

African Research Review

AN INTERNATIONAL MULTI-DISCIPLINARY JOURNAL,
ETHIOPIA

AFRREV VOL. 11 (1), SERIAL NO. 45, JANUARY, 2017:75-87

ISSN 1994-9057 (Print)

ISSN 2070-0083 (Online)

DOI : <http://dx.doi.org/10.4314/afrrrev.v11i1.6>

Food Insecurity and Depression among Single Mothers in Kolokuma/Opokuma Local Government Area of Bayelsa State, Nigeria

Uzobo, Endurance

Department of Sociology
Niger Delta University, Wilberforce Island
Bayelsa State, Nigeria
E-mail: enduzobo@yahoo.com
Phone: +2348065052298

Dudafa, J. Undutimi

Department of Sociology
Niger Delta University, Wilberforce Island
Bayelsa State, Nigeria

Boroh, Stanley Ebitare

Department of Sociology and Anthropology
Federal University, Otuoke
Bayelsa State, Nigeria
Stanleyboroh@yahoo.com

Abstract

This study is centered on household food insecurity and depression among single mothers in Kolokuma/Opokuma LGA of Bayelsa State. This study made use of the theories of both Maslow's Hierarchy of Needs and Family Stress Model as its theoretical framework. The study adopted a survey and co-relational study design. In doing this, a sample size of 246 single mothers was selected using the snowball sampling technique. The questionnaire was the main source of primary data collection. The descriptive statistics of percentages, frequency, mean and standard deviation were the basic analytical tool used for the analysis of socio-demographic characteristics of the respondents, while the inferential statistics of binary regression logistics and spearman correlation coefficient served as the tool for determining the relationship between variables. The findings of this study revealed that single mothers were disproportionately affected by food insecurity situations such as insufficient food, poor nutritional abilities, skipping meals, etc. Also, socio-demographic characteristics of single mothers have a relationship with food insecurity status of single mothers, and finally, food insecurity status of mothers play a role in single mothers' depression. As such, food insecurity does not only have psychological effect on mothers but also on their health status and the wellbeing of their children. Based on the findings of the study, it was recommended that there should be concerted efforts by the government, non-governmental organizations (NGOs) to empower single mothers so as to reduce the economic burden characterized by food insecurity on them.

Key words: Food insecurity, Single Mothers, Depression, Family Stress theory, Maternal health

Introduction

Food is the basic requirement for the survival of man. Hence for man to continue to have hope of surviving, he must be sure of adequate meal daily. Food Security refers to the ability of people to access sufficient food at all times, in order to have an active and healthy life. Having sufficient food alone is not enough to ensure a healthy life; the food must also be nutritious. Thus, individuals must have the ability and confidence to acquire foods in a way that is acceptable to the community (Moloud, Dorosty, Mohammadreza, E, Reza Rostami, & Ferey down Siassi, 2014). According to Otaha (2013), food is the basic essential component of social and economic justice. In essence the first priority of a nation should be to feed her population even if the nation lacks scientific capabilities.

Nigeria, no doubt, is richly blessed and endowed with abundant natural and human resources, which if properly harnessed can sufficiently feed the entire nation with surpluses left to export, yet her experience of persistent food crisis (both in quality and

in quantity) is at a high and unbearable rate. This explains the high level of malnutrition and under-nutrition cases especially at the rural areas of the country. This has also put pressure on households, most especially on single mothers that are mainly responsible for providing for their households.

Several studies have explored the relationship between food insecurity and depression among women. The study of Bronte-Tinkew, Zaslow, Capps, Hozorowitz, and McNamara, (2007) revealed that depression, anxiety and worry are linked to food insecurity and strained economic relations. Whitaker, Phillips and Orzol (2006) study also showed that adults in food insecure households are significantly more likely to experience symptoms of depression and anxiety than adults in food secure households. In two studies, it was found that experiencing food insufficiency is associated with poor psychological health issues among children and has been linked with depression and suicidal tendency in adolescents (Alaimo, Olson & Frongillo, 2002, Vazoris and Tarasuk, 2003). Similarly, Alamo, Olson and Frongillo, (2002) study revealed that adults in food insecure houses are four times more likely to have had thoughts of death and five times more likely to have attempted suicide than those in food secure homes. They further added that mothers in food insecure homes exhibited more symptoms of depression than mothers in food secure homes, which affect infant feeding practice and parent-child bonding time.

Additionally, Nicholas Vozoris and Valerie Tarasuk, from a national population health survey reported that mothers with food insufficiency were four times more likely to suffer from major depression than the food sufficient ones (Vozoris & Tarasuk, 2003). Bronte-Tinkew et al., (2007) confirming this, found that depression was directly linked to the experience of food insecurity.

The effect of a parent's mental health on the child(ren) is variously documented by several other studies. According to Lori Miller Kase, mothers who are depressed often suffer in silence and this can take a heavy toll on their children. More so, mother's mental health poses biological, psychological and environmental risk for children (Sweeny & Geller, 1998). Sweeny and Geller added further that, a child is likely to be depressed staying in a depressed household environment. Again, they stated that not only will the child develop depression for himself before adulthood, but also mother's depression can interfere with their child's social, emotional and cognitive development.

Zaslow and Eldred (1998) in their study have also shown that under the stress of strained household budget and lacking adequate resources to provide desired food for their children, mothers experienced prolonged periods of sadness, depression, pre-occupation and irritability that impaired their relationship with their children as a result. This strained relationship also make these children exhibited symptoms of depression,

anxiety and had issues with peer relationships and behavioural problems that persists even after the maternal stress must have subsided.

The World Health Organization (WHO) discovered that compared to non-depressed mothers, depressed mothers tend to display less emotional support and inconsistently respond to their child's everyday and emotional needs (WHO, 2008). Given that children are highly sensitive to the environment and the quality of care given to them, and these depressions are likely affected by mothers with mental disorder. Further, depression has been found to damage the interaction between parents and children, disrupt family routines and rituals (Klass, 2012).

The psychological effects of food insecurity include anxiety, stress worry, guilt, irritability and shame (Heflin, Siefert & Williams, 2005; Vazoris & Tarasuk, 2003). Hence, it has been found that experiencing any of these effects can cause strain upon mothers and their children. For example, Hamelin, Beaudry and Habicht (2002) found that lack of control over family's food situation led to feelings of powerlessness, guilt and shame among adult care givers. Mothers felt they could not adequately provide for their children and the children in turn felt alienated and frustrated by their mother's inability to control their food situation.

Bronte-Tinkew et al. (2007) also found food insecurity to be negatively connected with positive parenting practice, which includes infant cues, response to distress and cognitive growth fostering behaviour. Therefore, food insecurity and depression is a hardship associated with less efficient parenting and also depression manifest itself negatively in family relationship.

One major issue associated with food insecurity is depression. Depression has been found to be the most common mood disorder that all people may experience either in short term or long term basis (Moloud, et al., 2014). Some symptoms of depression include: changes in appetite, weight, sleep, lack of energy, feeling of guilt and lack of pleasure. Depression is ranked fourth in disease across the world, and is considered the most common cause of disability (Moloud, et al., 2014). World Health Organization (WHO) report 2000: predicted that in 2020, this disorder will be ranked second in the world in terms of disease burden. WHO, also reported that more than 121 million people around the world are suffering from depression.

Depression has been found to be more common in women than in men, and more especially among rural single mothers. Giving the fact that women consist of more than half the population, depression among women leads to increased family problems and conflicts and in turn this poses high cost on society (Moloud, et al., 2014). Not only does food insecurity have implications on the mother's psychological wellbeing, it as well affects their children's health, wellbeing and development. Most mothers

compromise their meal for their children. Compromising meal intake for their children to have enough to eat still does not protect children from the pervasive effects of food insecurity (Moloud, 2014).

Theoretical Framework

This study adopted two theories to explain food insecurity and depression among single mothers namely: the Family Stress Theory and Maslow's Hierarchy of Needs Theory.

1. Family Stress Theory

Family Stress model/theory proposes that economic hardship is associated with economic pressure and that both are positively related to parent emotional and behavioural problems (depression). These parental problems are related to harsh and inconsistent parenting and parental conflicts, and this affects the child's emotional and other behavioural problems (Conger & Conger, 2002). Thus, economic hardship increases the risk of negative family functioning and compromised child development and wellbeing, (Conger & Elder, 1994).

This model is very useful because household food insecurity is a type of economic hardship. The theory presumes that poverty produces high economic stress on some families (with reference to single mother headed families) as parents struggle to provide adequate food and resources for themselves and their children. This economic pressure harms parental mental health and increases emotional problems for parents especially depression (Wu & Schimmele, 2006).

Family stress model helps to explain the mechanisms linking poverty to food insecurity thus, economic stress of poverty increases the rate of maternal depression and poverty also affects the resource strategies parents use to acquire and manage limited food resources.

2. Maslow's Hierarchy of Need

Maslow's hierarchy of needs provides a framework for analyzing the issue of food insecurity and depression among single mothers. Maslow's hierarchy of need originally contained five stages of the human needs in order of importance. These stages include:

Physiological Needs: These are needs necessary to maintain life: oxygen, food and water. These basic needs are required by all human and animal species.

Safety Needs: This includes health, freedom from war and financial security. When an individual's physiological needs are met, the focus typically shifts to safety needs.

Community and Belonging: If safety and physiological needs are met, a person will focus on the need for a community and love. These needs are typically met by friends, family and romantic partners.

Esteem Need: Self-confidence and acceptance from others are important components of this need. Esteem is necessary for self-actualization.

Self-Actualization: This need arises from one's desire and ability to utilize his/her potentials and skills (Huit 2007).

Maslow postulated that failure to have needs met at various stages of the hierarchy could lead to illness. He further argued that individuals whose physiological needs are not met may die, become extremely ill, and experience depression and anxiety.

In the light of Maslow's theory of hierarchy of need, food insecurity and depression among single mothers is seen as a result of individual mothers, and household's inability to meet their physiological needs as highlighted in Maslow's hierarchy of needs model. Food security still remains a physiological need as well as a challenge that could lead to depression and other health related illness if not met. This is because, apart from the fact that Maslow's model presents hierarchical highlights of human needs in order of importance, it also implies that failure to meet these needs, especially the Physiological need which is associated with the provision of food, would aggravate frustration and crisis in any given society. As such, we can deduce that hunger, malnutrition, are products of Food Insecurity, which on the other hand is associated with depression.

Methodology

For the purpose of this study, the survey and co-relational study designs were utilized. Whereas the survey designed was used to get a cross section of the respondents, the co-relational study design was used to test the hypotheses in the study. The population of the study consisted of single mothers of the various communities in Kolokuma/Opokuma Local Government Area of Bayelsa State whose exact number cannot be ascertain, given the nature of the population under study. The Cochran's sample size determination formula was used to select a sample size of 246 respondents.

The sampling technique adopted for this study includes both probability and non-probability sampling techniques. Firstly, the simple random sampling was used to select communities within the LGA namely; Sampou, Kalama and Odi. Secondly, the purposive/judgmental sampling techniques was used by the researcher to select the respondents that possess the required characteristics and information that the researcher is seeking for, in this case, single mothers.

The study made use of both primary and secondary sources of data collection. The primary source of data collection consisted a structured questionnaire designed to collect data on household food situation, depression situation and coping strategies of single mothers. It was administered to possible respondents with the help of some research assistants. Secondary data were collected from journals, magazines, newspapers, online resources and statistical publications.

The data gathered from the respondents in the field were coded using prepared coding manual and analyzed using both descriptive and inferential statistics through the use of Statistics Package for Social Science (SPSS) version 21.0. The descriptive statistics which mainly consist of percentages, frequency, mean and standard deviation, were used to analyze the demographic characteristics of the respondents and also, the Likert format questions, while the inferential statistics of binary regression logistics and spearman correlation coefficient were used to test the hypotheses for significant relationship.

Results and Findings

Socio-Demographic Characteristics of the Respondents

The analysis of data from the socio-demographic characteristics of the respondents shows the age brackets and percentage of the respondents as follows:

Age Bracket	%
15-29 years	30.5%
30-39	28.5%
40-49	23.2%
50 years and above	17.9%

With regards to the marital status of the respondents, 80.9% have never been married, 8.4% of them are widowed, while 10.7% of the respondents were divorced/separated.

Educationally, 8.5% of the respondents had no formal education, 21.5% of them have had primary education, the highest number of respondents 55.7% had secondary education, while only 14.2% of them had tertiary education.

From the analysis of respondents' occupational status, farming/fishing had majority of the respondents with a percentage of 45.1; this is followed by 22.4% respondents who are into business/trading; 11% of respondents are civil servants, 4.1% work in the private sectors, 5.3% of the respondents are retirees while 12.2% of the respondents were unemployed.

Furthermore, respondents who had a family size of between 1-3, constituted about 50.4%, those with a household size of between 4-6 were 42.3%, while respondents with the household size of 7 and above were 7.3%.

Food Insecurity Experiences by Single Mothers

The table below shows the food insecurity level as experienced by single mothers in the study area. The table vividly shows that almost all the items which measures food security were rejected by the respondents as they fail to earn a mean score of 2.50 and above. The only item with a mean score of 2.50 and above shows that despite the food insufficiency situations respondents' witness, majority of them indicated that they have never resorted to socially unacceptable form in acquiring food due to food scarcity.

Table 1: Food Security measurements

Items	Mean	Std. Deviation	Research Decision
Could afford provision of Balance diet	1.7805	.41476	Reject
Certain of sufficient food to eat in the next 12 months	1.2602	.43962	Reject
Have never skipped meal due to insufficient food	1.3333	.47237	Reject
Household members have never gone to bed without food	1.5163	.50075	Reject
Have never relied on low cost food due to lack of fund in the past 6 months	1.2480	.43271	Reject
Have borrow money to buy food in the past 6 months	1.3862	.48787	Reject
Have never bought food on credit	1.4065	.49218	Reject
Have never cut the size of meal of household members due to insufficient food in the past 6 months	1.2154	.41197	Reject
Children have never been hungry due to enough food in the last 6 months	1.3943	.48970	Reject
Have never resorted to acquiring food in a socially unacceptable means due to Lack of food	2.5927	1.65932	Accept
Valid N (listwise)	246		

Depression as a Result of Food Insecurity by Single Mothers

The table presented below indicates that a significant number of the respondents have all experienced one form of depression or the other due to food insecurity as all the questions asked had a mean score of 2.50 and above. The only item that received a mean score below 2.50 is the suicidal tendency of respondents as a result depression occasioned by food insecurity.

Table 2: Depression Measures

Items	Mean	Std. Deviation	Research Decision
Worry due to lack or insufficient food	3.2520	1.8033	Accept
Feel depressed when there is food scarcity at home	3.1626	1.7784	Accept
Feel hopeless and fearful about getting food the next day	2.5089	1.5840	Accept
Feel helpless most times in trying to get food	2.7577	1.6606	Accept
Experience sadness when you cannot get enough food	3.1846	1.7845	Accept
Have had health challenges resulting from depression	2.6016	1.6129	Accept
When depressed had thought of committing suicide	1.4228	1.1928	Reject
Valid N (listwise)	246		

Hypotheses Testing

Hypothesis 1 (H₀₁): There is no significant relationship between socio-demographic characteristics of respondents and experiencing food insecurity

From the logistic regression in the table below, it is revealed that three variables; (Educational Status .034, Occupational Status, .048 and Household Size, .047) were found to be of relevant explanatory power. The logistic equation indicates that an additional point on the three variables found to be significant reduces the odd of food insecurity by 0.79, 0.83 and 0.83. Also, it can be predicted that single mothers who scored higher than 21.4%, 29.7% and 26.4% from the regression standard error are more likely to have a better chance of food security than those with lesser scores.

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	287.663 ^a	.017	.025

a. Estimation terminated at iteration number 4 because parameter estimates changed by less than .001.

Variables in the Equation

	B	S.E.	Wald	df	Sig.	Exp(B)	
Step 1 ^a	Age	-.028	.187	.023	1	.880	.972
	Mstatus	-.044	.138	.103	1	.749	.957
	EducationalS	-.117	.214	.300	1	.034	.789
	OccupationS	-.184	.297	3.580	1	.048	.832
	HousehSize	.001	.264	.000	1	.047	.821
	Constant	2.035	.958	4.512	1	.034	7.649

- a. Variable(s) entered on step 1: Age, Mstatus, EducationalS, OccupationS, HousehSize.

Hypothesis 2 (H₀₂): Depression experienced by Single Mothers is Independent of Food Insecurity

In analyzing the association between food insecurity and single mothers' depression, the spearman correlation coefficients indicate a strong positive relationship between the two variables ($p=0.540$). Based on this result, we can with a $p>0.05$ reject the null hypothesis that both variables are independent of each other. Thus, we can say that with a confidence of 95% that the observed relationship the two variables is not caused by random effects, and that both variables are related. The table below presents this result.

Correlations between food insecurity and depression

		Food Insecurity	Depression
Spearman's rho	Food Insecurity	1.000	.540
	Correlation Coefficient	.	.395
	Sig. (2-tailed)	246	246
	N	.540	1.000
	Depression	.395	.
	Sig. (2-tailed)	246	246

Conclusion and Recommendations

Based on the findings of this study, the following conclusions were reached: First, the cases of food insecurity among singles mothers were very prevalent. This is characterized by the fact that most of them cannot even afford to take balance diet, they compromise their meal for the sake of their children. Also, very troubling, is the fact that from the findings of the study it could be concluded that single mothers deliberately skip meal, depended on low cost food, as well as buying food on credit as a way of coping with food insecurity. This Scenario is very dangerous for maternal health and the security of the family and community.

In addition, from our study it can be concluded that socio-demographic characteristics of respondents is associated with the level of food insecurity that single mothers experience. For instance in the study, it was found out that occupational status, educational status and household size has a positive relationship with food insecurity status of single mothers.

Furthermore, it could be concluded from the study that women from the study area show signs and symptoms of depression, which might be linked to the food insecurity situations that they face. This to a large extent is because of their children who they feel sad for, not been able to provide for them.

Finally, from the study, it could be concluded that food insecurity also have implication on the mental health of mothers. As it was discovered that some mothers have experienced health challenges resulting from worry over food for them and their household, the nature of health problem though was not exactly ascertain by this study.

Based on the findings from this study, the following recommendations have been put forward: Firstly, there is the need for poverty alleviation programmes which are mainly abundant in the urban areas to be extended to rural parts of the country. Given the fact that poverty rate is highest among women, they tend to benefit more from such kinds of programmes.

Furthermore, it would b nice for a country like ours to have a proper social support system to ensure that citizens have the economic means to meet all of their basic needs, including access to affordable, nutritious and culturally acceptable food. Without an appropriate support for the vulnerable in society, the health and wellbeing of many will continue to suffer, especially members of households headed by single mothers.

Again, as noted by this study, the problem of food insecurity is ultimately an issue of availability and access. Therefore, government needs to develop food security policies that would increase the probability of access to food for vulnerable rural households especially among single mothers. Programmes like Operation Feed the Nation (OFN),

School to Farm etc, could be reintroduced to increase food availability and accessibility.

Still, empowerment programmes should be introduced by NGOs for rural single mothers with basic skills. This will help them to have the requirement for effective employment in the modern sector of the economy, thereby increasing their potentials.

Finally, Government should implement suitable agricultural policies for adequate food production. Policies that will make extension services accessible to rural farmers will go a long way in addressing their resources acquisition constraints and eventually improving household food security in the country.

References

- Alaimo, K., Olson, M.C., & Frongillo, E.A (2002). Family food insufficiency, but not low family income is positively associated with dysthymia and suicide symptoms in adolescents. *Journal of Nutrition* 312, pp. 719-725.
- Bronte-Tinkew, J., Zaslow, M., Capps, R., Hozorowitz, A., & McNamara, M. (2007). Food insecurity works through depression, parenting and infant feeding to influence overweight and health in toddlers. *Journal of Nutrition* 137, pp. 2160-2165.
- Conger, R. D. & Conger, K. J. (2002). Resilience in Midwestern families: Selected findings from the first decade of a prospective, longitudinal study. *Journal of Marriage and Family*, 64,361-373.
- Conger, R.D., & Elder, G. H. (1994). *Families in troubled times: Adapting to change in rural America*. New York: Aldine.
- Hamelin, A M., Beaudry, M., & Habicht, J. (2002). Characterization of household food insecurity in Quebec: Food and feelings. *Social Science and Medicine* 54: 119-132.
- Heflin, C. M., Siefert, K., & Williams, D. R (2005). Food Insufficiency and Women's Mental Health: Findings From a 3-year panel of Welfare Recipients. *Social Science and Medicine*, 61:1971-1982.
- Huitt, W. (2007). *Success in the conceptual age: Another paradigm shift*. Paper delivered at the 32nd Annual Meeting of the Georgia Educational Research Association, Savannah, GA, October 26. Retrieved December 2016, from http://chiron.valdosta.edu/whuitt/papers/conceptual_age_s.doc

- Klass, P. (2012). *Parents' Depression Linked to Problems in Children*. Retrieved from: <http://well.blogs.nytimes.com/2012/05/07/parents-depression-linked-to-problems-in-children/>
- Moloud, P. A., Dorasty, M., Muhammadreza, E., Reza, R. & Feraydoun S. (2014). The association of family food security and mothers having primary school children in Ran –Iran. *Journal of Diabetes and Metabolic Disorder*, 13 (65).
- Otaha, I. J. (2013). Food insecurity in Nigeria: Way forward. *An International Multidisciplinary Journal*, vol. 7(4).
- Sweeney, N. J., & Geller, J. L. (1998). Mothers with Mental illness. *Psychiatric Services*; 49:643–649.
- Vazoris, N., & Tarasuk, V. (2003). Household food insufficiency is associated with poorer health. *Journal of Nutrition*133:120-126.
- Whitaker, R.C., Phillips, S. M. & Orzol, S. M. (2006). Food insecurity and the risks of depression and anxiety in mothers and behaviour problems in their preschool-aged children. *Pediatrics*, 118: pp. 859-868
- World Health Organization. (2008). *WHO technical consultation on postnatal and postpartum care*. Retrieved from http://whqlibdoc.who.int/hq/2016/WHO_MPS_10.03_eng.pdf
- Wu, Z., & Schimmele, C. (2006). Food insufficiency and depression. *Sociological Perspectives*, 48, 481–504.
- Zaslow, M., & Eldred, C. A. (Eds.) (1998). *Parenting behavior in a sample of young mothers in poverty: Results of the New Chance Observational Study*. New York: MDRC.