

## **Perceived factors associated with childhood malnutrition among young parents in Nsukka Local Government Area, South-East Nigeria**

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### **Abstract**

The study examined factors associated with childhood malnutrition among young parents in Nsukka, South-East Nigeria, using a mixed-method approach. A cross-sectional survey was conducted between May to December 2016 in Nsukka and Obimo communities, Nsukka, Nigeria. A sample of 195 respondents was randomly selected to participate in the study. Data was analyzed using SPSS while, frequency and percentages were used to present the data. Findings indicate that knowledge of childhood malnutrition was more common among the female (43.1%) than male (31.3%) respondents. The practice of food exemption for children was observed in the communities; with more female than male respondents (46.7% vs. 31.8%) supporting it. The study noted an increased awareness of the sources of good nutrition for children among the respondents, though the awareness has not solved the problem given the greater percentage that upholds the cultural practices/orientations of the people. A sustained health education on child nutrition targeting young parents is still needed.

**Keywords:** childhood nutrition, cultural practices, food exemption, malnutrition, young parents.

### **Introduction**

Adequate nutrition at each stage of child development is fundamental human rights with malnutrition viewed as antithetical to the rights of the child (Federal Ministry of Health (FMOH), 2014). The joint child maltreatment estimate from 1990 to 2017 indicated that malnutrition is widespread across the globe, and covers stunting, wasting, severe wasting, and overweight especially among under-5 children or youngsters (United Nations Children's Fund (UNICEF), World Health Organization (WHO) & World Bank Group, 2017). Further, key discoveries in 2020 uncovered that the worldwide network is still a long way from a world without malnutrition, just as deficient advancement to arrive at the World Health Assembly targets set for 2025 and the Sustainable Development Goals set for 2030 are uncertain (UNICEF, World Health Organization, International Bank for Reconstruction and Development/The World Bank, 2020). This situation has implications for survival, acute and chronic diseases, healthy development, and the economic viability of individuals and societies. Malnutrition has been noted to be associated with poverty, chronic food insecurity, poor feeding practices, and prolonged health harms, and more common among low- and middle-income countries (Hussein & Adam, 2015).

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Hunger and poverty remain widespread in Africa despite the appreciable economic growth recorded, and families are in difficulties providing nutritious food and possibly exposing children to malnourishment (UNICEF, WHO, International Bank for Reconstruction and Development/World Bank, 2020). More so, Nigeria has been observed to have the second-highest burden of stunted children in the world, with a national malnutrition prevalence rate of 32 percent of children under-5 (UNICEF, 2020). Worse still, according to the report of UNICEF (2020), an estimated two million children in Nigeria suffer from Severe Acute Malnutrition and only two out of every 10 children affected are being treated. Malnutrition in childhood has many adverse consequences for a child's survival, long-term wellbeing, and overall national development, and was noted to be of significant concern for policymakers in Nigeria (United States Agency for International Development (USAID), 2018). Consequently, nutritionists have raised the alarm that malnutrition is an epidemic in Nigeria (Obinna, 2020). Malnutrition, especially for children under-5 accounts for the death of about half a million children each year in Nigeria (Edeh, Ichoku, Iloka, Kumar & Omotosho, 2017; UNICEF, 2020), and Enugu state is among the most affected states (Chinedu, 2020). UNICEF (2020) noted that 138,720 (14.5 percent) of Enugu state's 956,690 young children under-5 years of age are stunted. Also, an investigation of underweight and overweight in Enugu state uncovered that there is evidence of malnutrition among young children in the state; with hazard factors for undernourishment ascribed to maternal training and low financial class (Jude, Chukwunedum & Egbuna, 2019). Another study in Enugu and Nsukka urban indicated that there is a high predominance of undernourishment among preschool youngsters, and more observable among preschool kids [4-5 years] (Amadi, Ezenwosu & Odetunde, 2018).

Given the reports on malnutrition among children and its severe effects on their health and lives, studies have investigated the drivers of malnutrition among children who are under-5 years in Nigeria. Factors that were revealed as significant include residence, paternal knowledge and awareness of nutritional practices and food use, poor food intake/inadequate diet, deprivation and social inequality, women's education and their socio-economic status, birth order of children, and complete immunization. Variations in malnutrition between urban and rural areas were assessed by Save the Children Fund (2016) and the rate of child stunting in rural households in Nigeria was estimated at 43.2%, compared to 26% for children living in urban areas. Safari, Masanyiwa & Lwelamira (2015) in their study reported that the nutritional condition, the low level of paternal knowledge of nutritional practices, and food use in rural areas are crucial in designing appropriate interventions since the large proportion of the malnourished children inhabit rural areas. Literature also revealed that children living in the rural settings are more exposed to stunted, and being underweight depends more on the household composition and occupation of the mother (Keino, Plasqui, Ettyang & Borne, 2014), including poor food intake/inadequate diet, deprivation and social inequality, amongst others (Wafaa, Safaa & Randa, 2017). Further, predictors of malnutrition in children under-5 years involve women's education, parental socioeconomic status, birth order of children, and complete immunization (Ijarotimi, Adebisi & Fatiregun, 2016; Ozoka, 2018). Additionally, Ayogu, Afiaenyi, Madukwe & Udentia (2018) observed that lack of awareness of food use and absence of nutrition planning among parents and caregivers of children as well as family income were

significant indicators of under-weight, stunting, thinness, and malnourishment in children in Enugu state. These predictors are likely to be instrumental to the continued malnourishment of children and thus the need for integrated efforts to identify priority activities for reducing malnutrition in children.

Becker's microeconomic household production model was adopted in this study. Becker's model was premised on the assumption that households combine time and market goods to produce more basic commodities that directly enter their utility functions (Becker, 1965), and illuminated the household determinants of nutrition (Pollak, 2002). According to the theorist, a household's nutrition production function relates a child's nutritional status to a set of health inputs (such as the child's nutrient intake, breastfeeding the child and its duration, preventive and curative medical care, and the quantity and quality of time devoted to the child by the mother or other caregivers ('Chapter-II', n.d.). Added to the production function is the quality of a child's care time which is the function of the caregiver's age, experience, education, own health status, and income level of mothers (Chandrasekhar, 1972; Pollak, 2002). Evident in the ideals of the model was that a child's nutritional status reflects the combined effects of his/her household's nutrition production function and the quantity and quality of care time devoted to the child, which are functions of factors such as health inputs, access to adequate nutritious food, caregivers' age, experience, education, the income level of mothers, among others. Health inputs implies also awareness, access, and knowledge of health information that will improve a child's nutritional status. Thus, childhood malnutrition may be associated with a lack of information about households' nutrition which social workers can easily provide to mothers and caregivers.

The social work profession has, as part of its priority interests, enhancement of human wellbeing as well as meeting their basic needs (National Association of Social Workers, 2017); particularly those of whom are vulnerable such as children and families living in poverty. Malnutrition in children has been recognized to have a basic underlying causality that corresponds to poverty and social workers practicing with children and families or those working in the hospitals are in a better position to interface with the families, communities, organizations, and government to ensure that programmes aimed at reducing malnutrition in children have their implementation plans/actions targeted toward the underlying drivers (NesaPriya, & Premraj, 2017; O'Loughlin, & O'Loughlin, 2016).

The efforts to mitigate childhood malnourishment in Nigeria and particularly in Enugu State has relatively noteworthy expectations of reducing malnutrition among children in the state. The government of Nigeria has made some global and regional commitments (from 2009 – 2017) to scale up nutrition of its youngsters and pledged to reduce under-5 mortality to 20% or fewer deaths per 1,000 live births by 2035 by reducing the leading preventable causes of child mortality, including malnutrition and undernutrition (USAID, 2018). Also, Enugu State Primary Healthcare Centre Development Agency (ENS-PHCDA) in a joint effort with the Federal Ministry of Health, National Primary Healthcare Development Agency, UNICEF, and Ugo Touch of Life Foundation (U-TOLF) has built up uncommon focuses in three senatorial zones with the expectation of complimentary screening and treatment of intense lack of

healthy sustenance in children (Chinedu, 2020). UNICEF has since 2009, provided support to Nigeria on the National Plan Action on Food and Nutrition. They have fortified wellbeing and network frameworks and completely coordinating nourishment into all parts of the primary health care (PHC) framework, with a specific spotlight on Community Management of Acute Malnutrition (CMAM), Infant and Young Child Feeding (IYCF) mediations, and micronutrient supplementation. However, despite the joint efforts made by the government at the national and state levels plus the UNICEF support, there is still an absence of exceptional accomplishment of a decrease in the rate of malnourishment in children (UNICEF, 2020). Therefore, given the report on efforts targeted at mitigating malnutrition in children and the continued record of cases of child malnutrition in Enugu state, this study examined the perceived factors that are associated with childhood malnutrition among young parents in Nsukka LGA. Identifying the specific factors that interplay to contribute to malnutrition in children is essential to inform priority areas/actions of focus on efforts and interventions targeted at reducing childhood malnutrition in Nsukka LGA and Enugu State. The following research questions guided the study: What is the level of knowledge of the respondents on childhood malnutrition? What factors contribute to malnutrition in children? What measures can be adopted to control childhood malnutrition?

## **Materials and methods**

### *Design of the study*

The cross-sectional survey design involving the mixed-method approach was adopted for the study. The cross-sectional design enabled the researchers to explain the characteristics of the population using a representative sample. The mixed-method approach has emerged as a way of improving the research process and findings. The use of a mixed-method approach provides a wider range of coverage that may lead to a better research output than would have been achieved otherwise (Bonoma, 1985).

### *Area of the study*

The area for this study was Nsukka Local Government Area (LGA) which is located in Enugu North Senatorial zone of Enugu state. The LGA is lying at the border between the Northern and Southern regions of Nigeria. The LGA headquarters is Nsukka town which is located 70 kilometres North of Enugu Metropolis which is the administrative headquarters of the present Enugu state of Nigeria. The people of Nsukka LGA are predominantly farmers and their staple foods are yam and cocoyam. Nsukka and Obimo communities in the LGA were purposefully selected for the study. This is due to the cultural practice of food exemption for children upheld in the communities and evidence of stunting and undernourishment among preschool children as reported by Amadi, Ezenwosu & Odetunde (2018). Also, research on malnutrition in children in the area has remained relatively poor. The 2006 Population census puts the population of Nsukka at 309,633 people; comprising 149,241 males and 160,392 females (National Population Commission, 2006).

### *Sample and sampling procedure*

A multistage cluster sampling, which involved purposive, simple random, and availability sampling, was employed in selecting respondents for the study. Purposive

sampling technique was used to select two communities (Obimo and Nsukka) in Nsukka LGA given the stated rationale while simple random and availability sampling procedures were adopted in selecting 195 respondents (83 men and 112 women) from the two communities. To select respondents in each community, a central point was randomly selected, and from that point, one route was randomly selected and followed. The households along the route were listed and one woman or man who was eligible and available at the time of the researchers' visit was selected in alternate form for the study. In a household where there was more than one eligible person, only one person was selected through the same process. The process continued until the number required in each community was reached. The sampled respondents comprised adult males and females with children aged between 0 – 5 years. Those that have children who are above 5 years of age during the period of the study were excluded. The 195 respondents sampled in the communities were selected because they met the inclusion criteria for the study (having a child aged 0-59 months and being available and willing to participate in the study). The difference in the number of men and women in the study was because there were more mothers in the population than fathers. For instance, there were widows and single mothers who were part of the study.

For the qualitative aspect of the study, a total of six Focus Group Discussion (FGD) sessions were conducted with seven persons in each group (42 participants in all). Purposive sampling was used to select a homogeneous group of participants (who met the inclusion criterion) for the FGDs. The six FGD sessions were held with three groups comprising of all males and another three groups comprising of all females. Thus, in Obimo, two male groups and one female group were held while in Nsukka, two female groups and one male group were held making a total of six groups. The purpose of having a homogenous group was to allow each sex the opportunity to freely express themselves. This approach was supported by Undie, Crichton and Zulu (2007) who in their study found that FGD with the same-sex is more fruitful than mixed sexes for investigating issues of cultural importance. Local dialect was used for non – literate respondents while the English language was used for the literate ones.

#### *Instruments for data collection*

The researchers employed the questionnaire and focus group discussion guide as instruments for the study. These instruments complemented each other; however, the questionnaire was the major instrument for data collection. The questionnaire was divided into two sections, A and B. Section A focused on the demographic information of the respondents while section B dealt with the substantive issues of the study. The focus group discussion guide was used to elicit more detailed information from the respondents.

#### *Data collection and analysis techniques*

Given the sample size for the study, two research assistants were recruited and trained on the methods and objectives of the study. The assistants were recruited because of their familiarity with the study area and the local dialect. The questionnaires were other-administered with the help of the research assistants, while the researchers conducted the FGDs.

The data collected from the questionnaire were computer-processed and analyzed using Statistical Package for the Social Sciences (SPSS). Descriptive statistics such as percentages and frequency tables were employed in presenting and describing the results. The audio files from the FGDs were transcribed and analyzed verbatim. Coding and analysis of the qualitative data followed a rigorous iterative process of reading through the transcripts to make sense of what was said as well as ensuring that the transcripts align with the notes. This helped in sorting and grouping the data into units of corresponding ideas. To this end, relevant themes were developed from the coded transcripts and they include knowledge about childhood malnutrition, practice/support of food exemption for children, measures to control childhood malnutrition, and obstacles to reducing the problem of malnutrition among children. Contextual or special connotations were noted and pulled out as illustrative quotes to complement the statistical data.

### **Ethics**

Participation in the study was voluntary and informed (verbal) consent was obtained from the participants before the commencement of the discussions. They were assured of confidentiality, the anonymity of their responses, and their right to withdraw their participation at any time. The Health Research Ethics Committee of the University of Nigeria Teaching Hospital, Ituku Ozalla, approved the study with a clearance certificate bearing the registration number: NHREC/05/01/2008B-FWA00002458-1RB00002323.

### **Results**

#### *General demographic characteristics of the study population*

The demographic characteristics of the respondents as shown in Table 1 reveals that more of the female (57.4%) than male respondents (42.6%) participated in the questionnaire study whereas an equal number of males and females participated in the FGDs. Amongst the respondents to the survey, a higher proportion (49.2%) were aged 18–28, while most of the FGD participants (40.5%) fall within the age bracket of 29–39 years. A greater proportion of the respondents in the survey (70.3%) and FGD (59.5%) were married while only 8.7% and 11.9% were widowed respectively. A higher proportion of them were traders (47.2% & 28.6%) and farmers (37.9% & 38.1%) while only 4.1% were unemployed.

Again, secondary education appeared as their highest level of education as was indicated by the greater proportion of both the survey and FGD respondents (42.1% & 33.3%) while only 4.6% of the survey respondents completed university education. The result on income level shows that a significant percentage of the respondents earn below 40,000 per month. This was shown by the greater percentage of the respondents in the survey and FGD (45.6% & 47.6%) who indicated that they earn below ₦20000 and (34.4% & 35.7%) and ₦40000 per month.

**Table 1***Socio-demographic characteristics of the study population*

<b>Demographic variables</b>	<b>Questionnaire respondents (n=195) Frequency/Percentage (%)</b>	<b>Respondents in the FGD n=42 Frequency/Percentage (%)</b>
<i>Age</i>		
18 -28 years	96(49.2)	11(26.2)
29 – 39 year	55(28.2)	17(40.5)
40 – 50 years	28(14.4)	06(14.3)
51 and above	16(8.2)	08(19.0)
<i>Sex</i>		
Male	83(42.6)	21(50)
Female	112(57.4)	21(50)
<i>Marital status</i>		
Married	137(70.3)	25(59.5)
Ever married	41(21.0)	12(28.6)
Widowed	17(8.7)	05(11.9)
<i>Occupation</i>		
Trading	92(47.2)	12(28.6)
Farming	74(37.9)	16(38.1)
Civil servants	21(10.8)	08(19.0)
Unemployed	08(4.1)	06(14.3)
<i>Level of education</i>		
No formal education	18(9.2)	07(16.7)
Attempted primary education	44(22.6)	-
Attempted secondary education	27(13.8)	10(23.8)
Completed secondary education	82(42.1)	14(33.3)
Attempted post-secondary education	15(7.7)	11(26.2)
Completed University education	9(4.6)	0(0.0)
<i>Monthly income</i>		
Below 20,000	89(45.6)	20(47.6)
20,000 – 39,000	67(34.4)	15(35.7)
40,000 – 59,000	31(15.9)	07(16.7)
60,000+	08(4.1)	0(0.0)

**Source:** *Fieldwork, 2016*

*Views of childhood malnutrition*

The respondents views on childhood malnutrition according to their gender is presented in Table 2.

**Table 2**

*Cross-tabulation of respondents' gender and their views on childhood malnutrition*

Respondents' views	Female, n (%) Male, n (%) Total n (%)		
	n=112	n=83	N=195
<i>Knowledge about childhood malnutrition</i>			
No	28(14.4%)	22(11.2%)	50(25.6%)
Yes	84(43.1%)	61(31.3%)	145(74.4%)
<i>Opinion on whether the children reject eating beans</i>			
No	32(16.4%)	27(13.8%)	59(30.3%)
Yes	80(41%)	56(28.7%)	136(69.7%)
<i>Opinion on whether they support food exemption for children under-5 years</i>			
No	21(10.6%)	21(10.8%)	43(21.5%)
Yes	91(46.7%)	62(31.8%)	153(78.5%)
<i>Contributory factors to childhood malnutrition</i>			
Poverty	17(8.7%)	14(7.2%)	31(15.9%)
Inadequate diet	33(16.9%)	21(10.8%)	54(27.7%)
Disease/infection	27(13.8%)	19(9.7%)	46(23.8%)
All of the above	35(17.9%)	29(14.9%)	64(32.8%)
<i>Measures to control childhood malnutrition</i>			
Proper dieting	23(11.9%)	22(11.3%)	45(23.2%)
Provision of food supplement by the government	51(26.3%)	36(18.6%)	87(44.8%)
Nutritional/healthcare education for Parents	37(19.1%)	25(12.9%)	

**Source:** *Fieldwork, 2016.*

In disaggregating the data by sex, the study showed that a majority of the females (43.1%) than males (31.1%) were aware of childhood malnutrition. This finding is not surprising as females are expected to be more knowledgeable than males about childhood malnutrition given that they perform caregiving roles to the children and spend more time with them than the males. Likewise, findings from the FGDs show that a good number of the female participants were more knowledgeable than the males about childhood malnutrition, and even mentioned the importance of good nutrition to



children, and believe that foods such as chicken, fish, meat, and eggs are sources of protein for children. Responses commonly expressed by the participants include “What I understand as childhood malnutrition is foods we give to our children, whether they contain the necessary nutrients and how often we give them to our children to support their growth” (*Male FGD participant, Obimo*), “In my own opinion, childhood nutrition means types of foods we give to children and how these foods help in their growth and development” (*Female FGD participant, Nsukka*), “I give my children meat when I have the money to buy it, but I mostly give them fish at least every Sunday to make sure they eat protein to grow well” (*Female FGD participant, Obimo*); “Giving adequate diet to children is very important to the health of all children, especially, for the ages below five years” (*Male FGD participant, Nsukka*). Views voiced by other participants revealed that some of them believe that not giving children food that contains animal protein is one of the leading causes of stunting and malnourishment among the children in their village:

For me, I give my children chicken whenever I kill any of my mature fowls. I also give them eggs laid by the fowls, and cow meat when I buy it. The reason I give them all this is that I want them to be intelligent and grow more than myself (*Female FGD participant, Nsukka*).

Children should be given such food starting from when they are one year old. Meat, fish, chicken, eggs, and other types of food that can give them protein are what they need. I make sure my wife gives my boys either meat or fish every week. I am not part of those that condemn giving children such food because that is a wrong belief and that is why you see many children in this our village are short in height (*stunted*) and look sick (*malnourished*) (*Male FGD participant, Nsukka*).

Further, more of the female than male respondents indicated that their children reject eating beans (a plant protein) (41% & 28.7%), and support and practice food exemption for children; especially for those less than five years of age (46.7%) as against the males (31.8%). This result is no different from the finding evidenced in the FGDs as a greater number of the female than male participants were of the view that it is wrong for a child to eat poultry product, especially the eggs because it is against their cultural norm; “In Nsukka traditional setting, we do not introduce the consumption of eggs too early to children, especially the under-5 children because in due course, they will become snakes that steal the neighbour’s eggs (*Female FGD participant, Obimo*)”, “Once the practice of eating chicken or eggs becomes a part of a child, s/he can hardly deviate from such behaviour. S/he can resort to stealing the eggs or money to purchase it, especially when the behaviour is distorted (*Male FGD participant, Nsukka*)”. Additional views aired by some other participants include:

Why should little children learn to eat such food now?. I don’t believe it is right to start giving them meat and fish at that little age because if you don’t have it to give them when they ask for it, they will go to the pot to steal them. It is the easiest way for children to learn how to steal (*Male FGD participant, Obimo*).

I don't give my children meat or fish because they are still little and should not start eating such things now. I use meat and fish to serve their father his meal and to serve other adults. That is a sign of respect for the elders and that is what I was taught. I will give such food to my children when they are of age (*Female FGD participant, Obimo*).

Stories abound even in the Bible, that when one trains a child well, such a child will not depart from it. Therefore, if we train our children on poultry consumption early in life, there is no way such children will abandon such training/eating of chicken and eggs. This will constitute a serious problem for the children; therefore, we should not encourage this behaviour too early in life (*Female FGD participant, Nsukka*).

I know that beans is one of the best sources of protein food for children, but as for me as a mother, I do not like eating beans and I did not introduce it to my children. None of my children likes eating beans because I have not been cooking it for them (*Female FGD participant, Obimo*).

From the results, it can be deduced that many of the respondents were knowledgeable about childhood malnutrition and sources of good nutrition for children, but culturally, some of them are not allowed to and are socialized into disapproving giving children under the age of five chicken and eggs. In this manner, the way people live, eat and what they believe affect their individual and collective health-seeking behaviour. These cultural practices of the people might lead to undernourishment and stunting in a good number of children which invariably may lead to high infant mortality, especially in the rural communities.

Also, the result presented in table 2 above shows that the contributory factors to childhood malnutrition, according to responses from the female and male respondents, include: poverty (8.7% & 7.2%), inadequate diet (16.9% & 10.8%), and disease/infection (13.8% & 9.7%). Lastly, 14.9% and 32.8% of the female and male respondents indicated that all the options mentioned contribute to childhood malnutrition. Revealed in this result was that inadequate diet in children, due to the support given to the practice of food exemption and mostly among the females (46.7%), has been identified as one of the outstanding causes of childhood malnutrition, followed by diseases/infection and poverty.

The table also shows that among the measures to control childhood malnutrition, a greater percentage of the respondents (26.3% & 18.6%) indicated that the provision of food supplements by the government is the best. The next was the provision of nutritional/healthcare education to the parents (19.1% and 12.9%) and the least proportion of the respondents suggested proper dieting of the children (11.9% and 11.3%). Buttressing the responses of the survey respondents, some of the female FGD participants mentioned the symptoms of malnutrition in children and measures they employ to control it in their respective homes. Only one of the male participants stated that women are expected to notice signs of malnutrition in children and take appropriate action given that they spend more time with them. According to the

participants, “Whenever any of my children is unable to play with other children or is having swollen legs and abdomen, I know there is a problem so I usually run to the health centre for treatment (*Female FGD participant, Nsukka*)”, “What I can say is that once a child is properly fed with nutritious meals every day, such a child will not show any sign of malnutrition in his/her body (*Female FGD participant, Obimo*)”. Other views expressed by the participants include:

As for me, I am familiar with the symptoms of childhood malnutrition because they always teach us that during our antenatal visits at the health centre. These signs are swollen abdomen or feet, loss of weight, and constant illness. So, I will suggest an adequate diet for such a child instead of rushing to see the doctor. I will also suggest more educational opportunities for us parents because many of us don’t know this information about children’s nutrition (*Female FGD participant, Obimo*).

Women are the ones that stay with these children all the time so they are expected to notice any sign of malnourishment in children and take the necessary actions. So, if my wife sees such a thing and brings that to my notice, the first thing I will do is to take the child to the hospital for medical attention and proper treatment (*Male FGD participant, Nsukka*).

Additionally, most of the respondents noted the major obstacles facing parents in this regard. Almost all the female respondents stated that insufficient money to purchase enough quantity of the required nutritious food for children constitutes a major setback in the provision of such food. Some other participants mentioned that their cultural/traditional orientation of the practice of food exemption for children poses as a major challenge to reducing the problem of malnutrition among the children in their communities. The respondents summarized their views this way:

Our major challenge as parents is money. We lack the money to buy all the necessary nutritious foods for our children. Most of us you see in this village are poor and we struggle to provide for our families. Things are hard these days and every parent is barely managing to feed their families. Nobody is considering nutrition now because the most important thing now is to see the food to eat (*Male FGD participant, Nsukka*).

The first thing we need to do to control childhood malnutrition is to give our children attention and care. We need to know when they are well and when they are sick and even when their body needs food or medicine (*Female FGD participant, Obimo*).

Another hindrance to child nutrition could be attributed to our people’s cultural and traditional orientation. This is because many homes have socialized their family members on what to cook and give to children and on what not to cook or give the children and this is affecting our children’s growth and health (*Male FGD participant, Nsukka*).

This kind of orientation or socialization as indicated by the respondents has serious implication on the health and growth of the children given that the foods the communities forbid children from eating are more needed at a young age than adulthood, and the body system of these children needs these nutritious foods more than the adult members of a family. The implication of the argument here was further buttressed in the view expressed by a male participant who said:

Although we are aware that the tradition or orientation of food exemption as was handed over to us could result in a lot of children in our domain being malnourished, we are obligated to uphold our culture (*Male FGD participant, Nsukka*).

Nevertheless, this result implies that confronting malnutrition may require collaborative efforts across sectors and disciplines in Nigerian society.

### **Discussion**

This study examined perceived factors associated with childhood malnutrition among young parents in some selected communities in Nsukka LGA, South-East Nigeria. Findings from the study revealed one of the reasons childhood malnutrition persists in Nigeria. This was shown in the views of a majority of the respondents who affirmed that their under-5 aged children reject eating beans and are denied consumption to adequate diet due to the practice of food exemption by the parents. This practice negates the commitments put in place by the Nigerian government, its recommendations to scale-up nutrition of young children, and actions targeted at reducing under-5 mortality and its leading preventable causes (including malnutrition and undernutrition) by 2035 (USAID, 2018). This also has serious implications on the growth and development of children in Nigeria given that when children lack consumption of these plant and animal proteins due to the practice of food exemption by their parents, and their apparent unchanging inclination to their cultural orientation, they are likely to be malnourished. Corroborating this finding, other studies have shown that in the low and middle-income countries, malnutrition, among other deficiencies, accounts for about 3.1 million child deaths annually (Oruamabo, 2014), and the challenge of malnutrition for children under-5 accounts for the death of about half a million children each year in Nigeria (Edeh et al., 2017; UNICEF, 2020).

Additionally, this study found that poverty, inadequate diet, and disease/infection are amongst the leading factors contributing to childhood malnutrition. This is similar to the reports of other studies that equally highlighted the contributory factors to childhood malnutrition including poor food intake/inadequate diet, deprivation and social inequality, amongst others (Wafaa et al., 2017), poverty, chronic food insecurity, poor feeding practices, and prolonged health harms (Hussein & Adam, 2015) and family income (Ayogu et al., 2018). These have implications for the healthy development and growth of children (UNICEF, 2020; WHO, 2020).

Another important finding in this study was the higher proportion of the respondents (though more of the females than males) that support the practice of food exemption for under-5 aged children despite their indication of being aware of the dangers of such practice. Similar to this finding was the observation in Ijarotimi et al. (2016) study

which noted that there is an association between parents' level of education and malnutrition rates among children. Thus, lack of adequate parental education on the importance of a child's nutrition may contribute to the support given to the practice of food exemption for children, and will likely stall efforts targeted at reducing the problem of malnutrition among children in the communities.

Findings from this study revealed that a good number of under-5 children reject eating beans and are denied consumption of some animal proteins due to the practice of food exemption by their parents and that poverty, inadequate diet, and disease/infection, amongst others, put together connote the leading contributors to childhood malnutrition. These findings as indicated underscore the determinants of a child's nutritional status as noted by Becker in his microeconomic household production model. Becker's microeconomic household production model posits that a child's nutritional status reflects the combined effects of his/her household's nutrition production function and the quantity and quality of care time devoted to the child, and determined by the health inputs, access to adequate nutritious food, caregivers' age, experience, education and income level of mothers, among others. Thus, childhood malnutrition is indeed associated with inadequacy in households' nutrition production function as evidenced in the practice of depriving the children, the consumption of nutritious foods by their parents, and support for upholding such practice (which can be attributable to the parents' education).

Findings from this study highlighted substantial policy and practice implications for Nigeria policy actors, nutritionists, and social workers. A good number of the respondents in this study expressed poor feeding behaviour by their practice and support of food exemption for their under-5 children. This is one of the risk factors for the nutrition status of a people and will indeed affect the children's health, growth and may result in an increased risk of death. Given this finding, the policy actors are expected to scale up nutrition education for young parents in the rural communities by proactively looking into some of the policy advice provided by UNICEF on nutrition interventions, specifically, that focusing on supporting the education and counselling of mothers and caregivers of children on how/the need to adequately feed the children. This they can do by liaising with the nutritionists (through the nutrition division in the Department of Family Health at the national, sub-national, and local levels) and social workers to map strategies/actions to be employed to weave in compulsory education of young parents into the already existing community-based programme for management and treatment of severe acute malnutrition, as well as coordinate and support their implementation. Additionally, the provision of food supplements by the government was highlighted in the findings of this study as the best measure to curb the effects of childhood malnutrition. This has an implication for families' survival and resilience in Nigeria's dwindling economy as communities that are noted for their agricultural produce considered provision of food supplement by the government as the best measure to curb the problem of childhood malnutrition. The children may likely continue to be malnourished and subsequently die of it when families would have made efforts to take advantage of their notable agricultural resources to meet most of the nutritional needs of their children.

Prominent among the measures to encourage improved nutrition of children as indicated in this study are proper dieting and parental education. This is pertinent for social workers practising with children and families in designing their intervention to focus on this area in the locales of their practice. This group of social workers is expected to reach out to the nutritionists/or family health personnel at the PHCs to streamline their interventions to fit into the existing community-based programme on the treatment of severe acute malnutrition. They are also expected to support the implementation of the interventions; particularly that addressing provision of trusted information to parents, caregivers, adolescent girls, teachers, opinion leaders, and the communities where support/practice of food exemption for young children is still upheld and create awareness on the nutritional challenges of such practice.

Based on these findings, this study recommends adequate nutritional health education/sensitization for young parents in rural communities by the stakeholders in child and family welfare. It also recommends that social workers practising with children and families should as well be integrated/ and actively participate in nutrition programmes being implemented in their practice settings. Furthermore, this study recommends that the reduction of malnutrition in children dwelling in rural communities should be given a high priority in the implementation of ongoing health care programmes and particular attention should be given to the sensitization of young parents/caregivers of the children.

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### **Conflict of interest**

The authors declare that there is no conflict of interest.

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