

# Coping with Household Food Insecurity: Perspectives of Mothers in Anambra State, Nigeria

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**Abstract** Household food security has been identified as an important determinant of an individual's nutritional status. Households are food insecure when the food available to them is limited or uncertain or when there is limited or uncertain ability to acquire suitable food in ways that are socially acceptable. In the event of food shortage, households tend to employ coping strategies to minimize its impact and maintain adequate food access. This was a qualitative study aimed at exploring the coping practices of mothers in Anambra State when faced with household food and financial shortage. It is part of a mixed methods comparative study on household food security as a determinant of the nutritional status of under-five children in the study area. Focus group discussions and in-depth interviews of mothers from three communities in Anambra State, Nigeria were conducted and thematic content analysis was carried out on data obtained. Several coping strategies were practiced by the participants including maternal buffering, reduction in the number of meals in a day and limiting portion sizes. Other common themes that emerged include differences in intra-household food distribution and gender-power relations as well as solutions to household food insecurity. Study participants expressed the desire for food assistance schemes and empowerment from the government and their communities in form of micro-credit loans, vocational training and jobs.

**Keywords:** household food security, coping practices, focus groups, in-depth interviews, thematic content analysis, gender, Anambra state, Nigeria

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## 1. Introduction

Household food security has been identified as an important underlying determinant of an individual's nutritional status [1,2]. Households are food insecure when the food available to them is limited or uncertain or when there is limited or uncertain ability to acquire suitable food in ways that are socially acceptable [3,4]. Household food insecurity is intricately linked with poverty [5]. According to the International Food Policy Research Institute (IFPRI), 29% of households in Nigeria in the poorest wealth quintile have unacceptable diets compared with 15% in the wealthiest quintiles [5]. Household food insecurity may affect dietary diversity by limiting access to and procurement of foods of higher quality and wider variety by poor and food insecure households. The relatively expensive costs of meats, fish, fruits, vegetables and whole grain products lead low-income households to resort to consuming limited food choices and cheaper food items which are more likely to be high in fat and energy density. Children are especially vulnerable to the effects of food insecurity as it has been linked to increased rates of iron-deficiency anemia, acute infection, chronic illness, poor school performance, developmental and psychological problems [6,7]. In

addition, it is also significantly associated with hypertension and diabetes in adults and overweight/obesity in both adults and children [6].

In the event of food shortage, households tend to employ coping strategies to minimize its impact and maintain adequate food access. These are activities that people 'choose' as ways of living through difficult times brought on by some sort of shock to their normal means of livelihood and way of living [11]. The diversity of coping strategies employed by food insecure households often reveals the severity and complexity of household food shortage [1,3,8]. For example, strategies such as reducing the number of meals in a day, reducing the amount of food cooked for meals, maternal buffering (a mother limiting her own food intake to ensure her child has enough to eat), borrowing from relatives may not be abnormal, are reversible and do not result in lasting damage. However, more drastic coping strategies such as skipping meals for a whole day, borrowing outside one's kinship network, sale of land and other productive assets signal worsening household food and economic conditions and can permanently undermine future food security [1,3,9].

An assessment of coping strategies by Oldewage-Theron et al [10] revealed that female caregivers in the sampled households employed coping strategies such as procuring and cooking a limited variety of foods (74.7%), maternal buffering by limiting the caregiver's intake to

make food available for the children (80%), skipping of meals (68.4%), and limiting portion sizes (75.8%). Similar coping strategies were employed for the children, namely fewer meals (78.4%), cutting portion sizes (74.7%) and skipping of meals (74.7%) [10]. Results from a study by Maxwell et al in Ghana [11] showed that the most common coping strategy for households was to conserve on expenses by eating cheaper, less-preferred food (77.3%) followed by rationing money through purchasing street food with available cash (64.8%). Mothers and homemakers also reported limiting their food intake in order to ensure that children had enough to eat and sometimes this required skipping meals for a whole day. Borrowing money or food was one of the least popular coping strategies (19%), the reason being that the respondents regard this coping strategy as a source of shame [11]. Other food coping strategies that may be used by households include reducing amount of food cooked for meals, reducing food variations in meals, reducing amount of food intake, reducing intake of fruits and vegetables e.t.c. [12]. In addition to food coping strategies, households may employ income/expenditure coping strategies [12] that include among others, reducing spending on children's education, getting cheaper treatment for illnesses, getting medical treatment only when situation gets worse e.t.c. [12]. Several early coping strategies to minimize household food insecurity have been found to be significantly different between food secure households and food insecure households [12].

## 2. Methodology

### 2.1. Study Design

This qualitative study formed part of a mixed methods comparative study, "A rural-urban comparative study on household food security as a determinant of the nutritional status of under-five children in Anambra state, Nigeria." It employed the use of focus group discussions and in-depth interviews.

### 2.2. Study Setting

The study was carried out in 2013 in three communities in Anambra State, South Eastern Nigeria, namely, Awka, Ukpoko and Ichida in Awka South, Dunukofia and Anaocha Local Government Areas (LGAs) respectively. Awka South is an urban LGA with a population of 189,654 [13] while Dunukofia and Anaocha are rural LGAs with populations of 96,517 and 284,215 respectively according to the 2006 Nigerian national census figures [13]. The three local government areas are similar in terms of their people being predominantly of the Igbo ethnic group and of the Christian religion. The language mainly spoken is Igbo while English and Pidgin English are also widely spoken.

### 2.3. Ethical Considerations

Ethical approval for the study was obtained from the Nnamdi Azikiwe University Teaching Hospital Ethical Committee (Reference number NAUTH/CS/66/VOL.3/11). Written informed consent was obtained without coercion

from the participants and respect for the confidentiality of the data obtained from them was ensured.

### 2.4. Study Participants

The study population was made up of women of childbearing age (15-49 years) with at least one child under the age of five years, living in the study areas for not less than one year prior to the start of the study. Mothers were chosen because of the central role they play in intra-household food procurement, preparation and distribution [14]. Participants were purposively sampled on the basis of marital status, ability to speak Igbo language, number of children, place of residence and poverty status. This was done in collaboration with community health workers in the three study locations. Non-married women, women who could not communicate verbally in Igbo language or give informed consent were excluded. The mothers were approached by trained data assistants who informed them about the study and obtained their consent to participate in the focus group discussions and in-depth interviews. Thirty-eight participants were recruited.

### 2.5. Data Collection

Two methods of data collection were utilized in this study namely focus group discussions (FGDs) and in-depth interviews (IDIs) which were conducted between January and April 2013. Both methods were triangulated in order to enhance the validity of the research findings. FGD and IDI guides were developed for the study and consisted of exploratory questions used to obtain respondents' perceptions on food shortage and financial constraints in the household.

Three FGDs, each made up of 10-11 participants were conducted in primary health care facilities in the study communities while six household-based IDIs were carried out with representation from the rural and urban subpopulations. All were conducted in Igbo language. The lead researcher moderated all three FGDs with the assistance of a note taker and an observer while the IDIs were shared by the lead researcher and trained research assistants. Written informed consent was obtained from the participants before conducting each FGD and IDI. The FGDs each had an average duration of 1½ hours while each IDI lasted between 60 and 90 minutes.

Audio recordings of the research conversations were obtained with the aid of a tape recorder after consent was obtained from the participants. The written notes of the interviewers and assistant note takers were subsequently compared with the transcribed recordings thus assessing and improving the reliability of the data collection process. The FGDs and IDIs involved discussions on the participants' concerns and feelings about food and financial shortage in the household, their perceptions of what causes these problems, the impact of food shortage on the children and mothers, coping practices of respondents and possible solutions to food and financial problems in the household.

### 2.6. Data Analysis

The audio recordings were transcribed verbatim in Igbo language and translated into English language for

subsequent analysis. These transcripts were read several times and compared with the written notes obtained during data collection. Coding and analysis of the transcripts were done manually with the aid of Microsoft Word® [15]. Thematic content analysis [16,17] of the qualitative data was used, an analytic method that involves identifying and categorizing common or recurring themes or distinct units of meaning in the text of the transcripts [16,17]. Quotes

from the participants that best described the various themes and sub-themes and expressed the views aired frequently in the groups and interviews were chosen. Internal validity was assessed and improved through source triangulation, that is, by using data from both the IDIs and the FGDs and by presenting quotes from several different participants to support a research finding [18].

**Table 1. Focus Group Discussion Guide**

Item	Question
1	Have you and your family ever been in a situation whereby the food you have in the home is about to run out and you don't have money to buy more?
2	When your food is running out, what do you do when you don't have enough food or money to buy food?
3	Would you consider borrowing money or food to augment the food in your home?
4	Have there been times when you had to go hungry for your children to have food to eat?
5	How is the food in your home distributed? Why do you choose to distribute the available food in this manner?
6	In your opinion, between the husband and the wife, whose responsibility is it to ensure that there is food in the home?
7	What advice do you have for mothers that will help them have enough food in the home?
8	What do you think can be done to help your family and other families in such situations of food shortage?

### 3. Results

The audio recordings of 38 participants from three FGDs and six IDIs were analyzed. Table 2 shows selected socio-demographic characteristics of the participants. Five consistent themes emerged from the discussions and interviews – “household food sources”, “anxiety about

household food shortage and lack of money”, “coping strategies during household food and financial shortage”, “inequalities in household food distribution and gender-power relations” and “mechanisms for improving household food security”. The themes and their sub-themes are described below.

**Table 2. Socio-demographic characteristics of participants**

Socio-demographic characteristic	Participants N = 38	
	N	%
Participant's age in years [Median (min, max)]	31.0 (20, 42)	
Husband's age in years [Median (min – max)]	42.9 (28, 67)	
Educational status		
No formal education	0	0.0
Primary	4	10.5
Secondary	26	68.4
Tertiary	8	21.1
Participant's occupation		
Professional <sup>a</sup>	2	5.3
Civil servant <sup>b</sup>	4	10.5
Trader	14	36.8
Farmer	4	10.5
Artisan <sup>c</sup>	8	21.1
Housewife	6	15.8
Husband's occupation		
Professional	1	2.6
Civil servant	6	15.8
Trader	24	63.2
Farmer	2	5.3
Artisan	3	7.8
Unemployed	2	5.3
Residence		
Rural	24	63.2
Urban	14	36.8

<sup>a</sup> teacher, nurse

<sup>b</sup> secretarial assistant, community health worker

<sup>c</sup> hair dresser, seamstress, sales lady

#### 3.1. Household Food Sources

The women reported that their household staple foods were rice and akpu (cassava meal); other foods reported as commonly found in their homes were beans, yam, garri

(also derived from cassava) and fior-fior (pigeon peas). Respondents in both the rural and urban communities reported that a large share of their household's food was purchased however more rural participants produced some of their own food compared to their urban counterparts.

Having enough food in the home was understood to mean having enough rice and akpu, indicating that their diets were largely starch-based; shortage of these two food items in the home was a significant source of anxiety as illustrated in the following excerpt:

*"I think the most important are rice and akpu. Those are the ones I get anxious about because we eat a lot of rice and akpu in our home"* (rural 37 year old farmer and petty trader).

### 3.1.1. Seasonal Variations in Food Availability

Respondents recognized seasonal variations in household food availability and noted that supply was less during the planting season:

*"...Like now we are about to enter into the planting season. You know that yam becomes expensive, even beans or fior-fior and similar nutritious foods become expensive during this season"* (urban 27 year old food seller).

*"You know that food can be scarce during the wet/planting season..."* (rural 35 year old trader).

## 3.2. Anxiety about Household Food Shortage and Lack of Money

Many of the informants had experienced situations when the food they had in the home was running out and they hadn't money to buy more. Shocks to the family such as severe illness of a family member drastically reduced available income that could be allocated to purchasing food.

*"Ah, my sister, we are always in that situation. Always. For example, the garri I have now is about to finish. My rice is about to finish. I called my husband to send me some money. He asked me whether the food will last till the next two weeks, that I should call him in two weeks time. A week has gone now; I will call him again next Sunday"* (rural 37 year old housewife).

*"Sometimes I don't have any money to spare, most especially regarding children's illnesses. My children have been very sick. The one older than this [child], there was a time he was sick and needed blood [transfusion]. My husband was able to raise 8000 naira. I wasn't able to use any part of that money to buy food, only medicine and blood tonic"* (urban 28 year old hair dresser).

Informants expressed being worried and anxious when food is running low in the home:

*"I feel worried. It's not good for food to be lacking in the house. When it happens, I keep running around to find a solution, you know, to find money to buy more food because of the children"* (rural 22 year old hair dresser).

*"I feel sad and anxious. I feel sad because when there is no money and there is no food too, it's the same kind of illness. If there's no food in the house and you don't have money to buy food, you wouldn't be happy at all. When you remember that both of them are not available, you become anxious. You keep worrying and wondering how you can get around it"* (rural 34 year old petty trader).

## 3.3. Coping Strategies during Household Food and Financial Shortage

All the respondents had experienced food shortage and lack of money in their household and employed different coping mechanisms. Various coping strategies were identified by the participants and these include reducing the number of meals eaten in a day, reducing the amount of food cooked for meals, limiting portion size, maternal buffering, borrowing money and borrowing food, buying food on credit, subsistence farming/home gardening and selling items.

### 3.3.1. Reducing the Number of Meals in a Day

This strategy was frequently identified by many of the respondents in all the FGDs and interviews and was used for both the adults and children in the household but more commonly for the adults.

*"What I do is...if we used to eat three times a day, we reduce it to one meal a day. I may give the children two meals in a day... [while] both of us [her husband] will eat once a day"* (rural 24 year old hair dresser).

*"For us...when food is low, we eat breakfast then I keep delaying our next meal. When it's 4 o'clock [in the evening], we eat and "dismiss for the day"* (rural 35 year old farmer).

*"If I see that the food in the house is running low, even if my children used to eat three times a day, I would give them only breakfast and tell them there will be no lunch but they should go and look for fruits that may have fallen from the trees around, maybe mangoes. In the night, they will eat the remaining food for supper."*

Interviewer: "How many children do you have?"

*"I have four children."*

Interviewer: "How old is your eldest child?"

*"My eldest is six years old"* (rural 30 year old housewife).

However some respondents did not agree with using this strategy especially for children.

*"You as an adult can survive on only two meals a day. It won't do you any harm because you're now an adult. But growing children are supposed to eat three meals a day, even if the meals are small, just let them have food in their bellies"* (urban 29 year old secretarial assistant).

They identified negative health outcomes (weight loss, peptic ulcers, weakness, anemia, dehydration, chronic illness) and "spiritual" consequences.

*"For a child who used to be plump, going hungry for two days or just even for a day would make that child lose so much weight, you wouldn't believe it's your child anymore"* (urban 25 year old trader).

*"Skipping meals affects a person's health. First of all, you'll start having [peptic] ulcers because there is a specific time a person is supposed to have breakfast. When the worm in your stomach begins to look for what it will eat and doesn't find anything, it starts chewing on your body from the inside"* (rural 32 year old seamstress).

*"You may feel you're okay now until you come down with an illness that no amount of money can cure except by the grace of God"* (urban 42 year old civil servant).

*"Not giving children a night meal or even you as an adult not eating at night is not good. My mother-in-law told me that instead of not feeding a child at night, don't give him lunch because after crying from hunger,*

*if he needs to run in his dream, if he's being chased by spirits, [how] will he have the strength to climb the hill in the land of the spirits?"* (rural 38 year old trader).

### 3.3.2. Reducing Amount of Food Cooked for Meals and Limiting Portion Size

Reducing the amount of food cooked for meals and limitation of portion sizes were common coping strategies used during household food insufficiency and financial shortage as reported by the participants. Some respondents limited portion size in response to shortage while others pre-empted shortage by getting their children used to smaller portion sizes in the event of such food and/or financial insufficiency.

*"If I used to cook four cups and we could eat as much as we want when food supply is plentiful and cheaper; now that we are in the planting season and food is scarce and more expensive...I don't serve everything I cook in one meal. I'll give much less, just enough to know that if you eat it and drink water, it will hold you. I'll save the rest of the food for supper"* (urban 27 year old food seller).

*"I reduce the amount of food I cook...when food is running low in the home. After cooking you ration the portions you serve. Tell everyone to manage what they have on their plates and drink plenty of water"* (rural 38 year old petty trader).

*"I tell them to first of all drink plenty of water before I serve them the food I cooked for our meal"* (urban 38 year old trader).

*"Due to the way things are for I and my husband, I have always put small portions for my children so that whenever food becomes scarce, whatever you put for them they'll be able to manage it"* (rural 32 year old seamstress).

*"If you used to cook 10 cups, you reduce the amount you cook if you notice your food is running out. You have to shape the children's bellies so that they learn not to eat as if there's no tomorrow"* (rural 30 year old housewife).

### 3.3.3. Maternal Buffering

All the participants had at some point in time limited their own intake in order to ensure that their children had food to eat. A mother's nurturing attitude towards her children and women having a greater ability over men to endure hunger were some of the reasons given for employing this strategy

*"Ah, (laughs) that happens frequently. Sometimes I give my husband and the children the last portion of the soup. My children will keep asking me "mummy where is your own food?" and I tell them I have eaten. Sometimes if there's some garri remaining, I add sugar and drink it with water. I have to suppress my hunger to ensure the children eat. Instead of my children going hungry, let me not eat"* (urban 34 year old petty trader).

*"What I do sometimes is to feed my children the available food and go without eating. That's what I do. As a mother you just have to go without food, you can endure it but the children can't"* (urban 28 year old housewife).

*"When the food finishes, it is the woman who is most anxious because the man may not be around. It is the mother who is closer to the home and she is the one the children will be crying to. It breaks my heart whenever I'm in such a situation because when my children are crying because of hunger I feel very sad"* (rural 23 year old auxiliary nurse).

*"...Because the woman can bear it. A woman can bear hunger, a man can't. Men can't bear hunger at all. He would even eat the food kept for the baby"* (urban 34 year old petty trader).

The use of this strategy was however not limited to mothers alone. A few respondents reported that their husbands also sometimes limited their own intake (paternal buffering) to ensure their wives and children ate the little food available.

*"If I see that the food in the house won't be enough for everyone, I'll give the children. He, himself would tell us not to worry about what he would eat, that I and the children should eat the food while he goes without. You see? He might even tell our oldest child to forgo his own meal for me, that they would find something to eat later"* (rural 37 year old trader).

### 3.3.4. Borrowing, Purchasing Food on Credit and Relying on Help from Relative or Friend

Many respondents reported that they borrowed money or purchased food on credit to provide food for their families and relied on informal kinship and non-kinship safety nets.

*"Sometimes food is scarce in my home and there's no money. What I do is I go to a friend for help. When I ask her, she lends me some money which I use to buy some food stuff for us to manage. Whenever I get the money, I pay back. Food isn't always available"* (rural 42 year civil servant).

*Yes, I have been this kind of situation before. There's no food in the house, my husband has no money. So, I have a relation who sells grains, beans, rice and so on. Sometimes I'll buy some on credit from her, when I get the money I pay her"* (urban 29 year secretarial assistant).

*"My husband may not have money at the time...I sell drinks so if I have, I support him with my money. But sometimes business may be slow. We could go to my mother-in-law...to her house and she'll feed us very well for that day"* (rural 28 year old housewife).

Although few respondents reported that they sometimes borrowed food items, a common view during the FGDs and IDIs was that it was shameful to borrow food and saw it as a source of insults and disrespect from people in their communities. Having "too many" children was seen as a precipitant of these insults.

*"If it is borrowing food, I can't do that but I can borrow a little money from my neighbor. I don't think it is right to borrow food"* (rural 32 year old seamstress).

*"I can ask my sister or brothers for money and if they have, they will definitely give me. But to ask an outsider, hmm ... instead of me to ask an outsider, God forbid that I ask an outsider. The first reason is that if you ask the person, he or she will deny having any money even when they do. Secondly even when they say they don't have it, it won't end there. They go*

around gossiping about you saying that your husband is unable to give you money for food” (rural 35 year old housewife).

“I prefer to borrow money than to borrow food. I don’t like telling people to give me [food] because they...may think I don’t work hard enough to provide food for my family. I prefer to grow the food by myself so that I don’t need to borrow from anyone” (rural 37 year old farmer and petty trader).

“...Especially for us that have many children, much more than the number the “White people” said we should have. So if you have more than the right number of children, if you ever try it [to borrow food] in this community, your name is “sorry”. Your name will be dragged in the mud all over town. [Laughing]  
Interviewer: “What is the right number of children to have?”

“Government said we should have three or four, at the most but we had more than that.

Interviewer: “How many children do you have?”

“I have seven” [respondent laughing, amidst exclamations from other participants] (rural 35 year old farmer).

### 3.3.5. Subsistence Farming/Home Gardening and Sale of Items

Some participants reported involvement in home gardening/subsistence farming practices including crop cultivation and poultry farming in addition to their jobs or trading activities to augment the food and income in the home. When there was food and financial insufficiency, crops harvested from garden or farm were either sold to make money or consumed by the household while livestock were more likely to be sold and the money used to purchase food for the home.

“I also have a small farm on the outskirts. I could go there and harvest some cassava and quickly cook a meal” (rural 30 year old housewife).

“I have a poultry house where I raise chickens and turkeys. So I may sell one of them and use the money to buy food for us to eat that day. We continue to manage” (rural 35 year old farmer).

“Well, for me, I sell firewood but it’s my children who carry it in a wheelbarrow to the market for sale. If I harvest pumpkin leaves, they go and sell it. If I pluck tomatoes from my garden, they go and sell or even runner beans, they take it to the market to sell it for me” (rural 32 year old trader).

While the respondents supported selling items to augment the household income, many were against children being sent out to hawk items for sale. Road traffic accidents and injuries, sexual abuse and rape, joining of gangs and learning bad behaviors were some of the untoward results of child hawking identified among the respondents.

“I don’t support giving children items to hawk for sale. I have never been in support of it. Because sometimes when children are sent out...when you go out sometimes you’ll see a child who was knocked down by a motorcycle. On asking what happen, they’ll tell you the child was carrying water [for sale]” (urban 40 year old seamstress).

“For girls, teenage girls, sometimes when they are given items to carry around for sale, they may be

deceived by men. It can bring about unwanted pregnancy, the girl will get pregnant. The men will just calculate how much the total items cost and pay for them. Then they take the items and the girl into the house and have sex with her. It’s not good” (urban 38 year old nursing student).

### 3.4. Intra-household Food Distribution and Gender Relations

Respondents reported differences in the distribution of food between children and adults particularly for highly nutritious animal source foods such as meat and fish. The available meat or fish was preferentially consumed by the husbands while often children and sometimes their mothers eat their meals without.

“If I cooked the soup with meat, I usually put it for my husband to show him the love and respect I have for him. The children may not get any but I usually cook with crayfish” (urban 35 year old housewife).

“It depends on how much meat and fish you used to cook. This will determine how you will share it. I put the meat for my husband and there may not be any for the children. But I’ll give them plenty of food to eat and be satisfied. That’s how we share ours” (rural 32 year old trader).

Views were divided on whose responsibility it was to ensure there was always food available in the household. Some respondents were of the opinion that the responsibility rested solely on the man/husband while others insisted it was a team effort with the husband as the provider and the wife supporting him. All respondents agreed that a woman should have her own source of income in order to be able to care for her children if her husband/partner does not or is unable to provide.

“In my opinion, the responsibility lies on both the husband and wife to provide food for their household. It’s not just the man’s responsibility; it belongs to both the man and the woman. When the man provides that’s very good. When the woman provides that’s also very good. Because a wife may see that things are not going so well for her husband, so she uses what she has to support him” (rural 28 year old hair dresser).

“Before anything else, a woman is supposed to have a job to support the home. Because some men deceive their wives, telling them to stay at home and look after the children. As you stay at home to look after the children, you find that sometimes there wouldn’t be enough money, sometimes there wouldn’t be enough food. So it’s important that every woman has something she does to earn money” (urban 30 year old teacher).

“The Igbo say that “when people urinate together at the same spot, it produces many bubbles” [meaning: there is strength in numbers]. A woman staying at home, not wanting to work is not good because it can lead to insults, quarrels and fighting in the home” (rural 35 year old civil servant).

Respondents cited gender inequalities in household decision-making between men and women and a woman’s lack of autonomy in the use of household income as some of the reasons for food and financial insufficiency in the household. Couple disagreements, verbal and physical abuse were identified as adverse consequences of women

asking their husbands for money for food and other household needs. In some situations, there was a reversal of socially prescribed roles of providing food and money for the households between husband and wife but this did not prevent domestic violence.

*“It’s the man’s responsibility to provide food for his household but the world has turned upside down. Once you have a job, any source of income at all, he decides to completely depend on you and not do any work. You become the breadwinner, providing for your husband and his entire household. When you don’t provide, you become a bad wife and he tells anyone who wants to hear”* (urban 30 year old trader).

*“My husband says that I am just a woman who has to squat to urinate so I can’t tell him what to do with his money”* (rural 28 year old hair dresser).

*“Some men whose wives earn salaries are always on alert. As soon as his wife is paid for the month, he asks her, “How much were you paid?” You tell him. Then he tells you ‘Bring some money for food, I’ll pay you back tomorrow’. Never again! He’ll never give it back to you”* (urban 29 year old secretarial assistant)

*“The men, it’s the men, our husbands who have the bigger problem. I don’t see how a man who wakes up every morning and goes to his job and when he is told there is no pap or kerosene, will begin to look around aimlessly...and start beating his wife”* (rural 35 year old farmer).

*“It’s the man’s responsibility to provide money for food in the home because nowadays men leave everything for the women to do. If he sees that you have a small shop where you have a few things you sell, he completely relaxes and decides not to do anything and waits for you to provide the money. The day you don’t provide, you get beaten”* (urban 36 year old small grocery shop owner).

*“Some are now stay-at-home husbands. He wakes up in the morning and sits all day playing draughts. As soon as it is time for lunch, he comes home to eat and eats even the food kept for the youngest child. If you say anything, he beats you.”* (rural 32 year old petty trader).

### 3.5. Solutions to Improving Household Food Security

The respondents suggested various solutions to improving food and financial sufficiency at household level ranging from what the government could do to help food insecure households to what could be done at community and household levels. Many respondents said the government can do so much more for women by providing jobs and empowering them with financial loans that could be put into farming or trading.

*“...If the government can help us maybe through providing loans for farmers because I like to plant some crops to increase our food for the children. But sometimes I may not have money for farming”* (rural 37 year old farmer and petty trader).

*The government should provide loans for women. It will help women a lot in feeding their families. Those that have a business or trade, like market women, can put the money provided into it. Also farming...poultry business is quite lucrative. Poultry and farm work.*

*There are some [women] who don’t want to farm, who prefer to trade. For example, someone who opens a provision [grocery] store, she can use the loan to stock up her shop. From her sales, she’ll be able to take care of her family. Government should help women. Women suffer a lot. It is too much”* (rural 25 year old petty trader).

They also expressed the desire for help from their communities although some were skeptical about the possibility of this. One mechanism that was unanimously accepted however was the loaning of land for cultivation to indigent members of the community by wealthier members of the community.

*“Our community can help its members by...you know, when it comes to farming, there are people who don’t have land. Those who have land can allow those who don’t have cultivate the land and feed their children. I think this would help”* (rural 37 year old farmer and petty trader)

As individuals, the women emphasized that adequate planning and avoiding wastage in the home could prevent food shortage even when money is not available.

*“For food to be available in the home... So for me, when I find that I have a large amount of money, and when food is more abundant, I buy plenty of food for storage till when food become scarce, when they become expensive. When that time comes we start eating it gradually. I stock up on foods like garri, oil, yams, foods that can be stored for long periods. Then when we enter the planting season when the cost of food gradually increases, you can start eating your stores”* (rural 42 year old civil servant).

*“The household is more important to the woman than the man. If you have plenty of food in your home, don’t cook too much that a lot goes to waste. A woman ought to know how to ration the food in her home. Don’t over-feed your children just because you don’t want people to say you don’t take care of your children. A woman should know how to ration the food in the home because of the current [economic] situation in Nigeria”* (urban 35 year old housewife).

## 4. Discussion

The findings of this study indicate that food insecurity remains a challenge for households in rural and urban communities in Anambra State, Nigeria. Experiences described by the participants show “limited or uncertain availability of food, or limited or uncertain ability to acquire acceptable foods in socially acceptable ways” [3], [4]. The level of household non-grain food expenditures is an indicator of dietary quality [19]. Household dietary diversity was low among the study participants as observed from their responses of consuming mainly rice and cassava-based meals. Even families who reared livestock such poultry were more likely to sell them (rather than consume them within the household) and use the income derived to purchase mostly staple foods. Household dietary diversity has been linked to improved nutrient intake but is significantly dependent on the available income in the household [19]. Dietary diversity is positively related to nutrient adequacy of the diet [20]; a diverse diet provides essential micronutrients and energy

required for proper growth and development especially in children but is out of the reach of many poor populations due to the higher cost of fish, meat, eggs, fruit and vegetables relative to rice and other staple foods [19].

Participants expressed sadness and anxiety when faced with food and financial shortage especially when their children had to go hungry. They described several coping strategies they employed to meet their food and financial needs ranging from reducing the number of meals eaten in a day, reducing the amount of food cooked for meals, limiting portion size, maternal buffering, borrowing money and borrowing food, buying food on credit to subsistence farming/home gardening and selling items. These findings are consistent with results obtained from previous studies [21,22,23,24].

Maternal buffering was the most common strategy mentioned by the participants. All the participants had at some point in time limited her own intake to ensure her children had food to eat. Unfortunately, the use of maternal buffering as a long term measure is likely perpetuate the intergenerational transfer of under-nutrition as undernourished mothers give birth to undernourished babies [25,26,27]. In spite of this, participants expressed their readiness to employ this strategy any time it was required and did not expect their husbands to do the same. Paternal buffering was therefore an exception rather a rule among the study participants and any wife whose husband practiced it was viewed as privileged by the rest of the respondents.

Intra-household differences in allocation of food in developing countries have been described by Quisumbing and Smith [28]. Gender, birth order, age, relationship to the household head are some factors that affect distribution of food and other resources among household members [28]. With regard to gender and age, when food is scarce, intra-household food distribution may favor the men while adversely affecting the dietary intake of not only young children but also their mothers. Age and gender bias in intra-household allocation of non-staple foods in favor of adult males can have detrimental effects on micronutrient intake and the health of children and women [28]. As was found in this study, animal source foods such as meat and fish were preferentially given to the men while the children (and sometimes their mothers) were less likely to partake. In contrast, neither gender nor age bias in food allocation was observed by Pradhan et al [30] in their study among low and middle income households in Delhi, India [30]; their results are similar to those observed in some other countries [31].

The study results indicate that gender relations between husbands and wives could become increasingly negative in the event of household food and financial shortage. Several of the participants reported experiencing marital strain, psychological and even physical abuse from their husbands when requests were made for money. They expressed their frustrations about their lack of financial autonomy which was a reflection their status in their households. Women's status and their lack of autonomy in household decisions regarding allocation and control of resources has been found to be a key determinant of children's nutritional status and educational attainment in many developing countries [28,32].

Food insecure families often resort to borrowing to augment their income and reduce the impact of food and

financial shortage in the home. The seasonality in food availability in terms of market prices forces many families to incur debts or sell of livestock they need to keep [33]. The study participants were forced to rely on borrowing as a coping strategy. Some expressed that it was shameful to borrow and should be used as a last resort. Some on the other hand, did not consider borrowing money as shameful. There was however consensus among the women that borrowing food was more shameful than borrowing money.

Many of the women often sought for help outside the household often in the form of informal kinship and non-kinship/community strategies to obtain food and/or money for their families. Some studies have shown that kinship linkages have weakened significantly over time as a result of the effects of urbanization. They do still exist among indigenous populations and can be a significant source of assistance in times of difficulty [11]. Participants' affirmative responses to relying on help from a relative or friend outside the household indicate that informal kinship and non-kinship safety nets do exist in their communities.

Within the context of the study areas, affordability and therefore access to food may be a larger problem than availability. In other words, food insecurity among poor households in Anambra State may likely be as a result of poor purchasing power rather than lack of food production in the state [33]. Families need to be empowered to establish income-generating activities which should improve food access. The role of the State government towards ameliorating household food insecurity was emphasized in this study but there was general disappointment among the participants in the help available at community level through community leadership such as the town unions and traditional rulers. All the respondents expressed a desire for job opportunities, formal microfinance loans and vocational training programs from the government.

## 5. Conclusion

This study has shown that food insecurity is still a major problem among households in Anambra State, Nigeria. The financial crisis in recent years has contributed to increase in food prices and reduction in the purchasing power of household incomes. Being that majority of the households in this study purchased a large share of their food supply as opposed to growing their own food, the need for households especially low-income ones to diversify their food sources and diets through socially acceptable means cannot over-emphasized. Families should be encouraged and assisted in establishing home/kitchen gardens to augment household food and ensure availability of non-staple foods such as vegetables, eggs, fish and meat even when market prices of such foods are high.

Gender differences derive from the socially constructed relationship between men and women [27] and will require strong and sustained policy action to improve women's status in Anambra State and Nigeria at large. Not only will this increase household income and women's decision-making power, it will increase household food security, the women's nutritional status and that of their children [27].

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The authors have no competing interests.

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