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Meal Management Practices of Low Income Households and Related Conflict Issues in Port Harcourt Metropolis

Okari, I.K.A, & Azunwena, R.N.
Department of Home Economics, Hospitality and Tourism,
Ignatius Ajuru University of Education, Port Harcourt

Abstract

This study focused on meal management practices of low income households in Port Harcourt Metropolis of Rivers State. Specifically, it determined practices related to meal planning considerations; food purchases, and other issues. Meal preparation and service, as well as related conflict issues. Population for the study was made up of all petty traders, artisans and hired-bus drivers (low-income households) in the area of the study. Purposive sampling technique was used to select the sample. A 4-point scale questionnaire was used to collect data. Data were analyzed using mean and standard deviation. Findings of the study include 13 meal planning related considerations of the low income household. There are, among others, financial resources available ($\overline{X}$=3.24), foods that the family members like($\overline{X}$=3.34). Other findings are 13 food purchasing and related practices, including making bulk buying ($\overline{X}$=2.33), buying of non-perishable foods ($\overline{X}$=3.32), and so on. There also 11 practices relating to meal preparation and service, including; ensure that the environment is clean before cooking (X=$\overline{3}$.33), ensure that vegetable are not over-cooked ($\overline{X}$=3.32), and others. There are further 20 conflict and issues relating to the meal management practices, including individual food choices cause disagreement,) ($\overline{X}$=3.63), shortage of rations cause heated arguments ($\overline{X}$=3.22), among others. Five recommendations were made based on the findings.

Keywords: Household, Meal, Management, Conflict, Low-income, Practices

Introduction

Food is any substance consumed to provide nutritional support for an organism. It is usually of plant or animal origin, and contains essential nutrients, such as carbohydrates, fats, proteins, vitamins, and minerals. Food is of great importance to man. Food is a basic human need. Bashiru (2018) observed that food is so important that individuals and families must give it serious attention. Its importance makes meal management a major household concern. This concern is more of a challenged to the low-income households.

A low-income household is one whose income is low, relative to other households of the same size (Winton, 2003; Ahmed, 2018). A household is

commonly classified as low-income, and can be eligible for certain types of assistance, if its income is less than twice the poverty threshold. Food-insecure and low-income people are subject to the same often challenging influences as other populations in trying to consume a healthful diet and maintain a healthful weight (e.g., more sedentary lifestyles, increased portion sizes) (Edin, 2013; Gable & Lutz, 2011). But those who are food-insecure or low-income also face unique challenges in adopting and maintaining healthful behaviors, as described below.

When available, healthy food may be more expensive in terms of the monetary cost as well as (for perishable items) the potential for waste, whereas refined grains, added sugars, and fats are generally inexpensive, palatable, and readily available in low-income communities (Aggarwal, 2012; Darmon & Drewnowski, 2015). Households with limited resources to buy enough food often try to stretch their food budgets by purchasing cheap, energy-dense foods that are filling – that is, they try to maximize their calories per dollar in order to stave off hunger (Edin, 2013). While less expensive, energy-dense foods typically have lower nutritional quality and, because of overconsumption of calories, have been linked to obesity (Kant &Graubard, 2005; Perez-Escamilla, 2012).

Meal management is a process of attaining family food security for proper family functioning. It is a broad process that involves the proper oversight of food selection, preparation, presentation, and preservation (Mmadu, 2016) to ensure satisfaction for members of the family. Family has a great impact on the foods people eat and how they eat them (McBride, Brotherson, Joanning, Whiddon and Demmitt, 2003). Family meal can also influence family functioning, thereby affecting family relationships (Ibrahim, 2019). Hence, researchers have identified effective meal management as a determinant positive family cohesion (e.g. Ibrahim &Mobolaji, 2017; Ibrahim, 2019). Whether for the simplest family meal or for an elaborate dinner, meal management involves the consideration of a number of factors: adequacy and availability of foods, traditions and customs, economic resources, personal likes and dislikes, suitable combinations, seasonability, staying quality of foods, ease of food preparation and meal patterns (Bashiru &Ubah, 2018; Gbenga, 2018; Ibrahim & Mobolaji, 2017).

Poor meal management can result in obstructed family relationships, leading to conflicts in the home. For example, *Buchi* (2018) noted that proper food management involves making sure that food that is past its prime is not served in the home in order to preserve the health wellbeing of members of the family. In another account, Aldair (2019) reported family conflicts or instabilities resulting from poor food management. The management of household foods involves the prevention of food wastage, proper handling, strict buying rules and prevention of spoilage through proper preservation techniques. Abagana, Azizza and Tobiasi (2018) observed tensions in homes which are unable to

provide adequate meals for their members.

Foods often play important roles in family traditions and special occasions. Changing lifestyles such as high standard of living combined with harsh economic circumstances characterize modern cities such as the Port Harcourt metropolis. These circumstances have had a tremendous impact on family eating or meal patterns thereby giving concerns about how they affect family relations. Lifestyle is the way one usually lives. Years ago, many families lived on farms, and their lifestyles focused on daily tasks around the farms. Families tended to be large, and children were viewed as economic assets because they could help with farm tasks (Duru, 2012; Ahmed, 2018). Family eating patterns at that time often involved eating three meals together each day (Winton, 2003). Family members used mealtime as a chance to share the day's events and discuss problems. Many of the foods families ate were produced right on the farm. Mothers generally prepared the family meals. Dishes were hearty to provide family members with the fuel they needed to do physical farm work. In contemporary time, few families live on farms. There are more dual-income families, in which both parents earn a pay check (Litchfield, Brotherson, Oakland and McClintic, 2005).

In Port Harcourt, as in many urban areas in Nigeria, members of low-income households face high levels of stress and poor mental health (e.g., anxiety, depression) due to the financial and emotional pressures of food insecurity, low-wage work, lack of access to health care, inadequate transportation, poor housing, neighborhood violence, and other factors (Buchi, 2018; Aldair, 2019). While food insecurity remains a major challenge in social milieus such as Port Harcourt metropolis, food, which is a basic need of man, is at the center of concern for many households. Despite the struggle to have access to quality food in the appropriate quantity, the low income families are also confronted with serious meal management problems which usually culminate in strained family functioning usually resulting in conflicts in the home. More so, despite the poor access to quality food by the low income households in Port Harcourt, Rivers State, food crisis remains a major challenge and determinant of peaceful coexistence amongst the households. While a number of recent studies find associations between food insecurity and stress, depression, psychological distress, and other mental disorders; as well as focusing on the importance of food; ways to manage meals for the optimum family functioning remain a gap in literature. This study was aimed to fill this lacuna.

Purpose of the Study

This study focused on meal management practices of low income households and the conflict issues related to such practices in Port Harcourt metropolis of Rivers State. Specifically, the study determined the following meal management practices of low income households:

1. meal planning (points to consider);
2. food purchases, and other issues.

3. meal preparation and service.
4. it also determined conflict issues meal management practices of the low-income households.

Research Questions

The study was guided by the following research questions:

What are the low-income households' meal management practices related to:

1. meal planning?
2. food purchasing, and other issues?
3. meal preparation and service?
4. what are the conflict issues related to the meal management practices of the low-income households?

Methodology

***Design of the Study*:** The survey design was adopted for the study.

***Area of the Study*:** The study was carried out in the Port Harcourt Metropolis; has an estimated population of over one million according to the United Nations Development Programme (UNDP, 2018). This area includes the main local government areas of Port Harcourt – Obio/Akpor and Port Harcourt Municipal. The metropolitan nature and harsh economic circumstances which confront of the inhabitants make the area ideal for the study.

Population of the study: The population for the study was all petty traders, artisans and hired-bus drivers within the Port Harcourt metropolis. Petty traders include small store owners on the street, foodstuffs sellers food peddlers; while the artisans include smaller tailor shop owners, vulcanizes hairdressers and barbers. The last group are the hired-bus drivers who either run on higher purchase agreement or daily returns. These groups of persons depend on the minimal daily incomes that accrue to them in order to care for the families. This is the reason they were chosen for this study.

Sample for the Study: The sample for the study was 120 petty traders, artisans and hired-bus drivers within the Port Harcourt metropolis. The simple random sampling technique was used to select 10 towns namely: Oroworukwo, Rumuobiakani, Borokiri, Marine Base, D'Line, Rumuokwuta, Rumuola, Amadi-Ama, GRA and Choba from the 32 towns that constitute the Port Harcourt Metropolis. This was done to provide equal opportunities for all the towns to participate in the study. A ballot system was used in which 10 towns were picked at random. Subsequently, the purposive random sampling technique was used to select 4petty traders, 4 artisans and 4 hired-bus drivers from each of the 10 towns within the Port Harcourt Metropolis. The main goal of this sampling technique was to focus on the particular characteristics of the populations of interest.

Instrument for Data Collection: A structured questionnaire form was used to collect data. The questionnaire contained 71 items and was designed on a 4-point rating scale of Strongly Agree (SA) – 4; Agree (S) – 3; Disagree (D) – 2; and Strongly Disagree (SD) – 1. The questionnaire developed from the research and questions and review. The questionnaire was validated by three Home Economics lecturers. The reliability of the research instrument was established using Cronbach Alpha

method. A trial test was carried out using 10 *keke* drivers and 15 market women from Owerri in Imo State. This area has similarities with the study area. This population was not involved in the main study. Date collected were subjected to Cronbach Alpha statistical reliability test to determine the reliability index of the instrument. The overall reliability index was 0.87[a] was appropriate for the study.

Data Collection Method: One hundred and twenty copies of the questionnaire were distributed by hand and a hundred percent retrieval of the questionnaires; this was because they were administered by hand and the researcher waited to retrieve them.

Data Analysis Technique: Mean and standard deviation were used to analyze the data.

The cut-off score was 2.50 items with mean scores equal and above ($\overline{X} \geq 2.50$) were regarded as agreed, while items with mean below ($\overline{X} \leq 2.50$) were regarded as disagreed. All statistical computations were done using the Statistical Package for Social Science (SPSS) 20.0.

Results

The results of the study were presented in the following the Tables 1-4.

Meal Planning Practices of Low-income Households

Table 1: Mean Responses and Standard Deviation on meal planning considerations of low-income households

S/N	Meal planning considerations	$\overline{X}$	SD	Remark
	In meal planning low-income households consider:			
1	Children and their food needs	2.42	0.83	D
2	Members and the feeding	2.49	0.81	D
3	Foods that the family members like.	3.34	0.94	A
4	Financial resources available	3.24	0.91	A
5	Pregnant women and their special needs	2.44	0.83	D
6	Quality and quantity of the food	2.38	0.82	D
7	Number of person in the home	2.89	0.91	A
8	How long meal can last	2.71	0.88	A
9	Age of the members	2.17	0.89	D
10	Location of the home (environmental issues) rural/urban	3.10	0.99	A
11	Family food and feeding culture	2.22	0.83	D
12	Keeping family meal time	2.18	0.96	D
13	Identify persons of concern	2.09	0.79	D
14	Keeping members informed of any changes in ingredients	2.15	0.88	D
15	Keeping members informed about changes in rations	2.22	0.82	D
16	Informing members of any challenges on family feeding	2.44	0.97	D
	Grand Mean	**2.53**	**0.80**	

Keys: $\overline{X}$ = ***mean***; *SD = Standard Deviation;* ***A=Agreed; D = Disagreed; N= 120***

Table 1 shows the mean ratings and standard deviation on low income households' practices related to meal planning considerations. These also represent the considerations that guide them in meal planning. The data reveal that the respondents agreed with items 3, 4, 7, 8 and 10 because these items had grand mean scores of 2.5 and above ($\overline{X}$ ≥2.50) which is the cut-off mark, while other items were disagreed with because they had mean scores lower than the cut-off point for decision making. The standard deviation ranged between 0.79 and 0.99. The Table also shows that the highest mean score was 3.34 (item 3) while the lowest mean score was 2.09 (item 13).

Low-income Households' Practices Related to Food Purchasing and Other Issues

Table 2: Mean Responses and Standard Deviation on Low-income Households' Practices Related to Food Purchasing and Other Issues

S/N	Food purchasing practices and related issues	$\overline{X}$	SD	Remark
1	Making bulk buying	2.33	0.86	D
2	Buying of non-perishable foods	3.32	0.93	A
3	Avoiding purchase of expired foods	3.22	0.92	A
4	Buying fish instead of meat when there is few income	3.23	0.92	A
5	Buying dried vegetables (e.g okra) for use on emergencies	3.33	0.93	A
6	Making large quantity of soups to store in the fridge	3.45	0.95	A
7	Spending time in the processing process	2.01	0.89	A
8	Washing foodstuffs thoroughly	2.91	0.91	A
9	Cleaning the environment before processing	2.88	0.88	A
10	Minimizing quantity for cooking	3.01	0.99	A
11	Avoiding storing food for too long in the refrigerator	2.18	0.79	D
12	Avoiding serving cold foods	2.09	0.98	D
13	Cooking without vegetables when they are expensive	3.62	0.97	A
14	Warming soups constantly to avoid spoilage	3.71	0.98	A
15	Covering stored foodstuffs	3.88	1.01	A
	Grand Mean	**2.80**	**1.37**	**A**

Keys**: $\overline{X}$ = **mean**; SD = Standard Deviation; **A=Agreed; D = Disagreed; N= 120

Table 2 shows the mean rating and standard deviation on the low income households' practices related to food purchases, and related issues. The data reveal that the responses to items 2-6, 8-10, 13-15 were agreed because they had grand mean scores of 2.5 and above ($\overline{X}$ ≥ 2.5) while item 1 has "disagreed" because it has a mean ($\overline{X}$ ≤2.5) score lower than the cut-off mark. The standard deviation ranged between 0.79 and 101. The Table shows that the highest mean score was 3.88 (item 15) while the lowest mean score was 2.01 (item 7).

Practices Related meal Preparation and Service

Table 3: Mean Responses and Standard Deviation on the Income Households' Practices Related To Meal Preparation and Service

S/N	Practices in Meal Preparation and Services are:	$\overline{X}$	SD	Remark
1	ensure that the environment is clean before cooking	3.33	0.93	A
2	ensure that vegetables are not over-cooked	3.32	0.93	A
3	reduce excessive ingredients	3.45	0.95	A
4	avoid talking while cooking	2.22	0.85	D
5	restrict crowd in the kitchen	3.23	0.91	A
6	serve foods in enticing forms	2.20	0.84	D
7	avoid excess rations	3.30	0.92	A
8	serve food in the presence of visitors	2.20	0.87	D
9	ensure the family eats together	2.10	0.90	D
10	allow eating while cooking	3.71	0.99	A
11	eat with children	3.21	0.95	A
12	minimize ingredients that can cause low appetite	2.87	0.81	A
13	minimize salt for older members	2.91	0.86	A
14	wait for spouse before eating	2.08	0.88	D
15	encourage children on eat vegetables	2.01	0.97	D
16	include fruit in diets	1.26	0.93	D
17	ensure cutleries rinsed before service	2.61	0.79	A
18	clean dishes immediately after a meal	2.44	0.76	D
19	encourage adequate water consumption	3.17	0.97	A
20	avoid talking while eating	2.18	0.86	D
	Grand Mean	**2.70**	**0.80**	**A**

Keys**: $\overline{X}$ = **mean**; SD = Standard Deviation; **A=Agreed; D = Disagreed; N= 120

Table 3 shows the means scores and standard deviation of respondents on the low income households practices related to meal preparation and service. The data reveal that the responses to items 1,3,5,7,10-13,17 and 19 were agreed with because they had mean scores 2.5 and above which was the cut-off point while other items (4,6,8,9,14,15,16,18,and 20) were disagreed with because they had grand mean scores of less than 2.5. The standard deviation ranged between 0.97. The Table also shows that the highest mean score was 3.71 (item 10) while the lowest mean score was 1.26 (item 16)

Conflict Issues Relating to Meal Management Practices of Low-income Households

Table 4: Mean Responses and Standard Deviation Conflict Issues Relating to Meal Management Practices of Low-income Households

S/N	Conflict Issues Relating to Meal Management Practices of Low-income Households	$\overline{X}$	SD	Remark
1	individual food choices cause disagreement	3.63	0.99	A
2	storage of rations cause heated arguments	3.22	0.93	A
3	cooking without vegetables can be resisted	3.41	0.95	A
4	serving food late causes conflicts in the home	3.28	0.93	A
5	allowing foods to spoil cause conflicts in the home	3.23	0.93	A
6	poor management of food resources cause conflicts	3.29	0.94	A
7	serving the presence of visitors	3.88	1.28	A
8	serving tasteless foods cause disagreements in the home	3.28	0.93	A
9	poor service causes problem from households	3.01	0.90	A
10	excessive buying causes heated arguments	2.61	0.72	A
11	inability to address specific groups in the planning process causes frictions	2.82	0.85	A
12	serving cold food causes arguments	2.79	0.97	A
13	food poisoning causes conflicts among members	3.19	1.05	A
14	allowing food to waste is a source of crisis between couple	2.66	1.07	A
15	cooking/processing meals in a dirty environment breeds conflicts	3.33	0.94	A
16	spending on perishable foods causes frictions	3.26	0.88	A
17	lack of communication in the planning process causes arguments	2.90	1.08	A
18	conflict will erupt from under-fed members	3.22	0.81	A
19	cooking late is resented in the home	2.898	0.93	A
20	repeating meals consecutively causes conflicts	2.52	0.87	A
	Grand Mean	**3.12**	**1.00**	**A**

Keys**: $\overline{X}$ = **mean**; SD = Standard Deviation; **A=Agreed; N= 120

Table 4 shows the mean scores and standard deviation of respondents on the conflict issues in the various low-income households' practices. The data reveal that the respondents agreed with all the items (1-20) because they had grand mean scores of 2.5 and above ($\overline{X}$ ≥ 2.5). The standard deviation ranged between 0.72 and 1.28. The Table also shows that the highest mean score was 3.88 (item 7) while the lowest score was 2.52 (item 20).

Discussion of the Findings

The findings on the low income households' practices related to meal planning revealed that the respondents disagreed with the following: consider children in meal planning; the sick is considered in meal planning; pregnant women are considered in planning meals; age of the members; family food culture; keeping to time for meal; identify persons of concern; inform members on changes in ingredients;

inform members on rations; explain challenges to members; and the quality of the food is put above the quantity; while the following were agreed with: consideration for foods that the family like more; financial resources available; the location of the home. These findings are in consonance with Kalwij (2004) who noted that a major challenge for poor families is the inability to make provisions for vulnerable populations such as children, pregnant and lactating women. Ibrahim (2019) and Bashiru and Ubah (2018) also added that low incomes are constantly confronted with inability to make choices when it comes to foods.

Making special provisions for special groups in a family's meal plans requires adequate resources. The availability of resources to the family has also been found as a major determinant of effective planning (Aldair, 2019). Hence, is arguable that low income families undermine the advantages in adequate meal planning due to weak access to financial resources. However, low income households have limited access to financial resources (Houthakker, 2007) hence; they are unable to prepare special provisions for special groups in the midst of inadequate resources. These findings revealed the helplessness of specific members of the family in meal planning, and this may have tremendous implications for family cohesion.

From the research question on the low income households' practices related to food purchases, processing, preservation and storage, the findings revealed that respondents agreed with following: buying of non-perishable foods; making large quantity of soups to store in the fridge; avoiding purchase of expired foods; buying fish instead of meat when there is few income; buy dried vegetables (e.g okra) for use on emergencies; cook without vegetables when they expensive; warm soups constantly to avoid spoilage; and store cover foodstuffs when not cooking. These findings are in agreement with Aggarwal's study (2012) which noted that healthy food may be more expensive in terms of the monetary cost as well as (for perishable items) the potential for waste, whereas refined grains, added sugars, and fats are generally inexpensive, palatable, and readily available in low-income communities (Aggarwal, 2012; Darmon&Drewnowski, 2015).

Households with limited resources to buy enough food often try to stretch their food budgets by purchasing cheap, energy-dense foods that are filling – that is, they try to maximize their calories in order to stave off hunger (Edin, 2013). While less expensive, energy-dense foods typically have lower nutritional quality and, because of overconsumption of calories, have been linked to obesity (Kant &Graubard, 2005). However, the respondents disagreed with bulk buying which requires more money; avoid serving cold foods, and avoid storing foods for too long in the refrigerator. These findings are indicators that the low incomes families struggle to effectively manage limited resources. Gbenga (2018) and Aldair (2019) had opined that low income families in urban

centers were more affected by economic disparities.

From the research question on the low income households' practices related to meal preparation and service, the findings revealed that the respondents agreed with the following: ensure that the environment is clean before cooking; ensure that vegetable are not over-cooked: reduce excessive ingredients; avoid excess rations; allow eating while cooking; eat with children; minimize ingredients that can cause low appetite; minimize salt for older members; ensure cutleries are rinsed before service; and, encourage adequate water consumption. The results showed that most low-income meal preparers are aware of some but not all key relationships between diet and health; hence the observance of important food safety principles reported in the study. The results are further substantiated by the notion of Abagana *et al* (2018) who noted that families benefit from existing nutrition education programmes. One of the general knowledge available to many populations irrespective of socio-economic status is how to ensure vegetables are not overcooked. This ensures the preservation of the nutrients.

Meanwhile, the results revealed that the respondents disagreed with the following items: avoid talking while cooking; serve foods in enticing forms; ensure the family eats together; clean dishes immediately after a meal; include fruits in diets; encourage children to eat vegetables; wait for spouse before eating. These results are similar to the reports of Mmadu (2016) that at mealtime, families naturally face the conflicting priorities of time, taste, cost, and nutrition, and they often make decisions that undervalue nutrition. The visual presentation of foods is often considered by chefs at many different stages of food preparation, from the manner of tying or sewing meats, to the type of cut used in chopping and slicing meats or vegetables, to the style of mold used in a poured dish (Buchi, 2018). The results also showed low vegetable and fruits consumption for low income families which show the absence of essential nutrients such as vitamins and minerals. Ibrahim (2019) had opined that fruits and vegetable are significant for optimum health.

Lastly, from the research question on the conflict issues in the various low income households' practices, the findings revealed the respondents agreed with all the items as follows: individual food choices cause disagreement; shortage of rations cause heated arguments; cooking without vegetables can be resisted; serving food late causes conflicts; allowing foods to spoil; poor management of food resources cause conflicts: serving in the presence of visitors; serving tasteless foods cause disagreements in the home; and poor service causes problem from husbands. Other results include: excessive buying causes heated arguments; inability to address specific groups in the planning process causes frictions; serving cold foods causes arguments; food poisoning causes conflicts amongst members; allowing food to waste is a source of crisis between couple; cooking/processing meals in a dirty environment breeds conflicts; spending on perishable foods

is causes frictions; lack of communication in the planning process causes arguments; conflict will erupt from under-fed members; cooking late is resented in the home, and, repeating meals consecutively causes conflicts.

These findings are in agreement with the assertions of Mmadu (2016) and Ibrahim (2019) that family expenditures and resource management patterns are significant to maintain family cohesion, especially between husband and wife, and amongst members of the family. The implications of the findings are that the patterns of food management can cause disagreements among family members when members do not apply appropriate food management practices, especially among low income families. For example, improper food rationing, consumption of foods that are stale or expired can cause health problems which may result conflicts between couples (Gbenga, 2018). A man can pick up a quarrel with wife over the decision to allow children eat wrong foods that can subject their health to avoidable sicknesses. Also, when any member of the family is sick (especially children), the whole family may be in disarray (Charles&Danziger, 2006b). More so, eating out is a major factor for quarrels between couples. Women generally dislike their husbands eating out, as this is seen as being risky to the relationship, or could cause harm on the family resources. These findings indicate high awareness on how food can cause conflicts in the home.

Conclusion

This study has shown that there is a strong relationship between family meal management and family peaceful living amongst members of the family. Specifically, the study showed that low income household practices in meal management planning, food purchases, processing, preservation and storage; meal preparation and service practices are affected by their income status. The study validated earlier claims that family cohesion is dependent on families' ability to manage limited resources, as well as the absence of resources. The study further revealed helplessness of specific members of the family in meal planning, and this may have tremendous implications for family cohesion. More so, it is significant to note that this study has shown that vulnerable populations in low income households may be endangered by poor access to adequate nutrition, resulting from poor meal management practices.

Recommendations

Based on the findings of the study, the following recommendations were made:

1. Low income households should be enlightened on the significance of prioritizing the nutrition of vulnerable populations such as pregnant women and the sick in their meal plans. This can be done by focusing on low-cost nutrient-rich foods such as vegetables.
2. Low income families should be enlightened on the need for food

safety especially during food preparation.

3. Finance education should be encouraged for families through formal and informal means such as community meetings.
4. Family communication should be encouraged to resolve avoidable conflict issues regarding food in the home.
5. Meal managers should be sensitized by interest groups such as religious organizations, community groups and other stakeholders on methods of food presentation to avoid tension in the family.

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