

**SOCIO-CULTURAL FACTORS INFLUENCING CHILD NUTRITION  
AMONG MOTHERS IN CALABAR MUNICIPALITY, CROSS RIVER STATE  
NIGERIA**

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**ABSTRACT:** *Purpose: This study was carried out to assess the socio-cultural factors influencing child nutrition among mothers in Calabar Municipality, Cross: River State Nigeria. In order to successfully carry out the study, objectives and corresponding hypothesis'were<sup>1</sup> formulated to guide the study. Literature was reviewed based on the research variables, Methods: A cross-sectional descriptive survey design was used for the study in Calabar Municipality, Cross River State. A simple random sampling technique was used to select 5 communities from the L.G.A. for the study and snowball non-probability sampling techniques was used to select the subjects for the study. The target population was unknown; a sample size of 376 was determined using Golden formula for infinite population. Their responses were analyzed using frequencies, percentage and Chi-square analysis and the following results were obtained. Result: The study reveal that majority of the respondents believed that feeding children with egg, meat and fish makes them thieves with mean value response of 3.48 and 3.53 respectively while majority also disagreed with stopping breastfeeding in the advent of a new pregnancy with mean value score of 2.03. majority also disagreed that their cultural practices had influence on the nutritional status of their children with a mean response value of 1.82 but the grand mean score of 2.77 and SD score of 0.64 which is greater than the criterion mean of 2.5 confirms that religious and cultural practices has an influence on the nutritional status of children. Conclusion: Socio-economic status of the family like the occupation of breadwinner, the person who controls the finance, and poor living conditions (inadequate water supply, inadequate sanitations), with a grand mean score of 2.91 has a negative influence on the nutritional status of children.*

**KEYWORDS:** socio-cultural, factors influencing, child nutrition, mothers.

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## **INTRODUCTION**

Child nutrition plays a key role in infant and child health or death. Young children, pregnant women and lactating mothers are nutritionally the most vulnerable group, especially in the developing countries of the world, and yet relatively little is done to

achieve their special nutritional needs. (Oyira, Abua, Mgbekem & Okon, 2010). The importance of nutrition in childhood for both immediate health and health in later life is a topic that has aroused a considerable interest and argument over the past 15 – 20 years. The depth of interest and the data that arouse the interest are new but the concept that the way a child is fed has a long-term effect or consequences on the child. In developed countries and many traditional societies today, early feeding has been considered a determinant of later character as much as later growth and health. Such considerations were not always well substantiated although widely accepted. Thus, feeding on eggs made children thieves and wet nurses (Mothers) transmitted their personalities to the children. (WHO, 2008) Current beliefs on the relation of childhood diet to later health and development may seem more specific but are at present equally unsubstantiated by hard clinical evidence.

Observation has shown that long term complications of childhood nutrition that can be substantiated are well understood. For example, Rickets may be responsible for long term bone problems, particularly pelvic deformity. Energy deficiency may lead to poor physical abilities in adult life. One dietary question that is of most concern to both the epidemiologists, nutritionists and primary health care specialists today is whether diet of nutritional inadequacy contain some long term risk?

Virtually all that we know about dietary excess in childhood leading to health problems in adult life is circumstantial evidence derived from population studies and unsubstantiated by individual correlation. Parameters of nutrition in adult life can be correlated with risks for morbidity and mortality. Childhood is implicated by association. Thus, populations adopting Western high-fat, refined carbohydrate, low fiber diets show increased prevalence of obesity, hypertension, coronary heart disease, diabetes mellitus, large bowel/cancer and several other problems (Shetty, 2008).

Controversy continues to rage over the risks a particular dietary habit may present even in adult life. Correlations between certain nutrients intakes and particular disease are possible when comparing emulations, but the calculation of the risks for individuals probably will never be possible. Genetics and non-nutritional environmental factors affecting individuals are risk factors as well (Shetty, 2008). The process of physiological growth in children involves complex interaction of nutritional, genetics and environmental factors. Nutritional requirements obviously vary with age and diet must therefore be adjusted accordingly to achieve optimal health and growth. Adequate nutrition ensures healthier children, who grow into more productive adults while Poor nutrition on the other hand leads to malnutrition. (United Nations Children's Emergency Fund, 2008).

Factors that influence the nutritional status of children are many and varied. These factors include inadequate dietary intake, poor household, food security, diseases like diarrhea, infections e.t.c., inadequate maternal and child care, unhealthy environment, lack of

education and nutritional information to mention but a few (Sullivan & Sheffrin, 2010). All these in turn lead to malnutrition.

There is a relationship between socio-cultural factors, health and nutrition (Noughani, Bagheri & Ramim, 2014). Socio-economic and socio-cultural factors simultaneously influence both the children's nutritional status and their nutrition related roles.

Finally, relatively little has been written on factors influencing child nutrition. Hence, the researchers hopes that this study will stimulate other scholars, to conduct more in-depth studies on this topic.

### **Purpose of the study**

The purpose of the study is to assess the socio-cultural factors influencing child nutrition in Calabar Municipality, Cross River State, Nigeria.

### **Objectives of the study**

The specific objectives of the study are:

- To determine the influence of family structure on the nutritional status of children.
- To determine the influence of the socio-economic status of the family on nutritional status of children.
- To identify the religious and cultural practices that influence the nutritional status of children.

### **Hypotheses**

- There is no significant relationship between family's socio-economic status and nutritional status of their children.

### **Significance of the Study**

- This study is aimed at enlightening parents on the importance of adequate nutrition especially during childhood, which promotes healthy growth of children; and thus a healthy nation. This study may promote the use of locally available food resources to prevent inadequate nutrition, occurring as a result of the superstitions and cultural practices held about nutrition with regards to children.

- The result of this research might assist health workers to find out areas of focus and emphasis when giving health talks to pregnant women and nursing mothers during antenatal and postnatal clinics respectively.

### **Scope of the Study**

The study will be delimited to mothers of young children under 5 years of age at selected rural communities in Calabar Municipality L.G.A. The study will cover the influence of family structure on the nutritional status of children, the influence of the socio-economic status of the family on nutritional status of children, religious and cultural practices that

influence the nutritional status of children and influence of maternal education on nutritional status of the children.

### **Limitations of study**

The researcher encountered certain difficulties in the cause of this research and they include:-

- Some of the responses given by the respondents may have been estimations or even exaggerations. This has also been reported in similar studies.
- The challenging terrain to access the communities examined.

## **LITERATURE REVIEW**

### **Influence of Family Structure on Malnutrition among Young Children**

Separation of a child from his mother and his father occurs for a variety of reasons, among these are broken homes, but it is usually a cultural practice which eventually leads to the development of kwashiorkor in Uganda which has been ascertained by Mccance and in Nigeria by Morley. Bicknell & wood. Separation of a more temporary kind could be a major social factor in the development of marasmus in Gambia in West Africa. (Guliano2009). The same views hold in Nigeria and Northern, Cross River State in particular.

During the planting and harvesting season, which coincides with the rains and the greatest incidence of infection, mothers are always in the field from dawn to dusk and young children are looked after by 5 – 14years old “nurse maid”. Thus at the time when the child most likely to be ill and most in need of motherly care and attention, both nutritionally and other help is least available. Malnutrition is due to multiple socio-economic problems and is associated with the level of development of a country. Although the simple etiological factor is insufficient food, it is not as straight forward as this, since there are many related problems of supply and demand, level of income, social status and education as well as health care services availability (Obionu, 2007).

Malnutrition can be associated with occupation of the head of the family or the breadwinner. The person who controls the family’s finances influences (intentionally or unintentionally) both the food fed to the children and their nutritional status. In general, when mothers rather than fathers have some control over finances, the family diet is likely to be better. When the mother has little or no control over family funds, dietary arrangements may become haphazard or even dangerous. The result is usually malnutrition (Di Censo, 2010). According to Adebayo (2009) an exponential rise in birth rate especially in the developing countries is well documented and now this exceeds annual increase in world food production. Moreover, food production and distribution are uneven and in general, the countries with greatest population increase are those with the least improved agricultural production. Inevitably, this is producing an increase in shortage of food and a rise in the incidence of malnutrition. In recent years, the overriding role of poverty in the etiology of malnutrition has been receiving increased attention.

Many childhood diseases achieve their worse effect in poverty, socially deprived homes and it would be surprising if protein energy malnutrition were an exception. (Center for Disease Control & Prevention, 2008). It is not necessarily the poorest children who become the most malnourished. Some families do manage by ingenious self-help schemes and economies to stave off malnutrition but in general; it is the case that malnutrition is primarily a problem of poor countries and of the poorest sections of the community within these countries (Levison, 2011). This could be applicable in Edim Otop community of Calabar Municipality L.G.A of Cross River State as they are among the poor communities in the country. Lucas & Gilles (2010) noted that poverty is the main determinant of energy and nutrient malnutrition. Many surveys undertaken in rural areas of developing countries have emphasized that poor families are more likely to have malnourished children. In their study in rural Bangladesh household, wealth was estimated from the size of the dwelling. Children from poor households who do not live in convenient and decent houses were more likely to be severely stunted than those from wealthy households who live in very comfortable and decent houses. Such association between nutritional status and household wealth has led many investigators to examine links between poverty, the domestic environment, child illness and food intake in more detail (Ali & Haider, 2005). In many cases where the knowledge about nutrition exists, there is insufficient money to purchase enough quantity of the required food. Wage earners are forced to buy cheap food in order to make ends meet, leading to over reliance on few high yielding staples that are usually cheap to procure. Everywhere, protein energy malnutrition is clearly more common in the less affluent members of the population (Obionu, 2007).

According to the study by Adebami, Oyedeji & Aderinsola, (2009), nutritional status is compromised where people are exposed to high levels of infection due to unsafe and or insufficient water supply and inadequate sanitation. The public health challenges of unsafe water and inadequate sanitation have plagued humanity for centuries and may continue to do so unless government makes water and sanitation infrastructural improvement one of the first priorities. The poor in most of the developing countries like Nigeria either pay more for their access to water or have to travel far distances to obtain water, thus exposing them to water borne diseases like diarrhea which could predispose to malnutrition. (Neiederhauser, 2007).

Mere economic development or even the adequacy of food at household levels is no guarantee for a stable and satisfactory nutritional status. At the same time nutrition has to be tackled independently along with other developmental issues like education of the people. (Mother and Child Nutrition, 2007). Majority of the people are not aware of the concept of balanced diet and significance of health and hygiene. Across the developing world, women play key roles in maintaining household food security and in caring for children on a day-to-day basis, both of which are extremely important factors influencing a child's nutritional status.

Malnutrition in children can be a consequence of unfavorable family structure. Ten (10) children die every minute as a result of malnutrition. More than a quarter of children in developing countries are underweight, stunted, wasted and suffer from certain diseases because of the separation of a child from his mother and or his father. This separation could be as a result of variety of reasons. Among these are broken homes, death or even the presence of a new pregnancy (Tarrant, 2010 and Ojofeitimi, Owolabi, Aderomi, Esimai & Olasami, 2003).

### **Influence of Socio-Economic Status of Family, Maternal Education and Malnutrition among Young Children**

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Since child-birth and breast-feeding can only be carried out by women, they are naturally the primary caregivers at the beginning of a child's life. And women are most often the people who feed and bathe children, seek health care when they are sick, protect them from exposure to danger, and support their cognitive and social development (UNICEF, 2009). Given these key roles, women's knowledge and abilities and their own physical well-being and decision-making power are crucial to children's nutrition.

It is not surprising, that women's education and status relative to men's is strongly associated with child malnutrition in developing countries. Improvements in female secondary school enrolment rates are estimated to be responsible for 43 percent of the total 15.5 percent reduction in the child underweight rate of developing countries during the period 1970–2005. The estimated contribution of improvements in women's status relative to men's is only 12 percent, mainly because there has been little progress in this area during the period in spite of its strong influence (Smith & Haddad, 2007). If a mother knows that consumption of green leafy vegetables prevents anemia, she would certainly include it in her own and her children's diet. Our countryside is rich in green leafy vegetables. Mothers are ignorant about the right age of weaning the child, how to supplement his diet and proper way of cooking foods. It is because of this ignorance that the available resources are improperly used.

Maternal education has a lot of role to play. An educated mother not only could take better care of child nutrition but also help prevent infant morbidity and mortality to a large extent. Indeed self-sufficiency in food production will not address the problem even of hunger or the calorie gap, unless accompanied by adequate knowledge and purchasing power. Experience shows that malnutrition and ill-health are traceable partly to economic causes and partly to educational factors. For, even while living in poverty, the health and nutrition status would be appreciably better, if people know what to do about it. Malnutrition is due to multiple socio-economic problems and is associated with the level of development of a country. Although the simple etiological factor is insufficient food, it is not as straight forward as this, since there are many related problems of supply and demand, level of income, social status and education as well as health care services availability (Obionu, 2007).

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comfortable and decent houses. Such association between nutritional status and household wealth has led many investigators to examine links between poverty, the domestic environment, child illness and food intake in more detail.

### **Relationship between Superstitious/ Religious/ Cultural Beliefs on Breastfeeding and Malnutrition among Young Children**

Cultural beliefs and local tradition are important in determining health behavior in general. Studies of feeding practices in different countries have shown a large variety of beliefs and traditions related to breastfeeding (Hizel, 2009). While some of these can encourage breastfeeding, others may discourage it. Predominant among tribal practices in Africa and elsewhere is the custom of ceasing breastfeeding once a new pregnancy has started. The concept of the “Kabesh” is an example in which breastfeeding relates to other people in society not only the mother’s milk as described in Egypt. The belief that the entrance of a menstruating woman into the room can harm a mother or a baby is referred to as (“Marandi, 2010).

In Anatolia, not allowing another lactating woman to enter the house is believed to protect the mother and baby from evil forces. The perception of the evil eye presents a barrier to women breastfeeding because a mother might deny her child the benefits of her breast milk if she fears that she has been subjected to evil eye (Hizel, 2009). Kuti (2012) studied the breastfeeding practices among the Yorubas and found out that breastfeeding is held in high esteem and practiced at ease. Problem arises when Yoruba mothers have to work outside the home, formula feeding is usually used during these periods while breastfeeding is done only in the evening when they returned. A similar situation has been described among Zulus of South Africa by Newton (2010) and the results in both cases are high incidence of stunted growth; severe malnutrition, diarrhea and vomiting among the babies of working class mothers and those influenced by their parents. According to the study by Sabitu (2008) the prevalence of malnutrition is higher among the children of women having the highest work load and it tends to worsen among the children of women that are heavily engaged in physically stressful agricultural activities. This might be probably due to the inadequacy of breastfeeding pattern observed among such mothers probably resulting from occupational stress. This is likely to be the case in Ediba community, in Calabar Municipality, Local Government Area of Cross River State where the majority of mothers need to struggle, maybe as farmers or petty traders to earn their daily living.

The early 1970s and second succeeding decades witnessed a universal increase in feeding babies with infant formula and decline in duration of breastfeeding, in many developing and developed countries. All these findings informed the launching of Baby Friendly Hospital Initiative (BFHI) by the United Nations Children’s Fund (UNICEF, 1998) and World Health Organization in Ankara, Turkey in 1991 which is the latest advance in decade’s long campaign to counter the world wide trends towards breastfeeding. Despite the intervention by BFH and introduction of Exclusive breastfeeding in 1991, there is still the recognition particularly in African countries (Breastfeeding Newsletter, 2006).



Looking at the percentage of mothers practicing breastfeeding and for that duration of time, malnutrition and its associated infant mortality should have been a history in Nigeria. However, Nigeria and Enugu East in particular are still saddled with the problem of malnutrition among young children, at a time when infants are supposed to be fed alongside with complementary feeds. For instance in Ghana, it was reported that water and glucose solutions are widely given to infants beginning from the first few months of life (Kwame, 2007).

Colostrum is seen as harmful in many cultures and discarding it is a common practice in Ubanese culture. They also have a belief that reflects that breastfeeding is not only about transmission of nutrition from mother to child but also about transmission of physical pain. Given that abdominal cramping postpartum is essentially universal due to uterine involution, a mother can deny her child of breast milk so as not to transmit the pain she is feeling to him/her (Hossaini, 2008).

The health benefits of breastfeeding to both mother and infant have been well established but early introduction of formula remains a common practice in some developing countries where studies have shown that women who receive encouragements to breastfeed from health care providers are more likely to initiate and maintain breastfeeding than women who did not receive any form of encouragement (Harrison, 2008 and Reyes, 2004).

The concern that poor maternal nutrition affects the infant has led to widespread agreement on a policy of feed the nursing mother thereby the baby. While the relationship may not be as direct as this policy implies, there are several arguments for giving priority to women including lactating women in supplementary feeding programmes. First, these women deserve designation as a target group for the sake of their own nutritional status. Second, most lactating women will later become pregnant again and improving their nutritional status may reduce the level of low birth weight. The lactating group may be important to reach in cultures where women avoid eating more during pregnancy out of fear of birth complications caused by large babies (Sosa, 2009 and Perez, 2007).

## **THEORETICAL REVIEW**

### **Leininger's Theory of Culture Care Diversity and Universality**

Leininger (1978) introduced the concept of transcultural nursing and developed the Culture Care Theory to explain cultural competency. It was the first attempt in the nursing profession to highlight the need for culturally competent nurses. Leininger (1978) explained that nurses had to acquire an in-depth knowledge of different cultures in order to provide care to people of various ethnicities. Moreover, it is the only theory that explicitly focused on the relationship between culture and care on health and wellness. She points out that the purpose and goal of her theory is for nurses to understand diverse and universal culturally based care factors.

These factors include: (1) *technological*, (2) *religious and philosophical*, (3) *kinship and social*, (4) *cultural values and life ways*, (5) *political and legal*, (6) *economic*, and (7) *educational*, forming sunrays that influence individuals, families, and groups in health and illness.

They influence the health, and well-being of others. An understanding of these factors enables the nurses to provide care that is individualized and meaningful to individuals of various cultural backgrounds. The major concepts of Leininger (1991) theory include:

□ Illness and wellness are shaped by various factors including perception and coping skills, as well as the social level of the patient. Their perception will influence the definition of such illness and determine whether it should be taken seriously or not e.g. malnutrition in children. This will in turn influence their pathway to health.

□ Cultural competence is an important component of nursing. Having knowledge of the patient's cultural perspectives enables the nurse to provide more effective and appropriate care. For example, understanding one's religious or cultural beliefs may be a deciding factor against giving a child eggs or meat since these individuals are forbidden to receive this as they believe that it will compel the child to steal in future. It is clear that having specific knowledge about patient's cultures ensures holistic and cultural competent nursing care.

□ Culture influences all spheres of human life. It defines health, illness, and the search for relief from disease or distress. The cultural belief that a community may have well shape their own behavior all along and, therefore, it will make it possible for medical treatment to be effected when culture becomes an obstacle. For example, the diet therapy encouraged or prescribed in order to prevent malnutrition in children may be against the cultural beliefs in the community (the culture of the community may be that proteinous foods e.g. meat should be reserved for the elders instead of children who need them for growth and development.

□ Religious and cultural knowledge is an important ingredient in health care. Nurses may encounter patients from numerous cultures in daily practice as it is with mothers of young children living in Ediba, Nyangasang and Edim Otop communities of Calabar Municipality of Cross River State. It is unlikely that nurses would know about the culturally- based, health – related beliefs and practices of all persons. However, nurses can gain knowledge and skills in cross – cultural communication to help them provide individualized care that is based on cultural practices.

□ The health concepts held by many cultural groups may result in people choosing not to seek modern medical treatment procedures. A concise cultural assessment is an effective way to obtain pertinent information about patient's perspectives on important aspects of their care (Man K. T., Uday, N. Y., Hassan, H., Bharat K., G. Paudel, S. K. & Varalakshmi C. S. 2019). It is important for nurses to learn which foods are culturally acceptable and if there are certain foods that are not tolerated. These questions

guide nurses in planning care. Most important, it gives nurses better insight as to which foods are considered healthy and helpful. Learning about patient's family structures is important to understand when performing a culturally assessment. Family is the basic social unit, and it defines how persons of various cultures view health and illness. It also gives nurses insight about the support systems for their patients.

These factors play a significant role in restoring and maintaining the health of patients. Nurses should develop their plan of care with their patients in order to derive mutual goals that are compatible with their cultural norms. Patients will develop trust with their nurses and be comfortable with the nursing care plan because it is consistent with their cultural values and practices. They will likely adhere to the plan of care because they feel respected for their different cultural practices, promoting a positive outcome.

□ Health care providers need to be flexible in the design of programs, policies, and services to meet the needs and concerns of the culturally diverse population, groups that are likely to be encountered. At times, nurses may assess that their patient's cultural patterns are in conflict with their health needs. It is then necessary for nurses to try to create and implement new health patterns for these patients. This is best achieved when nurses listen with openness and understanding regarding their patients perspectives about their illness. Nurses must then try to educate their patients about using therapeutic means different from their cultures that are helpful for restoring and maintaining health. Culturally competent nurses design care plans that promote patients' compliance and incorporates safe and effective cultural practices.

Leininger's (2006a) negotiation and accommodation modes may be employed by the nurse when nursing interventions would include adaptation and negotiation with individuals and groups in order to promote culturally congruent care to promote health, prevent illness, or to cope with illness or death—for example, teaching the mother of the child that although she needs to breastfeed her baby exclusively, she has to introduce complementary feeds from 7 months upwards and still continue with breastfeeding. The nurse also implements this mode when the baby is allowed to sleep with the grandmother as may be the custom provided his nutrition is not compromised.

When employing Leininger's (2006a) third mode, repatterning and restructuring, the nurse sets mutual decisions with the patient to use change or modification in the plan of care in order to achieve better health outcomes (Sagar, 2012). For example, a mother may be reluctant to practice exclusive breastfeeding because of the belief that not giving child water may harm the baby. The nurse teaches her that a greater part of the breast milk consists of water and will be adequate for the baby and moreover when more water is given it reduces the amount of nutrient the baby gets. These will then enable the nurse to provide more effective and appropriate care.

**Summary of Literature Review**

Nutritional status of children has been extensively studied, particularly in developing countries and several of these studies showed that socio-economic situation of the family, mother's educational level, age, parity, types of family, child's immunization status and age are some of the key determinants of nutritional status of children under five years. Malnutrition in children can be a consequence of unfavorable family structure. Separation of a child from his mother and or his father which can be as a result broken homes, death or even the presence of a new pregnancy can result in loss of appetite and nutritional deprivation leading to malnutrition. Leaving children to the care of the older siblings or house maids while the mother is away exposes children to risk of infection and malnutrition. Socio- economic status of the family has a great influence on malnutrition. Malnutrition can be associated with occupation of the head of the family or the breadwinner. Poverty is a major determinant of energy and nutrient malnutrition; poor families are more likely to have malnourished children. Maternal education has been found also to have a great influence on nutritional status of children. An educated mother not only could take better care of child nutrition but also help prevent infant morbidity and mortality to a large extent. Numerous theories proposed to explain the link between beliefs and behavior, culture and social structure and their influences on nutritional status of children include: Leininger's theory of culture care, diversity and universality. Although, most of the studies were carried out in developing countries and some parts of this country, none was found in the Eastern part of Enugu State. Thus, a gap exists. Therefore, the need to assess the socio-cultural factors influencing children's nutritional status in this part of the country especially in rural communities in Calabar Municipality L.G.A. arises.

**METHOD****Research design**

The cross-sectional descriptive survey research was used. According to Basavanikappa (2010), this design is one which collects data about various variables from the sample at one point of time in order to uncover relationship existing among those variables. This design was successfully used by scholars for similar studies (Walsh, 2010 & Senbanjo *et. al.*, 2009). It is therefore, considered appropriate for this study.

**Research setting**

The study area is Calabar Municipality in Cross River State, Nigeria. This setting is chosen for this study to determine the socio-cultural factors influencing child nutrition in Calabar Municipality, Cross River State, Nigeria. Calabar Municipality is one of the eighteen Local Government Areas of Cross River State that serves as a Metropolis. The area is made up of two indigenous ethnic groups (The Quas and the Efiks) while the language spoken is Ejagham and Efik, Pigeon, with English as the lingual Franca.

The area is bounded in north by Akampkpa local government area, east by Akpabuyo local government area and on the west by Odukpani local government area. The

University of Calabar, the teaching Hospital, General Hospital, Technical College and many other health institution and schools are located within the Municipality. The Municipal council is governed by the chairman called the Mayor Assisted by his councilors representing each council ward. It has typical maritime climate with adequate rainfall all year round, two important rivers are found have the great Kwa River and Calabar River. Major occupation is farming, fishing and trading.

The people are mostly Christians; few are Moslems while minute numbers still practice African traditional religion. The people believe in matrilineage and female fattening. Their cultural heritage is quite rich and is held in high esteem, such culture include their ceremonial outfits like the onyoyo and ntop-kpon for the female and usobo and okpo-kpon with beaded shoes and a white shirt for the males. They have indigenous dance like the Ekpe, Ekombi etc.

Their sources for water supply are pipe borne water by the state water board, private boreholes, streams and rainfall. Electricity supply is provided by power holding Plc while waste disposal is being taken care of by the state government through the Calabar Urban City Development Agency (CUCDA).

### **Research population**

The population of this study is made up 384 mothers of children under five year of age in Calabar Municipality who have their names registered as mothers into the state voters' registration in Calabar municipality 2017-2018.

### **Sample**

A sample size of 384 was statistically determined using Golden formular for infinite (unknown) population (Godden, 2004).

$$SS = \frac{Z^2 \times P (1-P)}{M^2}$$

Where:

SS = Sample size for infinite population (more than 50,000).

Z = Z value (e.g. 1.96 for 95% confidence interval).

P = Population proportion (expressed as decimal) (assumed to be 0.05 (5%) since this would provide the maximum sample size).

M = Margin of Error at 5% (0.05)

### ***Inclusion Criteria***

The respondents

- i) Has to be child's mother or caregiver.
- ii) Has to be a resident in the selected communities.
- iii) Should have an infant below 5 years of age in the family at the time of the study.

**Sampling procedure**

A simple random method was used to select 5 villages out of 6 autonomous villages in the local government.

The exponential non-discriminative snowball sampling (also known as chain referral) technique was used to select the subjects. Snowball sampling is a nonprobability sampling technique that is used by researchers to identify potential subjects in studies where subjects are hard to locate. This method is ideal for this study as the mothers do not have a particular place where they will meet; and each mother will make referrals to two other mothers, thereby ensuring a wider distribution of mothers and children to be covered.

**Reliability of the instrument**

In order to determine the reliability of the instrument a test-retest study was conducted with a group of 20 mothers who are not included in the study. The researchers employed two staff to help in the exercise. The 20 mothers who took part in the study were captured twice during visitation in different wards. During the second data collection exercise the employ staff for the trial test were made to repeat visitation to the areas they covered in the first test to ensure that the mothers' who completed the questionnaire at first were spotted and made to complete the same type of questionnaire the second time.

**Table 1**

**Test-retest reliability estimates of variables on** assess the socio-cultural factors influencing child nutrition in Calabar Municipality, Cross River State, Nigeria.

<b>Independent variables</b>	<b>No. of items</b>	<b>Administration</b>	<b>X</b>	<b>SD</b>	<b>Rx</b>
To determine the influence of family structure on the nutritional status of children.	6	1 <sup>st</sup> 2 <sup>nd</sup>	13.4 12.6	2.63 2.81	0.67
The influence of the socio-economic status of the family on nutritional status of children.	6	1 <sup>st</sup> 2 <sup>nd</sup>	12.93 12.86	2.48 2.65	0.77
The religious and cultural practices that influence the nutritional status of children	8	1 <sup>st</sup> 2 <sup>nd</sup>	12.49 12.52	2.84 2.96	0.65

**Ethical consideration**

Approval was obtained from the Clan Head, Calabar Municipality, and Cross River State, Nigeria. An administrative permission to carry out this study was obtained from the local government and presented to the head of different communities.

All participants were fully informed of the objectives and design of the study. Informed consent was obtained from the respondents before the administration of the questionnaire and taking the measurement. Participation was voluntary. Respondents were given freedom to withdraw from the study at any time.

### Procedure for Data Analysis

Data was analysis using frequency, percentages means and standard deviation were used to analyze and answer the research questions. One sample t-test was used to compare the means with a criterion (cut-off) mean for significance. Means greater than the cut off of 2.50 was regarded as positive response and vice versa. Level of significance was set at  $P < 0.05$ . Results were presented in tables and charts.

## RESULTS

Socio-demographic data

**Table 1: Demographic characteristics of the respondents**  $n = 376$   $f\%$

Variables	Frequency	Percentage
<b><i>Age group</i></b>		
20 - 24	126	33.5
25 - 29	137	36.4
30 – 34	66	17.6
35 - 39	35	9.3
40 & more	12	3.2
<b><i>Occupation</i></b>		
Business	149	39.6
Student	91	24.2
Farmers	22	5.9
Civil servant	50	13.3
Housewife	31	8.2
Health worker	29	7.7
Clergy	2	0.5
Teachers	2	0.5
<b><i>Educational level</i></b>		
No formal education	9	2.4
Primary education	39	10.4
Secondary education	226	60.1
Tertiary education	102	27.1
<b><i>Marital status</i></b>		
Married	315	83.8
Single	55	14.6
Divorced/separated	6	6 1.6
<b><i>Religion</i></b>		
Christianity	201	53.5

Muslim	58	15.4
Traditional worshipper	108	28.7
Others	9	2.4
<b><i>Number of children</i></b>		
1	108	28.7
2	121	32.2
3	45	11.9
4	45	11.9
5	41	10.9
6	10	2.7
7	6	1.7

Mean age  $\pm$  SD = 24.97  $\pm$  10.11

Table 1 above presents the frequency distribution of the demographic characteristics of the study participants. Of the 376 participants, none was below 20yrs of age. The majority were between 24 – 29yrs (34%) followed by 33% who were between 20 – 24yrs, very few 3.2% were above 40yrs.

The occupation of the respondents on the same table showed that majority 39.6% were business women, followed by 24.2% who were students, 13.3% civil servants, 8.2% housewife, 7.7% health workers, 5.9% farmers and the least 0.5% teachers and clergy.

The table also showed that the respondents were predominantly secondary school certificate holders (226, 60.1%) while 27.1% and 10.4% of them had tertiary and primary education respectively, only 2.4% had no formal education. The respondents were all Christians, predominantly married (315, 83.8%), 55(14.6%) single and 6 (1.6%) divorced/separated.

Majority of the respondents 121(32.2%) had 2 children, followed by 108 (28.7) that had one child, 45 (11.9%) had 3 children, 41 (10.9%) had 4 children while 10 (2.7%) and 6 (1.7%) had 5 and 6 children respectively.



**Research question 1: Determine the influence of family structure on the nutritional status of children****Table 2: Influence of family structure on the nutritional status of children**

Variables	Strongly agreed n (%)	Agreed n (%)	Strongly Disagreed n (%)	Disagreed n (%)	Mean $\pm$ SD
Separation of a child from his mother can lead to poor nutritional status	9 (2.4)	25 (6.6)	110 (29.3)	232 (61.7)	3.50 $\pm$ 0.73
Neglect caused by divorce can lead to poor nutritional status	8 (2.1)	35 (9.3)	119 (31.6)	214 (56.9)	3.43 $\pm$ 0.75
Leaving the child in the care of an older sibling for long hours per day leads to poor nutritional status.	16 (4.3)	99 (26.3)	116 (30.9)	145 (38.6)	3.03 $\pm$ 0.91
The higher the number of people per house the lower the food available for children	39 (10.4)	67 (17.8)	154 (41.0)	116 (30.9)	2.92 $\pm$ 0.95
A family where both the mother and father provide money for feeding has more nourished children than a family where only one person does.	7 (1.9)	37 (9.8)	109 (29.0)	223 (59.3)	3.46 $\pm$ 0.75
A family that has both parents provides more food for the children than a single parent home.	9 (2.4)	72 (19.1)	119 (31.6)	176 (46.8)	3.23 $\pm$ 0.84

Grand mean 3.29  $\pm$  0.24

Table 2 shows that 232 (61.7%) of the respondents strongly agree that separation of a child from his mother can lead to poor nutritional status, 110 (29.3%) agree, 25 (6.6%) disagree while 9 (2.4%) strongly disagree. A mean response value of 3.50 which is greater than the criterion mean of 2.5 confirms that majority agree; and a standard deviation of 0.73 very close to the mean indicates low variability in their responses. Likewise all the other variables: neglect caused by divorce with mean response value of 3.43, leaving the child in the care of older siblings with mean response value of 3.03, higher the number of people per household the lower the food available for children with mean response value of 2.92, better nourished children in families where both parents provide food with mean response value of 3.46 and better nourished children in both parents family than single family with a mean response value of 3.23 had mean scores above the criterion mean of 2.5 showing that most of the respondents agree.

The grand mean score of 3.29 and SD score of 0.24 which is greater than the criterion mean of 2.5 confirms that family structure has an influence on the nutritional status of children.

**Research question 2: Determine the influence of Socio-economic status on the nutritional status of children****Table 3: Influence of Socio-economic status on the nutritional status of children**

Variables	Strongly agreed n (%)	Agreed n (%)	Strongly Disagreed n (%)	Disagreed n (%)	Mean $\pm$ SD
The occupation of the breadwinner can affect the nutritional status of children	7 (1.9)	47 (12.5)	91 (24.2)	231 (61.4)	3.45 $\pm$ 0.78
The person that controls the family finances influences food fed to children	13 (3.5)	88 (23.4)	122 (32.4)	153 (40.7)	3.10 $\pm$ 0.88
The family diet is better when the mother is in control of finances than when the father does.	49 (13.0)	89 (23.7)	86 (22.9)	152 (40.4)	2.91 $\pm$ 1.08
Poor families are more likely to have malnourished children than the rich families.	15 (4.0)	46 (12.2)	140 (37.2)	175 (46.5)	3.26 $\pm$ 0.82
Poor wage earners buy cheap food in order to make ends meet leading to poor nutritional status.	6 (1.6)	41 (10.9)	184 (48.9)	145 (38.6)	3.24 $\pm$ 0.71
Poor living conditions (inadequate water supply, inadequate sanitation) lead to infection which causes poor nutritional status.	7 (1.9)	10 (2.7)	87 (23.1)	272 (72.3)	3.66 $\pm$ 0.62

Grand mean  $2.91 \pm 0.26$

Table 3 shows that 231 (61.4%) of the respondents strongly agree that occupation of the breadwinner can lead to poor nutritional status, 91 (24.2%) agree, 47 (12.5%) disagree while 7 (1.9%) strongly disagree. A mean response value of 3.45 which is greater than the criterion mean of 2.5 confirms that majority agree; and a standard deviation of 0.78 very close to the mean indicates low variability in their responses. The person that controls the family finances influences food fed to children with a mean response value of 3.10, family diet is better when the mother is in control of finances than when the father is in control with a mean response value of 2, poor

families are more likely to have malnourished children than rich families with a mean response value of 3.26, poor wage earners buy cheap food in order to make ends meet leading to poor nutritional status with a mean response value of 3.24, poor living conditions (inadequate water supply, poor sanitation) lead to infection which causes poor nutritional status with a mean response value of 3.66 all had mean scores greater than the criterion mean of 2.5 confirms that majority agree. The grand mean score of 2.91 and SD

score of 0.26 which is greater than the criterion mean of 2.5 confirms that socio-economic status of the family has an influence on the nutritional status of children.

**Research question 3: Identify the religious and cultural practices that influence the nutritional status of children**

**Table 4: Religious and cultural practices that influence the nutritional status of children**

Variables	Strongly agreed n (%)	Agreed n (%)	Strongly Disagreed n (%)	Disagreed n (%)	Mean $\pm$ SD
Cultural beliefs and traditional practices have great influence on nutritional practices.	17 (4.5)	74 (19.7)	110 (29.3)	175 (46.5)	1.82 $\pm$ 0.90
Stopping breastfeeding once a new pregnancy has started.	41 (10.9)	81 (21.5)	101 (26.9)	153 (40.7)	2.03 $\pm$ 1.03
Mothers transmit pain to the child through breast milk.	152 (40.4)	143 (38.0)	37 (9.8)	44 (11.7)	3.07 $\pm$ 0.98
The first breast milk is dirty and should not be given to the baby.	196 (52.1)	101 (26.9)	25 (6.6)	54 (14.4)	3.17 $\pm$ 1.07
Eating less during pregnancy prevents birth complications caused by large babies.	93 (24.7)	101 (26.9)	78 (20.7)	104 (27.7)	2.49 $\pm$ 1.14
Feeding on eggs makes children thieves.	264 (70.2)	68 (18.1)	4 (1.1)	40 (10.6)	3.48 $\pm$ 0.95
Influence of significant others affect nutritional intake of children.	82 (21.8)	111 (29.5)	125 (33.2)	58 (15.4)	2.58 $\pm$ 0.99
Feeding on meat/fish make children thieves.	271 (72.1)	65 (17.3)	7 (1.9)	33 (8.8)	3.53 $\pm$ 0.90

Grand mean  $2.77 \pm 0.64$

Table 4 shows that majority of the respondents believed that feeding children egg, meat and fish makes them thieves with mean value response of 3.48 and 3.53 respectively while majority also disagreed with stopping breastfeeding in the advent of a new pregnancy with mean value score of 2.03. majority also disagreed that their cultural practices had influence on the nutritional status of their children with a mean response value of 1.82 but the grand mean score of 2.77 and SD score of 0.64 which is greater than the criterion mean of 2.5 confirms that religious and cultural practices has an influence on the nutritional status of children.

**Hypothesis 1:** There is no significant relationship between family structure influence and nutritional status of their children

**Table 5: One sample t –test of family structure influence on nutritional status of their children**

		Test Value = 2.5				
		Mean ± SD	t	P value	Mean difference	95% Confidence Interval of the Difference
Family structure influence		3.29 ± 0.24	29.679	< 0.001	0.76	0.71 - 0.81

**Decision rule:**

Since the significant value of the t statistic is less than 0.05 level of significance, the null hypothesis is hereby rejected and the alternative accepted. Therefore, there is a significant relationship between family structure influence and nutritional status of their children

**DISCUSSION**

**Influence of family structure on nutritional status of the children**

The influence of family structure on nutritional status of children among the study participants was relatively high. The study revealed that the grand mean score of 3.29 which is greater than the criterion mean score of 2.5 confirms that separation of a child from his mother (3.50), neglect caused by divorce (3.73), leaving care of children for older siblings (3.03), large families (2.92), and single parent families (3.23) all have been identified as factors that have a negative impact on the nutritional status of children thereby leading to poor nutritional status. This finding is in consonance with that of Tarrant, 2010 who found that more than a quarter of children in developing countries are underweight, stunted, wasted and suffer from certain diseases because of the separation of a child from his mother/his father, which could be as a result of broken homes, death or even the presence of a new pregnancy. It also coincided with the study of Oyira et al, 2010 which showed that though divorce is not usually a cultural practice in Africa, separation of a more temporary kind could be a major social factor in the development of protein energy malnutrition in Nigeria and Northern Cross River state in particular.

**Influence of Socio-Economic Status on Nutritional Status of the children.**

The result showed that nutritional status can be influenced by the occupation of the breadwinner of the family with a mean score of 3.45, the person who controls the family finances influences (intentionally or unintentionally) both the food fed to the children and their nutritional status, the family diet was agreed to be better when the mother is in controlling finances than when the father does with mean score of 2.91. When the mother

has little or no control over family funds, dietary arrangements may become haphazard. Poor wage and poor living conditions (inadequate water supply, inadequate sanitation were also found to be associated with poor nutritional status with a mean score of 3.34 and 3.66 respectively. This is in line with the study done by Osibegun (2008) who found that nutritional status is compromised where people are exposed to high levels of infection due to unsafe and or insufficient water supply and inadequate sanitation. It is also in line with Lucas & Gilles (2010) who noted that poverty is the main determinant of energy and nutrient malnutrition as evidenced by study done in rural Bangladesh household that emphasized that poor families are more likely to have malnourished children.

### **Religious and Cultural Practices that Influence the Nutritional Status of the children.**

The result of the study indicated that some religious and cultural practices like the believe that mothers transmit pain to the child through breast milk (3.07), discarding of colostrums (3.17), eating less during pregnancy in order to prevent birth complications caused by large babies (2.49), denying children some proteinous food like egg, meat and fish (3.48 and 3.53) are held strongly by the majority of the respondents which can lead to poor nutritional status although few of them with a mean score of 2.03 believe that breast feeding should be stopped once a new pregnancy has started.

This situation corroborates the observation of Hossaini, 2008 who found that colostrums is discarded in Ubanese culture and seen as being harmful, they also have the believe that breast feeding is not only about transmission of nutrition from mother to child but also about transmission of physical pain, given that abdominal cramping postpartum is essentially universal due to uterine involution, a mother can deny her child of breast milk so as not to transmit the pain she is feeling to him/her. The practice of giving children egg, meat and fish were being restricted because of the belief that it will predispose them to stealing is widely believed by the respondents and this can lead to protein- energy malnutrition.

### **Implication of the findings**

Malnutrition is a major childhood killer disease and is responsible for over 60 percent of avoidable maternal and infant mortality. Therefore, the socio-cultural factors influencing nutritional status like family structure, socio-economic status religious and cultural practices and maternal education should be addressed by the nurses through community health outreach programmes in order to educate and encourage the mothers on the adequate and affordable ways of meeting the nutritional needs of their children.

## **CONCLUSION**

Based on the findings of this study, the following conclusions have been made.

□ Family structure has a great influence on nutritional status of children with a grand mean score of 3.29. Separation of children from mother, neglect caused by divorce,

leaving care of children to older siblings, large families and single parent families all have a negative impact on the nutritional status of children.

□ Socio-economic status of the family like the occupation of breadwinner, the person who controls the finance, poor ways and poor living conditions (inadequate water supply, inadequate sanitations), with a grand mean score of 2.91 has a negative influence on the nutritional status of children.

□ Religious and cultural practices like believe that mothers transmit pain to child through breast milk, discarding of colostrums, eating less during pregnancy in order to prevent birth complications caused by large babies, denying children of egg, meat and fish are held strongly by the mothers and all can have a negative impact on the nutritional status of children.

□ Maternal education has a strong influence on the nutritional status of children. Educated mothers had less number of children malnourished than uneducated ones.

### **Recommendations**

Based on the findings, the following recommendations are made.

□ Health care personnel should educate mothers on factors that lead to poor nutritional status. Improvement on nutritional status of children can be achieved through increasing client's knowledge especially in the rural areas to discourage those detrimental practices that lead to malnutrition.

□ The importance of exclusive breast feeding and the use of locally available, highly nutritious food resources as weaning diet should be taught during antenatal period and community outreach programmes.

□ Women empowerment should be encouraged as it promises improved family finances, better food security and better childhood nutrition.

□ Government should be involved to help improve the socio-economic level of the people through the provision of employment opportunities, provision of adequate water supply, affordable health facilities and other social amenities.

### **Suggestions for further studies**

There is need to further investigate if similar situations exist in other local government areas in the state. This study should be replicated by other researchers in order to strengthen the foundation for interpreting results.

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