

Original Article

Social Support and Personality Traits as Predictors of Psychological Wellbeing of Postpartum Nursing Mothers in Oyo State, Nigeria

Adejuwon, Grace A. PhD

Professor of Developmental Psychology, Department of Psychology, Faculty of the Social Sciences, University of Ibadan, Nigeria.

Adekunle Itunuoluwa F. MSc Student of Psychology

Department of Psychology, Faculty of the Social Sciences, University of Ibadan, Ibadan, Oyo State, Nigeria

Ojeniran, Moyinoluwa

Braun School of Public Health, Hebrew University of Jerusalem, Jerusalem, Israel

Correspondence: Adejuwon, Grace A, PhD Professor of Developmental Psychology, Department of Psychology, Faculty of the Social Sciences, University of Ibadan, Nigeria. Email: gaadejuwon@gmail.com

Abstract

Nigeria is one of the countries that have the highest maternal death rate during and after delivery among the developing countries. As such, maternal general health issue has always been a subject of interest in research and policy formulation. Consequently, this study examined the influence of social support and personality traits on psychological wellbeing (somatic symptoms, anxiety and insomnia, social dysfunctions, and severe depression) of nursing mothers.

Using survey design, 258 nursing mothers (Mean age = 29.05) whose postpartum is between 0-3months were purposively and accidentally sampled in two selected hospitals in Oyo State, Nigeria. The hypotheses were tested using inferential statistics.

The results showed that social support and personality traits jointly predicted the four subscales of psychological wellbeing respectively as indicated: 3.6% of Somatic Symptoms, 4.7% of Anxiety and Insomnia, 3.5% of Social dysfunctions and 6.9% of Severe Depression. Of the social support subscales, only perceived emotional support was found to independently and significantly predict Social Dysfunctions. 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 depression (mean score = 12.034) than old nursing mothers (mean score = 10.693); $t = 2.368$; $df = 256$; $p < .05$. Nursing mothers with no formal education and those with low education reported higher levels of somatic symptoms, anxiety and insomnia and severe depression than those with high school and tertiary education. This study provides an understanding of the importance of social support provided to nursing mothers, age and level of education on the psychological wellbeing of nursing mothers in the first three months postpartum period.

Keywords: Social Support, Personality, Psychological wellbeing, Postpartum nursing mothers, Nigeria.

Introduction

Maternal general health issue has always been a subject of interest in health and field of psychology which encompasses the health care dimensions of family planning, pre-conception, prenatal and postnatal care. Nigeria is one of the countries that

have the highest maternal death rate during and after delivery (Global one, 2015). The effects of mother's deaths and even depressive symptoms results in vulnerable families, and their infants, if they survive childbirth, they are more likely to die before reaching their second birthday or suffer psychological disorders later in life (WHO

maternal health, 2015). Given the prevalence of maternal morbidity, the repercussion it has for the health and wellbeing of nursing mothers calls for concerns, hence, the need to investigate the social and personality factors that account for their psychological wellbeing. Psychological wellbeing is described as the quality of a life of a person and it includes what a lay people call “happiness”, “peace”, “fulfillment” and “life satisfaction”. Huppert (2009) opines that psychological wellbeing is about life going well. It is the combination of feeling good and functioning effectively. Sustainable wellbeing does not require individuals to feel good all the time; the experience of painful emotions (for example, disappointment, failure, grief) is a normal part of life, and being able to manage these negative or painful emotions are essential for long-term wellbeing. Psychological wellbeing is however, compromised when negative emotions are extreme or last very long and interferes with a person’s ability to function in his or her daily life (Huppert, 2009). The concept of feeling good incorporates not only the positive emotions of happiness and contentment but also such emotions as interest, engagement, confidence and affection. Functioning well (in a psychological sense) involves the development of one’s potential, having some control over one’s life, having a sense of purpose and experiencing positive relationships. Correspondingly, Carol (1991) states that convergence of similar features of positive psychological functioning, constitutes the core dimensions of psychological wellbeing. Kumar (2006) observes that conceptions of wellbeing are integrally related to how one values the nature of man and what perspective is valued. In alignment with Kumar’s opinion, psychological wellbeing is a broad term that encompasses different psychological functioning such as general health, life satisfaction, attitudes, just to mention a few. As a consequence, ‘psychological wellbeing’ is defined as the general health of a person specifically as it relates to nursing mothers. In this study psychological wellbeing is defined in terms of general health (somatic symptoms, anxiety and Insomnia and severe depression). According to Saurel-Cubizolles, Romito, Lelong, Ancel, (2000), physical and psychological problems after childbirth are common, and may have a significant

negative and possibly long-term impact on women’s well-being and daily functioning. According to Rolands and Redshaw (2012), the experience of childbirth can be complex due to a range of individual, medical and social factors that can interact to influence women’s experiences and outcomes.

Mode of delivery has been consistently identified as influencing the duration and severity of women’s physical and psychological wellbeing following childbirth (Rowlands and Redshaw 2012; Soderquist, Wijma and Wijma, 2002; Creedy, Shochet and Horfall (2000). are various methods through which a woman can give birth to her child; these are unassisted vaginal birth (*is a normal delivery though which a mother gives birth to her baby*); assisted vaginal birth (*this is through use of instruments like forceps, induced labor, or when the hole of the vagina had to be torn to allow the baby come out. This is typically done during a contraction while the mother pushes.*); and caesarean section (*it is a surgical procedure in which one or more incisions are made through mother’s abdomen and uterus to deliver the baby*). As proposed by Guittier, Cedraschi, Jamei, Boulvain, and Guillemin, (2014), a positive delivery experience can result in a sense of accomplishment and feelings of self-worth and self-confidence. In other words, positive child delivery experiences could be associated with positive emotions, sense of gratitude and competence among mothers. Detrimental consequences of negative delivery experience have been identified in several studies. These could range from feelings of maternal distress (Emmanuel and St John, 2010) to postpartum depression (Zaers, Waschke, Ehlert, 2008; Garthus-Niegel, von Soest, Vollrath, Eberhard-Gran, 2013; Shlomi Polachek, Huller Harari, Baum, Strous, 2014, Alexandrou et al., 2018) and even post traumatic disorder (O’Donovan, Patrick , Creedy, Dawe, Devilly, 2014). However we propose that adequate and effective social support as perceived by the participant could make up for the negative outcomes of delivery experience. Yoruba ethnic group is noted for providing overwhelming social support for the nursing mothers. This is because in the traditional African family every neonate is treasured, received with joy and welcomed with a naming ceremony

(*Isomo l'oruko*) which involves the members of the extended family, friends of the family, co-workers and neighbours into the society. The members of the community cooperate to provide all the needed materials for the ceremony since it also involves entertainment of guests after the naming ceremony. This study therefore aims to explore the impact of the social support received by nursing mothers irrespective of the childbirth experience on the psychological wellbeing.

Social support may be described as the emotional, instrumental or tangible aid exchanged between members of the networks. Social relationships play a central role in shaping the quality of people's lives. Social support provided to nursing mothers of neonates has been entrenched into the African culture. Definitions of social support emphasize the perception or provision of resources available to an individual from those within his or her social network (Dunkel, Schetter and Brooks 2009; Gottlieb & Bergen 2009; Thoits 2011).

In the traditional extended family structure it is provided by the old women and indeed every member of the extended family. Pregnancy and child birth are considered as important and delicate events that require a lot of preparation and support to ensure the well-being of both the woman and the child. Social support has been found to be related to psychological well-being in a number of studies.

For example Mohammed, Mustaffa, Deviga, Aqeel and Roslee (2014), found that a negative correlation existed between social support and maternal depression while positive correlation existed between social support and maternal wellbeing. Ren, Jiang, Yao, Li, Liu, Pang, (2015); Keshia, (2014) established that social support was a crucial factor in the reduction of depression and stress. In view of the above this research examines whether social support received by nursing mothers in Ibadan between 0-3 months after delivery would improve their psychological wellbeing.

Personality traits have been found as predictors of postpartum depression and other psychological disorders (NHMRC, 2000). From the foregoing, physical and psychological problems after childbirth are common and may have a significant

negative and long-term impact on women's wellbeing and daily functioning. Though there is limited evidence to show the relationship between personality traits and psychological wellbeing, researchers have found strong relationship between personality and postpartum depression (Saudina, 2014). He found a significant correlation between neuroticism and postpartum depressive symptoms. Other personality traits such as conscientiousness and openness to experience were also found to be significant predictors of postpartum depression (O'Hara & Swain, 1996; Dudley, Roy, Kelk and Bernard, 2001). Therefore personality and psychological wellbeing may be associated due to its link with depressive symptoms. Hence this study investigated the influence of personality traits on the psychological wellbeing of the nursing mothers.

Rowlands and Redshaw 2012; Adams; Eberhard-Gran, Sandvik, Eskild, (2012) found that psychological, postpartum emotional distress, are determinants of physical wellbeing in the postnatal period. Among Nigerian population, personality traits and social support have not been adequately elucidated in previous research with respect to their combined influence and relationship with psychological well-being of nursing mothers.

Moreover, it is difficult to generalize findings in foreign literature because of various social, environmental and cultural factors associated with postpartum experiences of women. Therefore, this study investigated the combined influence of personality traits and social support, on psychological wellbeing of nursing mothers within postpartum period.

Statement of hypotheses

1. Social support and personality traits will have significant joint and independent influence on psychological wellbeing of nursing mothers.
2. Young nursing mothers will score significantly higher on somatic symptoms, anxiety and insomnia than older nursing mothers.
3. There will be a significant difference among the levels of educational status on psychological wellbeing (somatic Symptoms, Anxiety and Insomnia, Social Dysfunctions and Severe Depression) of nursing mothers.

Research Methods

Research protocol was submitted to the Oyo State Ministry of Health ethics Review Committee and was approved by the ministry via their letter Ref No AD 13/479 prior to the commencement of the study for implementation. The research was conducted in Adeoyo Maternity teaching Hospital, Yemetu, Ibadan and State Hospital, Ogbomoso (both hospitals are located in Oyo State).

The questionnaires were translated to Yoruba language and back translated to English language. The purpose for translating to Yoruba language was to accommodate participants that are not fluent in speaking and reading English Language. The questionnaires were administered to nursing mothers whose postpartum period is not more than three months in the selected hospitals.

Informed consent was obtained from each of the respondents after explaining to them the purpose of the study and their liberty to choose to participate or not in the research work. Confidentiality of each participant was maximally maintained during and after the collection of data. The ex post facto design was adopted while cross-sectional survey was used for this study. Participants in the study were nursing mothers that brought their infants for immunization in the selected hospitals (Adeoyo Maternity Teaching Hospital, Yemetu, Ibadan and State Hospital, Ogbomoso).

Data were also collected from women that just put to bed that were lying in wards. These women are those whose postpartum period is not beyond three months. Three hundred questionnaires were administered, however, two hundred and fifty eight were properly filled among the ones returned and were used for this research. Their ages ranged from 15 – 44 years (\bar{x} 29.05 SD = 4.94). Multi-stage sampling technique was adopted in selecting the setting for this study which was the two oldest hospitals in Oyo state, Adeoyo Maternity Hospital, Yemetu, Ibadan and Ogbomoso State Hospital, Ogbomoso.

Accidental and purposive sampling methods were used to recruit participants for this study. Nursing mothers who met the selection criteria and agreed to willingly participate in the study were selected. They were eligible women who came for postnatal care and those who brought their infants for

immunization in the selected hospitals. The justification for this sampling technique lies in the very nature of the participants- nursing mothers who were available at the sample site.

Instruments

Socio-demographic information about nursing mothers such as age, religion, marital status, educational level, spouse's occupation, date of delivery, mode of delivery and monthly allowance were collected from the participants.

Social Support: The Berlin Social Support Scale (BSSS) was used to measure social support. BSSS was created by Schwarzer and Schulz (2000). The BSSS is a multidimensional scale of social support and consists of the following subscales: perceived emotional social support, perceived instrumental social support, need for social support, seeking social support, actually received support and the buffering scale. In this study five subscales of BSSS were used: perceived emotional social support, perceived instrumental social support, need for social support, seeking social support and actually received support was used. Received social support is a subscale that measures the level of emotional and instrumental social support received from social networks. It consists of fourteen items such as; this person showed me that she/he loves me and accepts me or this person was there when I needed him/her. However, the singular pronoun was changed to plural pronoun to refer to social networks such as spouse, friends and so on. Perceived availability of social support is a subscale that measures the level of perceived availability of emotional and instrumental social support from social networks, consisting of eight items. Schulz and Schwarzer (2003) reported the reliability of this scale as (Cronbach's alpha) $\alpha = .85$. The need for social support subscale consists of four items and it measures an aspect of social support as a construct specific to a person and not for the situational context. Schulz and Schwarzer (2003) reported the reliability of this scale as (Cronbach's alpha) $\alpha = .63$. In this study, this scale has a reliability coefficient of .88.

Personality Traits: This section measures personality traits. It consists of six items adapted from Big Five Personality Inventory developed by Saucier & Goldberg (2001). Big Five personality

inventory is a 5 – point, Likert-type scale ranging from disagree strongly (1) to agree strongly (5). This scale measures five personality traits which are OCEAN Openness to Experience (O), Conscientiousness (C), Extroversion (E), Agreeableness (A), and Neuroticism (N). However, only three traits were measured in this study: Conscientiousness was measured using items 3 and 8, Neuroticisms was be measured with items 4, and 9; and Openness to Experience were measured by items 5, and 10. The cronbach alpha coefficients for the five sub-scales in this study are: extroversion .92; aggreableness .89; Conscientiousness .95; Neuroticism .94; openness to experience .93

Psychological well-being: This was measured using the general health questionnaire (GHQ-28) developed by Goldberg David, (1972). It focuses on two major areas: inability to carry out normal functions and the appearance of new and distressing phenomena. Items were scored using 1-2-3-4 likert scores for the response categories. The 28-item scale is divided into four sub-scales measuring somatic symptoms, anxiety and insomnia, social dysfunction and severe depression. A higher score on this scale indicates poorer the general health. Numerous studies have investigated reliability and validity of GHQ-28in various clinical populations. Test-retest reliability has been reported to be high (0.78 to 0.9) (Robinson and Price 1982) and inter-rater reliability have both been shown to be excellent (Cronbach's α 0.9-0.5) (Failde and Ramos 2000). In this study the reliability coefficients for the four subscales are: Somatic Symptoms-.73; Anxiety and Insomnia-.79; Social Dysfunctions-.73; Severe Depression-.78. The reliability coefficient for the whole scale is .89.

Data Analysis and Results

A total number of participants used were 258 (See List of Tables: Table I) . Their ages ranged from 15 to 44 with a total mean age of 29.05years (S.D. = 4.94)For education status,1 (0.4%) of the participants had no education, 16 (6.2%) had only primary education, 87 (33.7%) had secondary education, 153 (59.3%) had tertiary education and only one (0.4%) of the participants had education from other source. For maritus status, 17 (6.6%) of the participants were single, 230 (89.1%) were

married, 3 (1.2%) were divorced, 7 (2.7%) were separated and one (0.4%) of the partipants was a widow. For occupation, 15 (5.8%) of the participants were students, 48 (18.6%) were civil servants, 79 (30.6%) were private workers, 76 (29.6%) were traders, 2 (0.8%) were apprentices, 18 (7.0%) were artisans, 11 (4.3%) were unemployed, 5 (1.9%) were House wives, 4 (1.6%) were into other occupation apart from the ones listed. Analysis for occupation of spouse showed that, 14 (5.4%) were students, 61 (23.6%) were civil servants, 75 (29.1%) were private workers, 48 (18.6%) were traders, 1 (0.4%) was an apprentice, 6 (2.3%) were drivers, 19 (7.4%) were artisans, 2 (0.8%) were unemployed, 3 (1.2%) were farmers, 29 (11.4%) were into other occupation apart from the ones listed. Out of the 258 participants, 121 (46.9%) were first time mothers while the remaining 137 (53.1%) have gien birth before the index babies. For number of children, 185 (71.7%) of the participants had between 1-2 children, 65 (25.2%) had between 3-4 children, 8 (3.1%) had between 5-6 children. For monthly allowance, 156 (60.5%) earned below #20 000, 58 (22.5%) earned between 21 000 and 40 000, 22 (8.5%) earned between 41 000 and 60 000, 11 (4.3%) earned between 61 000 and 80 000, 5 (1.9%) earned between 81 000 and 100 000, 6 (2.3%) earned above 100,000.

Hypothesis one stated that, social support and personality traits will have independent and joint influence on psychological wellbeing (Somatic Symptoms, Anxiety and Insomnia, Social Dysfunctions and Severe Depression) of nursing mothers. This hypothesis was tested and analyzed using multiple regression analysis. The results are presented in the Table II to V (See List of Tables).

Table II showed that social support, conscientiousness, Openness and Neuroticism jointly predict Somatic Symptoms of nursing mothers at ($R^2 = .047$, $F(9, 257) = 1.370$, $P < .05$) with 4.7% explanation of the variability of the dependent variable. The remaining 95.3% variance was accounted for by other variables not considered in this study. Social support, conscientiousness, Openness and Neuroticism jointly predicted Anxiety and Insomnia of nursing mothers at ($R^2 = .051$ $F(9, 257) = 1.493$, $P < .05$) with 5.1% explanation of the variability of the

dependent variable. The remaining 94.9% variance was accounted for by other variables not considered in this study (See Table III). Table IV indicated that social support, conscientiousness, Openness and, Neuroticism jointly predicted 3.5% of Social Dysfunctions of nursing mothers ($R^2 = .035$, $F(9, 257) = 1.001$, $P < .05$). The remaining 96.5% variance was accounted for by other variables not considered in this study. The result further shows that Perceived Emotional Support is a significant predictor of Social Dysfunctions at ($\beta = -.203$; $t = -2.084$; $p < .05$). The result in Table V showed that social support, conscientiousness, Openness, Neuroticism, and mode of delivery jointly predict Severe Depression of nursing mothers at ($R^2 = .069$, $F(9, 257) = 2.027$, $P < .05$) with 6.9% explanation of the variability of the dependent variable. The remaining 93.1% variance was accounted for by other variables not considered in this study.

Hypothesis two stated that young mothers will score significantly higher on than on psychological wellbeing (somatic symptoms, anxiety and Insomnia and severe depression) than old nursing mothers. This hypothesis was tested and analyzed using independent t-test analysis. The results are presented in Table VI. The table shows there is a significant difference between the age of mother and somatic symptoms ($t = 2.040$; $df = 256$; $p < .05$; mean score (Young mothers) = 11.238 while mean score (Old mothers) = 10.180). Also, there is a significant difference between the age of mother and severe depression ($t = 2.368$; $df = 256$; $p < .05$; mean score (Young mothers) = 12.034 while mean score (Old mothers) = 10.693). However, there is no significant difference between age of mother and Anxiety and Insomnia ($t = 1.480$; $df = 256$; $p = n.s$; X (Young mothers) = 9.884 while X (Old mothers) = 9.126).

Hypothesis three examined the levels of educational status on the psychological wellbeing (somatic symptoms, anxiety and severe depression)

among the nursing mothers. There was a significant effect of educational status on each of the three psychological wellbeing subscales – somatic symptoms [$F(4,253) = 1.966$], anxiety and insomnia [$F(4,253) = 4.90$] and severe depression [$F(4, 253) = 3.522$] at the $p < .05$ level for the five levels of educational status (no education (1), primary education (2), secondary education (3), tertiary education (4) Others (5)). (See Table VII). Furthermore, Post Hoc comparisons using the protected t-test for unequal measures indicated (See Table VIII) that the participants that had no education significantly had a higher mean than those with tertiary education on anxiety and insomnia and severe depression [$\bar{x}_1 - \bar{x}_2 = -6.26$; $p < .05$] & [$\bar{x}_1 - \bar{x}_2 = -6.3$; $p < .05$] respectively; participants with no education had a higher mean on those on anxiety and insomnia, and severe depression than those with levels of other education [$= -9$; $p < .05$] & [$\bar{x}_1 - \bar{x}_2 = -10$; $p < .05$] respectively; participants with primary school education had a higher mean on somatic symptoms, anxiety and insomnia, and severe depression than those with tertiary education [$\bar{x}_1 - \bar{x}_2 = -1.94$; $p < .05$], [$\bar{x}_1 - \bar{x}_2 = -3.01$; $p < .05$] & [$\bar{x}_1 - \bar{x}_2 = -2.8$; $p < .05$] respectively; primary education and secondary education on severe depression [$\bar{x}_1 - \bar{x}_2 = -1.11$; $p < .05$]; there is a significant difference between participants with primary education and those that had other education on severe depression [$\bar{x}_1 - \bar{x}_2 = -6.5$; $p < .05$]; there is a significant difference between participants with secondary education and tertiary education on somatic symptoms, anxiety and insomnia, and severe depression [$\bar{x}_1 - \bar{x}_2 = -1.19$; $p < .05$], [$\bar{x}_1 - \bar{x}_2 = -1.82$; $p < .05$] 7 [$\bar{x}_1 - \bar{x}_2 = -1.69$; $p < .05$] respectively. The results also indicated that the mean score for participants with other education levels was significantly different from those that had secondary education on severe depression [$\bar{x}_1 - \bar{x}_2 = -5.39$; $p < .05$]

Table 1: Summary of frequency analysis of Socio-demographic variables

	Freq.	Percent. (%)		Freq.	Percent. (%)
Age			Occupation of Spouse		
15-19	6	2.3	Student	14	5.4
20-24	37	14.3	Civil Servant	61	23.6
25-29	104	40.3	Private Worker	75	29.1
30-34	72	27.9	Trader	48	18.6
35-39	33	12.8	Apprentice	1	0.4
40-44	6	2.3	Driver	6	2.3
Total	258	100	Artisan	19	7.4
Educational Status			Farmer	3	1.2
No education	1	.4	Unemployed	2	.8
Primary education	16	6.2	Others	29	11.2
Secondary education	87	33.7	Total	258	100
Tertiary education	153	59.3	First Time Mother		
Other	1	.4	Yes	121	46.9
Total	258	100	No	137	53.1
Marital Status			Total	258	100
Single	17	6.6	No of Children		
Married	230	89.1	1-2	185	71.7
Divorced	3	1.2	3-4	65	25.2
Separated	7	2.7	5-6	8	3.1
Widow	1	0.4	Total	258	100
Total	258	100	Monthly Allowance		
Occupation			below 20,000	156	60.5
Student	15	5.8	21,000-40,000	58	22.5
Civil Servant	48	18.6	41,000-60,000	22	8.5
Private Worker	79	30.6	61,000-80,000	11	4.3
Trader	76	29.5	81,000-100,000	5	1.9
Apprentice	2	0.8	100,000 and above	6	2.3
Artisan	18	7.0	Total	258	100
Unemployed	11	4.3			
Housewife	5	1.9			
Others	4	1.6			
Total	258	100			

Table 2: Summary of the multiple regression showing joint and independent influence of social support and personality traits on Anxiety and Insomnia of nursing mothers.

Variables	R ²	AdjR ²	F	P	β	t	P
Perceived emotional S.					-.135	-1.391	n.s
Perceived Instrumental S.					-.017	-.180	n.s
Need for Support					-.070	-.892	n.s
Support Seeking					.111	1.322	n.s
Actually Received S.	.047	.013	1.370	p<.05	-.062	-.866	n.s
Conscientiousness					-.013	-.189	n.s
Openness					-.052	-.806	n.s
Neuroticism					.090	1.397	n.s

Table 3: Summary of the multiple regressions showing joint and independent influence of Social support and personality traits on Somatic Symptoms of nursing mothers

Variables	R ²	AdjR ²	F	P	β	t	P
Perceived emotional S.					-.116	-1.199	n.s
Perceived Instrumental S.					-.058	-.605	n.s
Need for Support					-.041	-.522	n.s
Support Seeking					.107	1.278	n.s
Actually Received S.	.051	.017	1.493	p<.05	.038	.528	n.s
Conscientiousness					-.073	-1.025	n.s
Openness					-.056	-.878	n.s
Neuroticism					.109	1.694	n.s

Table 4: Summary of the multiple regression showing joint and independent influence of social support and personality traits on Social Dysfunctions of nursing mothers.

Variables	R ²	AdjR ²	F	P	β	t	P
Perceived emotional S.					-.203	-2.084	<.05
Perceived Instrumental S.					-.076	.793	n.s
Need for Support					-.040	-.510	n.s
Support Seeking					-.012	-.138	n.s
Actually Received S.	.035	.000	1.001	p<.05	.099	1.362	n.s
Conscientiousness					-.042	.592	n.s
Openness					.016	.244	n.s
Neuroticism					.092	1.422	n.s

Table 5: Summary of the multiple regression analysis showing joint and independent influence of social support and personality traits on Severe Depression of nursing mothers.

Variables	R ²	AdjR ²	F	P	β	t	P
Perceived emotional S.					-.152	-1.588	n.s
Perceived Instrumental S.					-.081	-.857	n.s
Need for Support					-.048	.624	n.s
Support Seeking					-.030	-.362	n.s
Actually Received S.	.069	.035	2.027	p<.05	-.012	-.166	n.s
Conscientiousness					-.042	-.591	n.s
Openness					-.029	.451	n.s
Neuroticism					.055	.868	n.s

Table 6: Independent t-test summary showing the influence of age on somatic symptoms, Anxiety and Insomnia, and Severe Depression of nursing mothers.

	AGE	N	\bar{x}	S.D	T	Df	P
Somatic Symptoms	Young (15-29)	147	11.238	4.366	2.040	256	<.05
	Old (30-44)	111	10.180	3.796			
Anxiety and Insomnia	Young (15-29)	147	9.884	4.220	1.480	256	n.s
	Old (30-44)	111	9.126	3.795			
Severe Depression	Young (15-29)	147	12.034	4.725	2.368	256	<.05
	Old (30-44)	111	10.693	4.183			

Table 7: One-Way ANOVA summary showing influence of Educational Status on Somatic Symptoms, Anxiety and Insomnia, and Severe Depression of nursing mothers

	Sources	Sum of Squares	df	Mean Square	F	P
Somatic Symptoms	Between Groups	133.443	4	33.961	1.966	<.05
	Within Groups	4292.402	253	16.966		
	Total	4425.845	257			
Anxiety and Insomnia	Between Groups	308.167	4	77.042	4.90	<.05
	Within Groups	3975.461	253	15.713		
	Total	4283.628	257			
Severe Depression	Between Groups	279.554	4	69.888	3.522	<.05
	Within Groups	5020.477	253	19.844		
	Total	5300.031	257			

Table 8: Summary of Post Hoc tests using the Protected LSD t-test for unequal measures indicating the comparisons of mean scores of each of the levels of educational status on psychological wellbeing subscales (somatic symptoms, anxiety and insomnia, and severe depression)

Key: 1 = No education, 2 = primary education, 3 = secondary education, 4 = tertiary education, 5 = others.

		1	2	3	4	5	\bar{x}	S.D	N
Somatic Symptoms	1	-					15.0	-	1
	2	-2.82	-				12.18	5.23	16
	3	-3.57	-0.75	-			11.43	4.60	87
	4	-4.76	-1.94*	-1.19*	-		10.24	3.68	153
	5	-6	-3.18	-2.43	-1.24	-	9.0	-	1
Anxiety and Insomnia		1	2	3	4	5	\bar{x}	S.D	N
	1	-					15.0	-	1
	2	-3.25	-				11.75	5.83	16
	3	-4.14	-1.19	-			10.56	4.42	87
	4	-6.26*	-3.01*	-1.82*	-		8.74	3.41	153
	5	-9*	-5.75	-4.56	-2.74	-	6.0	-	1
Severe Depression		1	2	3	4	5	\bar{x}	S.D	N
	1	-					17.0	-	1
	2	-3.5	-				13.50	5.48	16
	3	-4.61	-1.11*	-			12.39	4.38	87
	4	-6.3*	-2.8*	-1.69*	-		10.70	4.37	153
	5	-10*	-6.5*	-5.39*	-3.7	-	7.0	-	1

*. Mean difference is significant at the 0.05 level (2-tailed)

Discussion

The main objective of this study was to examine social support and personality traits as predictors of psychological wellbeing of post partum (0-3 months) nursing mothers. Our findings established a number of interesting linkages among social support, personality traits and psychological wellbeing. This study is extending our knowledge of the influence of social support on health. The results indicated a significant joint influence of social support and personality traits on each of the psychological wellbeing subscales of the nursing mothers (somatic symptoms, anxiety and insomnia, social dysfunctions and severe depression). Social support, specifically emotional support was a significant predictor of social dysfunctions. These results lend support to Berkman, Glass, Brissette and Seeman (2000) who found that participants with high quality or quantity of social networks have a decreased risk of mortality in comparison to those who have low quantity or quality of social relationships, even after statistically controlling for baseline health status. Uchindo, Cacioppo and Kieclt-Glaser (1996) suggest familial sources of support have stronger associations to health outcomes.

Young nursing mothers are most likely to experience higher levels of somatic symptoms, anxiety and insomnia, and severe depression than older nursing mothers. This implies that young nursing mothers expressed poorer psychological well-being than the older nursing mothers. This may be because Nigeria as a country is experiencing a transition from traditional extended family system characterized by child rearing collectivism to the modern individualistic nuclear family system. Collectivism involves mentoring and training of younger nursing mothers by the older nursing mothers within the extended family system which enhances their psychological well-being. In the modern nuclear family system however, the support, mentoring and training provided by the older women from the extended traditional family system are not available. The inexperienced and untrained younger nursing mothers are therefore saddled with all the duties expected of them as wife, daughter-in-law, daughter, sister and now mother at the same time. These roles may place more demands on the

younger nursing mothers thus resulting in poorer psychological well-being. The younger nursing mothers have characteristic feature of the This may be attributed to greater fear of nursing a child exhibited by young mothers unlike older mothers who would have developed better coping skills to deal with the experience. This result lends supports to Igbal, Gupta and Venkatarao's (2015). They also found that age had significant inverse correlation with depression, anxiety and stress among undergraduate students. Similarly, the results of the study carried by Bhat, Hassan, Shafiq and Sheikh, (2015) indicated that age differences in terms of anxiety shows significant difference. Interesting, some studies found no link between age and general health (Joury, AlAtmi, AlBabtain, Alsharif, AlBabtain and AlRuwaili, 2014; Saudina Udovicic, 2014).

There was significant effect of education on somatic symptoms, anxiety and insomnia, and social dysfunctions for the different levels of education (no education, primary education, secondary education and tertiary education). These results indicated that higher level of education level obtained was, lesser symptoms of somatic disorder, anxiety and insomnia, and social dysfunctions are reported by the nursing mothers. Consequently, this result implies that education plays a crucial role in the psychological wellbeing of nursing mothers. Contrary to our findings, however, Akhtar-Danesh and Ladeen (2007), found that respondents whose education level was less than secondary school have the lowest rate of lifetime depression (9.1%); while the highest rate of lifetime depression (13.4%) is seen among those with "post-secondary" education. So, for both lifetime and 12-month depression the prevalence rate was higher for "other post-secondary education" in their study.

Taken as a whole, these findings yield a number of insights with potential practical implications on the dynamic interplay between social support, personality traits and mode of delivery as well as their joint influence on psychological wellbeing.

Conclusion: This study examined social support and personality traits on psychological wellbeing of nursing mothers. Flowing with the findings of this study, the following conclusions were drawn. A relationship among social support, personality

traits and psychological wellbeing was confirmed. Social support specifically perceived emotional support was found to be a strong predictor of psychological wellbeing of nursing mothers likewise age and level of education. One of the implications of this study is that there is relationship between social support and psychological wellbeing, based on this fact, health workers should create a forum to educating the populace and probably involving pregnant women family members during antenatal counselling with necessary information on how to support or relate with pregnant women after delivery in order to improve their psychological wellbeing. Another implication of this study is that age and educational status are significantly related with psychological wellbeing. Consequently, health workers especially those in the antenatal counseling unit should encourage and inform young pregnant women on how to equip themselves with better coping skills, hereby, prepare their minds for the childbirth and nursing experience which in turn improve their psychological wellbeing. Also, women especially the ones at child bearing age should be informed on the role of education on their wellbeing, as more informed they are, the better their psychological wellbeing.

Recommendations and Suggestions:

In future studies, it would be useful to check the moderating effects of social support on the interactive influence of personality traits and mode of delivery on the psychological wellbeing and the moderating effect of age on the interactive influence of social support and psychological wellbeing. Finally, future research should expand and replicate the results of this study to determine the reliability and generalizability of the results of this study.

References

- Adams, S. S., Eberhard-Gran, M., Sandvik, A., Eskild, A. (2012). Mode of delivery and postpartum emotional distress: a cohort study of 55, 814 women. *BJOG* 119, 298–305.
- Akhtar-Danesh, N. and Landesh J. (2007). Relation between depression and socio-demographic factors. *Int J Ment Health Syst*. 1:4. Doi: 10.1186/1752-4458-1-4
- Alexandrou F, Sakellari E, Kourakos M, Sapountzi-Krepia D. (2018). Health visitors' perceptions on their role to assess and manage postpartum depression cases in the community. *Health Soc Care Community*. doi: 10.1111/hsc.12638
- Amie J. M. H. and Michael M. B. (2015). Mode of birth and early postnatal psychological morbidity. *ANZJOG*. Retrieved from Doi: 10.1111/ajo.12387
- Arif Ali, Deuri S. P., Deuri S. K. Masroor J., Amool R.S, Verma A. N. (2012) Perceived support and life Satisfaction in persons with Somatization Disorder. *Indian Psychiatry Journal*, 19, 115-118.
- Berkman LF, Glass T, Brissette I, Seeman TE. (2000) From social integration to health: Durkheim in the new millennium. *Social Science and Medicine*. 51:843–857
- Bert Uchino. (2009). Understanding the links between social support and physical health: A life-Span perspective with emphasis on the separability of perceived and Received Support University of Utah. *Journal for Association of Psychological Science*, 4(3), 236-255.
- Bhat, N. A., Hassan, R., Shafiq M. and Sheikh, S (2015). Sociodemographic factors: A major predictor of anxiety and depression among pregnant women. *Delhi Psychiatry Journal*, 18(1), 86-94.
- Brown, S. L. Nesse, R.M., Vinokur, A. D., Smith, D. M. (2003). Providing social support may be more beneficial than receiving it: results from a prospective study of mortality. *Psycho Sci*. 14(4), 320-327.
- Carol, D. L. (1991). Possible selves in adulthood and old age: A tale of shifting horizons. *Psychology and aging*, 6 (2), 286.
- Cassel, J. (1976). The contribution of the social environment to host resistance. *American Journal of Epidemiology*, 104, 107-123. In Cohen, S. and Pressman, S. (2004). *Stress – Buffering Hypothesis*. *Encyclopedia of Health & Behavior* 2, pp 780-782. Retrieved from <http://www.psy.cmu.edu/~scohen/stressbufhyp.pdf>
- Christina, D. F. (1997). The Effects of Family Structure and Family Process on the Psychological Well-Being of Children: From the Children's Point of View. Thesis. Virginia Polytechnic Institute and State University
- Christine, L. C., D. S., Marci, L., & Susan, C. M., (1993). Social Support in Pregnancy: Psychosocial Correlates of Birth Outcomes and Post-partum Depression. *Journal of Personality and Social Psychology*, 65(6), 1243-1258.
- Colman, A. M. (2006) *Oxford Dictionary of Psychology Dictionary*, Oxford: Oxford University Press
- Costa, P. T. & McCrae, R. R. (1994). *Revised NEO Personality Inventory manual*. Odessa, FL: Psychological Assessment Resources.

- Creedy, D. K., Shochet I. M., Horfall J. (2000). Childbirth and the development of acute trauma symptoms: incidence and contributing factors. *Birth*, 27(2), 31-39.
- Diener, E. and Diener, M. (1995) Cross-Cultural Correlates of Life Satisfaction and Self-Esteem. *Journal of Personality and Social Psychology*, 68, 653-663. Retrieved from http://www1.eur.nl/fsw/happiness/common/desc_study.php?studyidd=560
- Dudley, M., Roy, K., Kelk, N. and Bernard, D. (2001). Psychological correlates of depression in fathers and mothers in the first postnatal year. *Journal of Reproductive & Infant Psychology* 19(3), 187-202.
- Dunkel S., C. and Brooks, K. (2009). The Nature of Social Support. pp.514-517 in *Encyclopedia of Human Relationships*. Harry T. Reis and Susan Sprecher (Eds.). Thousand Oaks, CA: Sage.
- Eysenck, H. J., & Eysenck, S. B. G. (1991). *Manual of the Eysenck personality scales (EPS adult)*. London: Hodder and Stoughton.
- Garthus-Niegel, S., von Soest, T., Vollrath, M.E. et al. *Arch Womens Ment Health* (2013) 16: 1. <https://doi.org/10.1007/s00737-012-0301-3>
- Global One 2015: Maternal Health in Nigeria: a statistical overview. Retrieved from <http://www.globalone2015.org/wp-content/uploads/2011/11/Maternal-Health-in-Nigeria-Statistical-Overview-pdf/>
- Goldberg David (1978) *Manual of the General Health Questionnaire*. Windsor: NFER-Nelson. In *Appraisal, General Health Questionnaire – 28 (GHQ - 28)*, (2011). *Journal of Physiotherapy*, 57.
- Gottlieb, B. H., and Bergen, A. E. (2009). Social Support Concepts and Measures. *Journal of Psychosomatic Research*. 69, 511-520.
- Guittier, M., Cedraschi, C., Jamei, N., Boulvain, M., and Guillemin, F. (2014). Impact of modof delivery on the birth experience in first-time mothers: a qualitative study. *BMC Pregnancy and Childbirth*, 14, 254. <http://www.biomedcentral.com/1471-2393/14/254>.
- Hergenhahn, B. R. (1980). *An introduction to theories of personality*. USA: Prentice Hall, Inc. Child, D. (1968). The relationships between introversion-extroversion, neuroticism and performance in school examinations. *British Journal of Educational Psychology*, 34, 187-196.
- House, J. S. (1981). *Work stress and social support*. Reading, MA: Addison-Wesley. Retrieved from <http://www.worldcat.org/title/work-stress-and-social-support/oclc/654126161>
- Huppert F. A. (2009) *Psychological Well-being: Evidence Regarding its Causes and Consequences*. *Applied Psychology: health and well-being*, 1(2), 137–164
- Igbal, S., Gupta, S. & Venkatarao, E. (2015). Stress, anxiety & depression among medical undergraduate students & their socio-demographic correlates. *Indian J Med Res*, 141, 354-357.
- Claesson IM, Klein S, Sydsjö G, Josefsson A. (2013). Physical activity and psychological well-being in obese pregnant and postpartum women attending a weight-gain restriction programme. *University Post Print*. <http://dx.doi.org/10.1016/j.midw.2012.11.006>
- Rowlands Ingrid, J. and Redshaw Maggie, (2012). Mode of birth and women's psychological and physical wellbeing in the postnatal period *BMC Pregnancy and Childbirth*, 12(138). <http://www.biomedcentral.com/1471-2393/12/13>
- Joury, A. U., AlAtmi, A. A., AlBabtain, S. A., Alsharif, M. AlBabtain, N. A., Moghil, A. B. & AlRuwaili, M. A. (2014). Prevalence of depression and its association with socio-demographic characteristics among the general population. *IJMAMR* 2, 8-15.
- Lars Bauger. (2011). *Personality, Passion, Self-esteem and Psychological Well-being among Junior Elite Athletes in Norway*. Master thesis in Psychology. University of Tromsø
- Larsen, R. J. & Buss, D. M. (2008). *Personality psychology: Domains of knowledge about human nature*. New York: McGraw-Hill International Edition.
- Lee, D. T., Yip, A. S., Leung, T.Y. and Chung, T. k. (2000). Identifying women at risk of postnatal depression: prospective longitudinal study. *Hong Kong Medical Journal*, 6, 349-354. Retrieved from <http://www.hkml.org>.
- Luszczynska, A., Boehmer, S., Knoll, N. Schulz, U. & Schwarzer, R. (2007). Emotional Support for Men and Women With Cancer: Do Patients Receive What They Provide? *International Journal of Behavioral Medicine*, 14(3), 156-163.
- Mandeep, S., Kaveri, Sharma, N. R. and Yadava, A. (2010). Personality Factors as Correlates of Health among Adults. *Journal of the Indian Academy of Applied Psychology*. 36 (2), 328-333.
- McCrae R. R. and Costa P. T., Jr. (1991). Adding Liebe and Arbeit: The Full Five-Factor Model and Well-Being. *Gerontology Research Center National Institutes of Health*, 17(2), 227-232.
- McCrae, R. R., & Costa, P. T., Jr. (1999). A five-factor theory of personality. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (2nd ed., pp. 139–153). New York: Guilford Press.

- McCrae, R. R., and Costa, P. T (1990). *Personality in adulthood*. New York: Guilford Press.
- Md-Aris, S. M., Mariam, A. D. (2010). The relationship between Social Support and Psychological Problems among Student. *International Journal of Business and Social Science*, 1(3), 110-116.
- Mohamed, S.M., Deviga, M., Mohd, S. A., Aqeel, K., Roslee, A. (2014). Social Support during Pre-Natal and Post-Natal Stage: Influence on maternal depression and mental well-being. *Social and Behavioral Sciences*, 143, 417 – 422.
- Morf, C. C. & Ayduk, O. (2005). *Current directions in personality: Readings from the American psychological Society*. New Jersey: Prentice Hall.
- National health Medical Research Council (2000). *Postnatal depression: A systematic review of published scientific literature to 1999-An information paper*. Canberra: Author. Retrieved from http://www.nhmrc.gov.au/_files/nhmrc/publications.
- Norhayati, I., Normah C., Mahadir A., Shazli E. G., Zaini S., Suzana S., Ahmad R.G., Rosdinom R. (2013) Relationships between social support and depression, and quality of life of the elderly in a rural community in Malaysia. *Asia Pacific Psychiatry* 5, 59-66.
- O'Donovan A., Alcorn K. L., Patrick J. C., Creedy D. K., Dawe S., Devilly G. J. (2014). Predicting posttraumatic stress disorder after childbirth. *Midwifery* 30(8), Pages 935-941.
- O'Hara, M. W. and Swain, A. M. (1996). Rates and risk of postpartum depression - a meta-analysis. *International Review of Psychiatry* 8(1), 37-54, DOI: <http://dx.doi.org/10.3109/09540269609037816>
- Opong K. A. (2012). Social support and the psychological wellbeing of people living with HIV/AIDS in Ghana. *African Journal of Psychiatry*, 15, 340-345.
- Patricia L. W. (2005). First-time mothers: social support and confidence in infant care. *50(5)*, 479 – 488.
- Reid, K.M. & Taylor, M.G. (2014). *Social Support, Stress, and Maternal Postpartum Depression: A Comparison of Supportive Relationship*. Florida State University, Department of Sociology.
- Ren J, Jiang X, Yao J, Li X, Liu X, Pang M, et al. (2015). Depression, Social Support, and Coping Styles among Pregnant Women after the Lushan Earthquake in Ya'an, China. *PLoS ONE* 10(8): e0135809.
- Robinson, R.G. and Price, T. R. (1982). Post-Stroke Depressive Disorder: A Follow-up study of 103 patients. *Journal of American Heart Association*. 13(5).
- Saucier, G., & Goldberg, L. R. (2003). The Structure of Personality Attributes. In M. R. Barrick & A. M. Ryan (Eds.), *Personality and work: Reconsidering the role of personality in organizations*. San Francisco: Jossey-Bass. (1-30), Retrieved from http://projects.ori.org/Irg/PDFs_papers/Saucier.Goldberg.Attributes.Personality-Work.2003.pdf/
- Saudina Udovičić. (2014). Big Five Personality Traits and Social Support as Predictors of Postpartum Depression. *Journal of European Psychology Student*, DOI: <http://doi.org/10.5334/jeps.ck>
- Saurel-Cubizolles MJ, Romito P, Lelong N, Ancel P.Y. (2000) Women's health after childbirth: a longitudinal study in France and Italy. *British Journal of Obstetrics and Gynaecology* 107(10):1202–1209.
- Schulz, U. & Schwarzer, R. (2003). Soziale Unterstützung bei der Krankheitsnebeaktivierung. *Dei Berlier Social Support Skalen [Social support in coping with illness. Berlin social support scales]. Diagnostica* 49, 73-82.
- Schwarzer, R. And Schulz, U. (2000). *Berlin Social Support Scales (BSSS)*, Retrieved from http://userpage.fu-berlin/soc_e.hm.
- Shlomi Polachek I, Huller Harari L, Baum M, Strous RD (2014). Postpartum anxiety in a cohort of women from the general population: risk factors and association with depression during last week of pregnancy, postpartum depression and postpartum (PTSD). *Isr J Psychiatry Relat Sci.*;51(2):128-34.
- Soderquist, J., Wijma K., Wijma, B. (2002). Traumatic stress after childbirth: the role of obstetric variables. *J Psychosom Obstet Gynaecol*, 23(1), 31-39.
- Soulsby, L.K., & Bennett, K. M. (2015). *Marriage and Psychological Wellbeing: The Role of Social Support*. *Psychology*, 6, 1349-1359.
- Taylor, S. E. (2011). "Social Support: A Review". In M. S. Freidman. *The Handbook of Health psychology*. New York, NY: Oxford University Press. pp. 189-214.
- Taylor, S. E. (2011). "Social support: A Review". In M. S. Freidman. *The Handbook of Health Psychology*. New York, NY: Oxford University Press. pp. 189-214. Retrieved from www.questia.com/libraby/109045485/handbook-of-health-psychology
- Thoits, P. A. (2011). Mechanisms Linking Social Ties and Support to Physical and Mental Health. *Journal of health and Social Behavior*. 44(4), 488-505.
- Uchino, Cacioppo and Kiecolt-Glaser (1996). The relationship between social support and physiological processes: A review with emphasis on underlying mechanisms and implications for health. *Psychological Bulletin* 119: 488–531. [PubMed]
- Uchino, B. (2004). *Social Support and Physical Health: Understanding the Health Consequences of*

- Relationships. New Haven, CT: Yale University Press.16-17.
- Wills, T. A. (1985). "Supportive functions of interpersonal relationships". In S. Cohen & L. Syme. Social support and health. Orlando, FL: Academic Press, 61-82.
- World Health Organization (2015).Maternal Health. Retrieved from http://www.who.int/topics/maternal_health/en/
- World Health Organization 2003-Shaping the future. Retrieved from <http://www.who.int/whr/2003/en/>
- Zaers S, Waschke M, Ehlert U. (2008) Depressive symptoms and symptoms of post-traumatic stress disorder in women after childbirth. J. Psychosom Obstet Gynaecol. 29(1):61-71.