-natal stage on maternal depression and mental well-being found that a negative correlation existed between social support and maternal depression while a positive correlation existed between social support and maternal well-being.

Their findings established that social support was a crucial factor in the reduction of depression and stress.

Glasser, Boyko, Ziv, Lusky, Shoham, and Hart (2000) studied the risk factors and prevalence of postpartum depression among Israeli women. The participants studied were 288 Israeli women who were assessed using the Edinburgh Postpartum Depression Scale. Findings indicated that lack of social support and marital disharmony were specific factors identified. Small, Lamely and Yelland (2003) examined the risk factors and prevalence of postpartum depression among immigrant women. The populations studied were 318 Vietnamese, Turkish, Filipino immigrant women in Australia. Personal interviews (postpartum) were used in assessing the women. No screening scale was used. Findings indicated that isolation, lack of social support and marital issues were associated with postpartum depression.

From the review of related literature, it is obvious that postpartum depression is affected stress and individual's level of social support either from family, friends and significant others. Studies reviewed are mostly not domesticated meaning that studies of this nature are not documented particularly in Makurdi local government area of Benue State. This study therefore filled the gap of lack of studies in this regard, particularly in Benue State, Nigeria.

METHOD

Design

The research design that was used for this study was the correlational survey design. The researchers adopted the use of questionnaire to carry out the study. The researchers used this design because the researchers did not directly manipulate the variables involved. The setting of the study was in Makurdi local government area which is one of the 23 local governments in Benue State and which houses the state capital.

Participants

Participants in this study comprises of 195 women across different hospitals and family support program centres in Makurdi local government of Benue state, Nigeria, using sample size determination of creative resource system. Participants' age ranged from 20 – 40 years of age. Among the sampled participants, 70 (35.9%) stayed in their marriage between 1 – 5 years, 88 (45.1%) stayed in their marriage between 6 – 10 years while 37 (19.0%) stayed in their marriage between 11 years and above. On their educational qualification, 49 (25.1%) had no education/primary education, 146 (74.9%) had secondary/tertiary education. On the employment status, 84 (43.1%) were employed while 111 (56.9%) were unemployed. On the basis of method of delivery, the result showed that 161 (82.6%) had vagina delivery while 34 (17.4%) had caesarean delivery. On the other hand, 97 (49.7%) of the respondents had boy as a sex of the child while 98 (50.3%) had girl child.

Instruments

The instrument used for this study is a questionnaire comprising of three standardized scales which were stress scale, multidimensional scale of perceived social support and Edinburgh postpartum depression scale.

The stress scale used for this study is a 14-item scale developed by Cohen et al., (1983) to measure Perceived stress across cultures and has shown to be relatively free of social desirability bias (Cohen, Kamarck, & Mermelstein, 1983). The 14 items that are rated on a 5-point scale that ranges from never = 0; Almost never = 1; Sometimes = 2; Fairly often = 3; and very often = 4. The scale was pilot tested and a cut of mark of 28.8 was obtained using one point above the standard deviation. The reliability coefficient using the pilot study was obtained at .75 Cronbach's Alpha. Multidimensional Scale of Perceived Social Support is a 12-item scale developed by Zimet, Dahlem, Zimet and Farley (1988) to measure perceived social support across cultures (Canty-

Mitchell & Zimet, 2000; Chou, 2000). The MSPSS has been shown to be relatively free of social desirability bias (Dahlem, Zimet & Walker, 1991). The 12-item MSPSS provides assessment of three sources of support: family support, friends support and significant others support. It is scored on a 5-point Likert-type structure from 1 “strongly disagree” to 5 “strongly agree”. Items 3, 4, 8 and 11 measure family support; items 6, 7, 9 and 12 measures friend support while items 1, 2, 5, and 10 measures significant other support. The reliability coefficient of the social support scale was .88 Cronbach’s alpha while the three dimensions of friends, family and significant other was gotten at .91, .87 and .85 Cronbach’s alpha respectively.

Edinburgh Postpartum Depression Scale (EPDS) which was developed by Cos, Holden and Sagovsky (1987) to assess mothers suffering from postpartum depression. The instrument has 10 items and the mothers were asked to tick the possible response options closest to how they have been feeling during the past week. This instrument has been used in research with Nigerian samples (Adewuya et al., 2006; Uwakwe & Okonkwo, 2003). A Cronbach’s alpha of .87 was obtained for reliability. Data were collected and analyzed using Statistical Package for Social Science (SPSS).

RESULTS

Hypothesis One:

This hypothesis states that there will be a significant relationship between stress and postpartum depression among nursing mothers in Makurdi local government area of Benue State. The hypothesis was tested using Pearson’s Product Moment Correlation and the result is presented in table 1.

Table 1: Summary table for Pearson’s product moment correlation showing the relationship between stress and postpartum depression among nursing mothers in Makurdi local government area

Variables	Mean	SD	r	df	P
Stress	32.87	15.39			
			.226	193	<.001
Postpartum Depression	27.08	5.64			

The result in table 1 shows that there was a significant relationship between stress and postpartum depression among nursing mothers in Makurdi local government area of Benue state [r (193) = .226; p<.001]. Observation further revealed a positive relationship indicating that the more nursing mothers are stressed, the more the rise in their level of postpartum depression and vice versa. Hypothesis one which stated that ‘there will be a significant relationship between stress and postpartum depression among nursing mothers in Makurdi local government area of Benue State’ was therefore confirmed.

Hypothesis Two

This hypothesis stated that there will be a significant relationship between social support and postpartum depression among nursing mothers in Makurdi local government area of Benue State. To test this hypothesis, Pearson’s product moment correlation was used and the result is presented in table 2.

Table 2: Summary table for Pearson's product moment correlation showing the relationship between social support and postpartum depression among nursing mothers in Makurdi local government area

Variables	Mean	SD	r	df	p
Social Support	31.76	10.22			
			-.398	193	<.001
Postpartum Depression	27.08	5.64			

Result in table 2 shows that there was a significant negative relationship between social support and postpartum depression among nursing mothers in Makurdi local government area of Benue state [r (193) = -.398; p<.001]. Observation shows a negative relationship indicating that nursing mothers who have high level of social support have less postpartum depression and vice versa. Based on this result, hypothesis two which stated that 'there will be a significant relationship between social support and postpartum depression among nursing mothers in Makurdi local government area of Benue State' was therefore accepted.

Hypothesis Three:

This hypothesis stated that stress and perceived social support will jointly predict postpartum depression among nursing mothers in Makurdi local government area of Benue State. This hypothesis was tested using multiple regression analysis and the result is presented in table 3.

Table 3: Multiple regression analysis summary table showing the joint prediction of stress and perceived social support on postpartum depression among nursing mothers in Makurdi local government area

DV	Predictor(s)	R	R2	F	df	β	T	P
Postpartum Depression		.407	.166	12.637**	3, 191		10.149	<.001
	Stress					.290	3.249	<.05
	Social support					-.363	-4.979	<.001

** Sig at p<.001

Result in table 3 shows that there was a significant joint prediction of stress and social support on postpartum depression among nursing mothers in Makurdi local government area of Benue state [R = .407 and R^2 = .166; F (3, 191) = 12.637; p<.001]. Observation shows that stress [β = .290, t = 3.249; p<.05] and social support [β = -.363, t = -4.979; p<.001] significantly and independently predicted postpartum depression among nursing mothers in Makurdi local government area of Benue State. Based on this result, hypothesis three which stated that 'there will be a significant joint prediction of stress and social support on postpartum depression among nursing mothers in Makurdi metropolis' was therefore accepted.

DISCUSSION

In this section, the stated hypotheses are discussed in line with the study and in connection with other studies that were conducted that are related to this study. This study investigated on stress and social support as correlates of postpartum depression among women in Makurdi local government area of Benue State. Three research hypotheses were formulated and tested and the result is presented in the previous chapter.

The first hypothesis which stated that stress will significantly correlate postpartum depression among women in Makurdi local government area of Benue State was tested using Pearson's Product Moment Correlation and the result indicated that stress has a negative relationship with postpartum depression among women in Makurdi local government area of Benue State. It was found that high level of stress resulting from several factors has positive relationship with

postpartum depression such that as the stress of nursing mothers increases, their level of postpartum depression also increases and vice versa. This finding is consistent with that of Maureen, Kartik, Elizabeth, & Caron (2014) who evaluated the relationship between parental stress and postpartum depression among primiparous adolescent mothers. In their observational analysis among cohort of 106 adolescent mothers at 289 postpartum visits that were enrolled in a randomized controlled trial to prevent postpartum depression, adolescent mothers who reported higher levels of parental stress were at significantly increased risk for postpartum depression.

Furthermore, their findings indicated that, high levels of parental stress predicted subsequent postpartum depression when assessing parental stress at visits prior to a depression diagnosis to determine whether we could establish a temporal association.

Also consistent with this study is the finding by Ghorbani, Krauss, Watson and LeBreton, (2008) who conducted a study which sought to clarify the importance and cross-cultural relevance of associations between generalized perceived stress and depression. According to them, perceived stress did predict anxiety better than depression, but perceptions of control predicted depression significantly better than anxiety only in the United States. Their finding seemed to disconfirm any possible suggestion that a supposedly individualistic process like internal control could have no noteworthy role within a presumably more collectivistic Muslim society like Iran. Ling-ling et al. (2008) further buttressed that, perceived stress, social support, and partner's depression were significantly associated with depression.

The second hypothesis which stated that social support will significantly correlate postpartum depression among women in Makurdi local government area of Benue State was tested using correlational analysis and the result indicated that social support do not significantly have a relationship with postpartum depression among women in Makurdi local government area of Benue State. This is an indication that nursing mothers who have social support from either friends, family or significant others have less level of postpartum depression compared to those who have little or no social support at all. Several studies are done in the area of social support as it predicts postpartum depression among women though most are not in line with the finding under consideration. For instance, Letourneau *et al*. (2007) opined in qualitative analyses of support needs that, several women who had experienced postpartum depression felt that support from their intimate partner was limited due to their partner's inability to understand the adjustments required of motherhood. For them rather, these women felt family and friends, particularly female friends and relatives with whom they had trusting relationships, were more important sources of support.

In addition, Adejuwon, Adekunle, and Ojeniran (2014) examined the influence of social support on psychological well-being (somatic symptoms, anxiety, and insomnia, social dsyfunctions, and severe depression) of postpartum nursing mothers. The findings from the study showed that young nursing mothers significantly scored higher on somatic symptoms (mean score=11.24) than old nursing mothers (mean score=10.180); t=2.040; df=256; p<.05. Also, young nursing mothers significantly reported higher level of severe reported depression (mean score=12.034) than old nursing mothers (mean score=10.693); t=2.368; df=256; p<.05. This study provides an understanding of the importance of social support provided to nursing mothers and maternal age on the psychological well-being of nursing mothers in the first three months postpartum period.

Also, Mohammed, Mustaffa, Deviga, Aqeel, and Roslee (2014) in their studied of the influence of social support during pre-natal and post-natal stage on maternal depression and mental well-being found that a negative correlation existed between social support and maternal depression while a positive correlation existed between social support and maternal well-being. Their findings established that social support was a crucial factor in the reduction of depression and stress. Farhana, Munza, Roshan, Sher and Asima (2013) further opined that, prevalence of postpartum depression stands 20% overall. Their study using t-test showed that higher the social support,

lower would be the postpartum depression and vice versa and it could be a contributing factor to developing postpartum depression.

The third hypothesis which stated that there will be a significant joint prediction of stress and social support on postpartum depression was tested using multiple regression analysis and the result indicated that there was no significant joint influence of stress, level of education and social support on postpartum depression among women in Makurdi local government area of Benue State. It has been established that stress has positive relationship with postpartum depression meaning that when stress is high, postpartum depression is also high. In the same vein, social support has negative relationship with postpartum depression meaning that when there is high level of social support, postpartum depression among nursing mother reduces. Therefore, it is pertinent to mention that social support among nursing mothers is very key to reducing even the stress they experience and thereby reducing their level of postpartum depression.

Areias et al., (1996a, b) and Zelkowitz and Milet, (2001) further buttressed that a high level of life stress among women is a risk factor to postpartum depression and in this case, social support becomes a protective factor against postpartum depression particularly when it is provided. This means that providing nursing mothers with adequate social support goes a long way in reducing their stress and at the same time prevents them from undergoing postpartum depression.

Conclusion and Recommendations

Based on the findings of this study, it was concluded that social stress is positively related to postpartum depression while social support is negatively related to postpartum depression among nursing mothers in Makurdi local government. In the same vain, it is concluded that stress and social support jointly predict postpartum depression among nursing mothers in Makurdi local government area of Benue State.

It was therefore recommended that the scientific community particularly the psychologists and other health care providers who have daily encounter with postpartum women should note that stress among nursing mother is a risk factor for postpartum depression and therefore should be avoided. Apart from medical assessment of women during child bearing, proper psychological assessment could help to delve into some psychological variables implicated in postpartum depression. Psychological interventions such as stress inoculation training, and cognitive behaviour therapy could be implored to help relief patients of their postpartum depression.

Since there are individual differences in response to stressful life events like child bearing, there is however the need for the medical personnel to understand the psychological traits of postpartum women in the early stage of hospitalization so that such patients can be giving special assistance. It is also needful for healthcare providers to understand the importance of encouraging quality social support from family and friends during the child bearing experience. Thus, the quality of care received from healthcare providers could be a significant determinant of the patient's psychological well-being. To this effect, the researchers are of the opinion that there is need for the medical practitioners and developmental psychologists to collaborate in their effort to bring proper postpartum depression management and care to postpartum women.

Because postpartum depression is one of the most common treatable complications of the postpartum period, it is paramount that health workers identify and manage the condition promptly and effectively

Future studies should endeavor to extend this area of research to other delivery centers located in other geographical locations in Nigeria. This will help not only in creating awareness on postpartum depression and its impacts but also in the generalization of its findings to the entire populace. Future studies could also replicate this work using experimental method where some confounding variables could be properly controlled. Moreover, developmental psychologists could

put more effort in finding more psychological variables that are linked to this psychosomatic experience.

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