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Research Article

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Topic Exploring the Utilization of Food Items Used for Infant Complementary Feeding of Mothers with Children (6-23) Months in Nsukka Local Government Area of Enugu State Nigeria: A Focus Discussion by Dr. Chukwuemeka Ngozi Elizabeth & Prof. Pauline Ngozi Ikwuegbu

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1. Introduction

In developing countries like Nigeria, malnutrition is still a serious health problem affecting infants and young children (black et al. 2013, stuiter et al. 2015 & n 2021). Nigeria has the highest level of malnutrition in children after India (UNICEF 2011, in Nnam 2013 & Chukwuemeka, 2021). Globally and in sub sahara Africa 144 million children under 5 were estimated to be stunted, 47 million were estimated to be wasted and 38.3 million were overweight or obese (UNICEF 2013) in Chukwuemeka 2021). (WHO 2019 in Chukwuemeka 2021) stated that 44% of infants 0-6 months are exclusively breast fed, few of them received nutritionally adequate and safe complementary foods. Less of them from 6-23 months meet the criteria of dietary diversity of feeding frequency that are appropriate for their age. In developing countries like Nigeria, the traditional complementary foods are grossly inadequate, mainly cereals, starch and tubers among others, mode of operation not properly optimized to provide the required nutrients. The consumption of these starchy gruels that are inadequate in protein and other essential micronutrients are the major cause of nutrient related illness and retarded growth in infants. National nutrition and health survey 2015 in chukwuemeka, 2021). Most Nigeria populace cannot afford the Nigerian complementary foods. FAO/WHO (2015) in Chukwuemeka, (2021) noted that 41% of Nigeria population lives below poverty level and so do not have purchasing power therefore, infants are fed with carbohydrate gruels common as (akamu, ogi or pap), that is not nutritious and also watery therefore cannot meet the requirement of fast growing infant (Chukwuemeka, 2021). Quality complementary foods should be adequate in protein, energy and micro nutrients, no artificial colors, flavors etc. it must be cutmally acceptable in health, disease conditions free and locally available. WHO/ UNICEF (2006) in Chukwuemeka, (2021) stated that at six months infants exhibit certain physiological activities that shows readiness for complementary food. Tarry introduction of complementary food leads to infant morbidity and mortality; because of reduced ingestion of protective factors in milk. Rural communities in developing countries like Nigeria do not incorporate fruits and vegetables in the food items they used in complementary food production hence many of them suffer from micro nutrient malnutrition. Food supplementation during the production of complementary food for feeding infants is one of the ways to address and curb out these micronutrient malnutrition (habbok, bult and saadeh, 2003 in Chukwuemeka, 2021).

In effect of the above assertions, this paper aims at:

- Explore the food items used for infant complementary food in Nsukka local government area through focus group discussion.
- Explore the techniques used by the women of child bearing age that has children (6-23)months for the production of complementary food.
- Discover the time for the introduction of complementary food by the mothers.

2. Area of Study

The study was carried out in Nsukka Local Government Area of Enugu State Nigeria. It has eleven (11) towns, it has an area of 1.810km2 and a population of 309,633 (National population 2006). It is a university town that is located in a hilly and green site.

3. Study Design

A study design was used through focus group discussion to find out the food items produced by the towns, how they process the food items and their feeding practices.

4. Pilot Study

A pilot study was carried out through focus group discussion in the study area. Three towns were selected by simple random sampling by balloting without replacement for the selection of the three towns; form the three towns selected, another balloting without replacement was used to select a village from each of the town for focus group discussion.

5. Preliminary Visit

A preliminary visit was carried out in the selected villages. The village leaders in the selected was visited during the preliminary visit to explain the purpose of the focus group discussion and obtain their consent before the commencement of the study. The village leaders agreed to gather the women of child bearing age that has children 6-23 months. The gathering was done on the day, date and time agreed with each of the village leaders. A questioner designed was used for the focus group discussion (FGD), Four focus groups were formed, the participants agreed with a verbal consent or by signing an informed consent form before the FGD e Kruger (1994), Kruger f Casey, (2000) in chukwuemeka, 2021.

A focus ground for the focus group discussions were formed. It includes:

• A direct discussion with a minimum of six to ten women and filing of the questioner.

• The researcher directed to the discussion by asking them questions that stimulate conversations.

• All the respondents were allowed to talk in their dialects and also in English, they filled questioner given to them and the research assistant helps the illiterate ones. A video tape is then taken during the session to help facilitate the analysis of the discussion.

6. Data Analysis

Data was analyzed using statistical analysis. Ethical clearance was obtained from health research ethics committee at university of Nigeria teaching hospital (UNTA) ituku-ozala in Enugu state, Nigeria, with number NHREC/05/01/2008-FWA00002458-IRB00002323.

7. Result

➢ **Table 1:**

The shows outcome of the focus group (FGD) (66.7%) of the women of child bearing age that has children 6-23years used yellow maize for complementary food (9.2%) used white maize while other form of cereal like sorghum were minimal used (4.0%) and (2.7%) respectively. Legumes were not used by majority of them (5.3%) used soyabean, (2.7%) incorporate termite especially during the rainy session, (2.7%) add pumpkin leaf and (6.7%) gave pawpaw.

➢ **Table 2:**

Presents the processing techniques used by the women. Soaking/ fermentation majority(80%), wet mill and sieve before preparing the gruel. A handful(7.7%) soak, sundry, mill and sieve thereby having complete flour (complementary food) (CFCF) while (9.3%) soak, roast, mill and sieve the same(CFCF). The (FCD) showed that they used soaking and wet milling as their source of processing.

➢ **Table 3:**

Presents the age of the introduction of complementary food. Majority of the women (53.3%) started to introduce complementary food from three months a handful (13.3%) starts from one while (5.3%) start from six months.

8. Discussion

The results, of the focus group discussion shows that yellow maize is more acceptable than other cereals. This is mightily because of the woman being familiar with it than other brands. Moreover the color might be the attraction. Kaul, kain and olakin (2019) in chukwuemeka (2021) to have identified the generality of people preferred yellow meals than other cereals maybe because of the egg yolk color which signifies. B- carotene; that is converted to vitamin A. B- carotene in plants that have pleasant yellow color is a major source of vitamin A (Nagarajaiah et al. 2018) consumption of foods containing b carotene helps in the prevention of eye disorders, cancer, skin diseases and vitamin A deficiency (VAI) Tang Andersen Hendricks Krebs(2019), the use of yellow maize in production of (CF) can the nutritional quality. The women applied soaking/fermenting, sun drying, roasting and milling technique in processing the food items for complementary food. Fermented cereal-baked gruels with poor nutritional value form a major component of the diet of infants during the transition phase of childhood. Soaking and fermentation is an aged old technology whereby microorganisms help in improving the quality attributes of foods making it easily digested, palatable and beneficial to the gastrointestinal tract of the customer. This functional microorganism called probiotics when present as life cultures in foods, helps protect the gut linen and improve digestion and nutrient availability. Yellow maize when subjected to some degree of processing can be supplemented with amino acid- rich food sources for protein and minerals suitable for complementary food blend. The processing method of roasting is in line with the national academy of science (NCS) 2012 in chukwuemeka (2021) stated that drying, roasting and milling are effective preservation techniques in complementary food products, they help to enhance shelf life of cereal products if they are applied. Majority of women (53.3%) in the study area introduced complementary foods within three months after birth. This early introduction of (CF) leads to retarded growth. Przyrembel (2012) stated that early introduction of complementary foods leads to retarded growth, it can also lead to atopic disease (WHO 2012).

Food items identified in the community used for complementary foods in the LGA	Frequency Yes F (%)	Percentage No F (%)	Total F (%)
Yellow maize	50 (66.7)	25 (33.3)	75 (100.0)
White maize	7 (9.2)	68 (90.7)	75 (100.0)
Red sorghum	3 (4.0)	72 (96.0)	75 (100.0)
White sorghum	2 (2.7)	73 (97.3)	75 (100.0)
Millet	0 (0.0)	75 (100.0)	75 (100.0)
Groundnut	0 (0.0)	75 (100.0)	75 (100.0)
Soybean	4 (5.3)	71 (94.7)	75 (100.0)
Beans	0 (0.0)	75 (100)	75 (100.0)
Pawpaw	5 (6.7)	70 (93.3)	75 (100.0)
Orange	0 (0.0)	75 (100.0)	75 (100.0)
Guava	0 (0.0)	75 (100.0)	75 (100.0)
Avocado pear	0 (0.0)	75 (100.0)	75 (100.0)
Cray fish	0 (0.0)	75 (100.0)	75 (100.0)
Grasshopper	0 (0.0)	75 (100.0)	75 (100.0)
Rat	0 (0.0)	75 (100.0)	75 (100.0)
Lizard	0 (0.0)	75 (100.0)	75 (100.0)
Red meat	0 (0.0)	75 (100.0)	75 (100.0)
Termite	2 (2.7)	73 (97.3)	75 (100.0)
Spinach	0 (0.0)	75 (100.0)	75 (100.0)
Pumpkin leaf	2 (2.7)	73 (97.3)	75 (100.0)
Garden egg leaf	0 (0.0)	75 (100.0)	75 (100.0)
Yam	0 (0.0)	75 (100.0)	75 (100.0)
Rice	0 (0.0)	75 (100.0)	75 (100.0)
Garri	0 (0.0)	75 (100.0)	75 (100.0)

Table 1: The outcome of the focus group discussion on the utilization of identification of foods for complementary food by women of child bearing age(18-40 years) that has children (6-23)months in Nsukka L.G.A.

Processing Technique for complementary Food.	Frequency Yes F (%)	Percentage Yes F (%)	Total F (%)
Soaked, wet milled and sieved	60 (80)	15 (20)	75 (100)
Soaked, sun dried; milled and sieved	8 (10.7)	67 (89.3)	75 (100)
Soaked, roasted; milled and sieved	7 (9.3)	68 (90.7)	75 (100)

Table 2: Technique used by women of child bearing age that has children (6-23)months for the production of complementary food in Nsukka L.G.A

Processing Technique for complementary Food.	Frequency Yes F (%)	Percentage Yes F (%)	Total F (%)
Soaked, wet milled and sieved	60 (80)	15 (20)	75 (100)
Soaked, sun dried; milled and sieved	8 (10.7)	67 (89.3)	75 (100)
Soaked, roasted; milled and sieved	7 (9.3)	68 (90.7)	75 (100)

Table 3: Time of the introduction of complementary food by the respondents

9. Investigating Factors Influencing Complementary Feeding Practice of Mothers with Infants 6-23months In Nsukka L.G.A in Enugu State Nigeria

Complementary feeding is the transition from breast feeding to other foods. It is the foods given to an infant alongside with breast milk. During the period of complementary feeding, a baby gradually becomes accustomed to eating family foods. Complementary feeding is not a single event but cumulative process that begins at the age of 6 months and extended to the age of 2 years. (WHO, 2006). Nutrition in early life has the greatest influence on infant growth. Development and survival (michaelsen, 2015 in Chukwuemeka, 2021). Inappropriate good nutrition in an infant's early life is the major causes of malnutrition. Malnutrition is diverse and inter-related yet inadequate dietary intake during the complementary feeding period is considered to be major contributing factor in malnutrition in infants. In developing countries like Nigeria, malnutrition is a serious health problem affecting infants and young children. Nigeria has the second highest level of malnutrition in children after India. (UNICEF, 2011 in chukwuemeka, 2021). The first two years of life provides an opportunity for the infant to achieve maximum growth potential but at the same time critical periods for growth faltering if the nutritional needs are not attainable. Ezziati & fawzi (2015) in Chukwuemeka, (2021). To attain these nutritional requirements, complementary foods need to contain all the essential nutrients that are appropriate to facilitate optimal growth, development and feeding frequencies.

10. In Nsukka L.G.A of Enugu State, The Adherence of Children 6-23 Months of Age to these Recommended Indicators Varies

In Nigeria, infants/children constitute 45% of the total population, the country's infant mortality rate of 114 per 1000 live births is among the highest in sub-sahara Africa and the mortality among children under five years of age is as high as 300 per 1000 in some parts of the country, they also reported that malnutrition is contributing more than half (53%) of under five deaths in Nigeria. WHO, (2010) in Chukwuemeka, (2021) went on to report that 19% of 10.8 million children's death globally in a year can be attributed to iodine, iron, vitamin A and zinc deficiencies. The prevalence of under-five malnutrition was 27.2% in 2002, 25.7% in 2004, 26.7% underweight in 2008 and 41.0% stunting in 2008. World bank (2008) in Chukwuemeka, (2021).

Optimal breast feeding cannot ward off malnutrition if the child is not fed with adequate complementary food and adequate feeding practices. Rural communities in developed countries, Nigeria do not incorporate fruits and vegetables during complementary feeding practices. Hence, the cause of micro nutrient malnutrition, food supplementation is one of the ways to address this micro malnutrition Chukwuemeka (2021). Traditional complementary foods can be supplemented with legumes animal source food ASF, fruits and leaf vegetables to improve their nutrient content and then followed by appropriate complementary practices.

The above components if placed in place properly can ward off micro nutrient malnutrition in infants 6-23 months. The main objective of this work is to use a well-tailored investigation to find complementary feeding practices among women of child bearing age with infants 6-23 months through investigation of individuals using interview method.

11. Study Area

The study was carried out in Nsukka L.G.A of Enugu state in the south east geo political zone in Nigeria. It has an area of 1.810km2, national population (2006).

12. Study Design

The study is a descriptive and explorative analysis of complementary feeding practices and the factors influence them base on Health Benefit Model (HBM) has a theoretical frame work. A purposeful random sampling by balloting without replacement was used to choose 10 mothers with children 6-23 months from a village in Opi town in Nsukka L.G.A of Enugu state. The eligible 10 mothers were selected and compiled based on the growth monitoring records in Ibeku Health Centre in Opi town. This was made3 possible by the assistance if community health workers also called cadres.

13. Inclusion and Exclusion Criteria

Participants were included based on the following:

a. The person must be either parents or full time care giver that has children infants 6-23 months.

b. The person must reside within Ibeku Opi.

c. The child in their care must be in good health.

d. Participation in the study was voluntary.

14. Procedure for The Study

A semi-structured face to face interviews to get into participant's personal experiences and perspectives was done once an eligible participant, the research will initiate contact through messages or phone call. This is done to arrange for convenient time for the interview, the scheduling of the interview must be based in the participants availability. The participants engaged in in-depth interviews with each of our researchers with the corresponding author as head. Each interview lasted for approximately one hour.

15. Data Collection

The interview normally took place in the participant's home or wherever he or she chooses for comfort purposes and also for the safety of the confidential message taped. This was anonymised (data does not identify individual) by assigning a unique identification number to each record transcript and the note set aside. A set of six detailed opened questions were used to elicit information from the respondents.

1. At what month did you introduce solid food to your children, can you recall?

a. Can you describe your baby's eating routine?

b. Does your child start to accept solid food before or after walking?

c. Do you give breast feeding or commercial formula milk at the beginning, please is it possible for you to give a detail of the child's breast fast, lunch and dinner status?
2. Do you remember any barriers, challenges you have encountered in the course of complementary feeding if any give detail?
3. Is there any specific benefit in your child or else where you have seen in complementary feeding practices? Please kindly explain in detail.
a. Do you think that the preparation of complementary foods(CF) and feeding in a good hygienic condition help to prevent child/infant infections?
b. Can providing energy dense complementary foods (EDCF) will help reduce the risk of child malnutrition?
c. Do you understand and also believe that giving a variety of food and keeping to an appropriate feeding frequency based on the child's age can reduce the likelihood of malnutrition in infants?
4. Do you have any aspect of CF practices that makes you feel vulnerable?
5. Are you confident in yourself when it comes to managing the portion, sizes food variety and feeding frequencies CF?
6. Do your husband support you and other family members when practicing CF, if they do, can you throw more light on how they do so?
a. Do you receive support from peers or GDRE members as you navigate CF practices? If you do can you help us know more about their support?
b. Do you get any support or guidance to facilitate CF practices? If any help off or not please elaborate on how they support and assist.

16. Characteristics of Participants

The research procedures was completed by ten mothers and their children. It involved mothers aged 25-40 years. 3 mothers at the age between 25 and 35 years, while 7 mothers are between 36 and 40 years. In their education background, 7 had a bachelor's degree, 2 had junior and senior WASC respectively, while 1 had a master's degree. 3 of the mothers were unemployed while 3 were unemployed. The gender distribution of the children were 6 females and 4 males. The children's age were 6-23 months. 5 of them were 6-9 months, 2 were 10-12 months and 3 were 13-23 months of age.

17. Time for The Introduction of Complementary Foods

❖ Complementary feeding was introduced at varying stages,
• 2 children got it at 5 months.
• 6 children got it from 6 months.
• 2 children from 7 months of age.
❖ The nutritional assessment of the children based on the weight-for-Age Z scores goes as follows:
• 1 child/infant is underweight.
• 1 is obese.
• 8 is classified as having normal weight.
❖ Height-for-age status Z scores indicated,
• 3 infants/children as stunted.
• 4 as normal height.
• 3 as severely stunted.

18. Data Analysis

The interview statements were transcribed to English because some women spoke in their native language, some used pigin language and a few used English language. The transcribed and the transcripts were later cross-checked by comparing them with the original interview records and also took into account the field notes from each interview. The manual coding were later done and applied consistently to the whole transcripts.

19. Ethical Clearance

Ethical permission to do the inas was gotten from the ethical clearance university of Nigeria teaching hospital (UNTH) Ituku Ozala in Enugu state with the number NHREC/05/01/2008BFWA00002458-IRB00002323. Informed consent was taken from all the participants after full explanation of the natural purpose and procedures used in the study. This is a self-sponsored research work.

The study investigated the main reason various aspects of complementary feeding FC in Nsukka L.G.A in Enugu state Nigeria. It revealed some ideas and aspects of CF, individual prospective, social support dynamic among mothers in the L.G.A and come up with the following findings:-

1. Complementary feeding CF practices: varied approaches by mothers and care givers were taken. A mother said that she started giving fortified porridge from 7 months old. Another mother said that she prepared basic family meals like rice, she added egg and shredded meat for breakfast, gives vegetable soup at noon and then skips dinner. This also depends on some families. A mother said that she do not combine her child's food with the family food, because if it finishes she cannot use the commercial complementary food because of the excessive processing and commercial preservative. The mother described varied approach to their complementary feeding practices mainly with home-made meals.

A participant mother 6, 38 years, 15 months stated that, "I gave my child fortified porridge from seven months", "Breakfast is something simple, rice, egg, and shredded meat. At non vegetable soup. Yes I used rice… children rarely eat dinner; it depends on when they go out so they eat together. If at home she gives simple soup or clear soup or clear vegetable". Participant 2, 33 years, 9 months. *Mothers reported the meal frequency for their children. The mother generally reported that meal frequency of their children is time daily, they made adjustments depending on the mode and routine. A mother stated that her child usually had three meals depending if the child is not fussy and sleep coinciding with the meal time, at times, she, managed to feed twice daily. A mother said that at times she forget to feed her child time yet she would ensure that the child still receives all three meals which might lead to feeding later than usual. At times, wakes the baby at night to feed him or her. "My child eats three times daily, but if she's really fussy, and sleeping time collides with eating time, the child goes to sleep, that makes the infant eat twice a day. Participant 4, 31 years, 9 months. "My child always eat three times a day. If I forget to feed my child or even though it was

late I still fed him. Participant 6, 38 years, 15 months". "Mothers preferred non-dairy animal source for their children" mothers exhibited different preference when it comes to providing non-dairy animal sources for their children. One mother avoided giving her child beef, opting instead to serve rice accompanied by crayfish. Another mother included beef in her own child's CF with chicken liver, chicken meat and vegetable varieties, carrot, scent leaves, curry leaves, (celery and leeks) at times, if available. "I have not given my child beef. Usually, I serve rice with crayfish, participant 4, 31 years, 9 months". "At the moment, I am still giving a menu of beef, chicken liver, carrot, scent leaf, curry leaf, (celery and leeks) at times, if available; I also give chicken liver with chicken meat" participate 3, 33 years, 7 months. "Mothers allowed their children to eat sweet and beverage" mothers expressed varied preferences for their children's food choices. A mother mentioned that her child enjoyed sweet foods like sweet potatoes, sweet candies. Another mother stated that her child was offered sweet potatoes and sweet candy, but did not show any sign of liking it or any other sweet snacks. That the child prefers traditional home-made foods like mixed vegetable corn dish, mixed legume and dry cocoyam dish, bambaranut pudding and soymilk pap. "My child likes to eat sweet foods like sweet potatoes, sweet candy." Participant 2, 33 years, 19 months. "My child was once again given sweet potatoes with red oil and another day sweet candy but does not crave for sweet things. Prefers traditional snacks like bambaranut pudding, akara balls" participant 6, 38 years, 15 months.

20. Approach by Different Mothers to Giving Unhealthy Food to Their Infants/Children

A mother reported that her son was given food of high sodium status(soymilk and fried sweet plantain) by his older sister, inspite of this, though children crave for fried plantain, the child did not develop liking for the food. Another mother said she is yet to introduce any high sodium (CF) in form of snacks. "Participant 10, 30 years, 8 months, I have not introduced any high sodium snacks. "My son was introducing to eating high sodium fried sweet plantain by his older sister, but he doesn't like it" participant 9, 27 years, 10 months. Barrier faced by mothers such as lack of cooking skills, baby resistance and complicated food preparation. Many of the mothers faced significant challenges that impacted their ability to consistently prepare and provide meals for the infants/children. One of the barriers is time constraints, especially with mothers that have multiple responsibilities. She expressed frustration with the time intensive process of preparing for CF which has to do with blending, filtering, etc, to achieve the right texture and non-fibrous food. Her busy schedule and exhaustion especially in the evenings lead to the purchasing of ready-made foods like vegetable corn mill porridge. Another stated that she set aside at least two days to cook all that she needs and freeze. She can reheat when the need arises. This helped her manage her time better without giving consideration to the freshness of the food and nutritional quality. Skills of cooking possess a challenge also. A mother admitted to lack of confidence in her ability to make nutritious meal for her child and most times, baby refuses the food.

"I have time constraints, I cooked for my other children and husband, infants own must be mainly blended food, filter to adjust texture. It takes a long time; I do it at night, when I am already tired. So based on this I buy readymade foods like vegetable corn meal porridge" Participant 2, 33 years, 19 months(34 years, 6 months). "I cooked it once for two days, so I put it in the freezer and then when I want to eat, I heat it up" Participant 3, 33 years, 8 months. Mothers feel the positive benefit when they introduce complementary feeding (CF). The introduction of complementary feeding was met with positive and advantageous feedback from mothers. They signify improvements in their children's behavior and development. The mother observed satisfaction of the child/infant's nutritional needs that leads to increased comfort and emotional stability (baby do not cry non-stop and sleeps well). Another mother talked about observable benefits like anthropometric indices (positive weight-for-age), increased activity (positive height-for-age) that leads for more frequent bubbling, toddling and ability to walk without much discomfort. "Increased weight and increased height" the child also more active and babbles a lot" Participant, 33 years, 7 months. Different levels of confidence to complementary feeding food preparation process. Mothers show varying levels of confidence in their ability to prepare complementary foods for their infants/children reflecting on events or individual encounter that gives her self-reassurance. She demonstrated high level of confidence in her approach, stating that she carefully adheres to recommended portions sizes and frequencies of feeding and as always monitors her child's growth always at the health center.

Another mother has a different view, she does not care whether a child accepts or eats the food she prepares because of the needed food items; all she knows is that she has the confidence that the child/infant must eat what she prepares. "I always quickly prepare soymilk pap porridge based on the portion size and frequency of my feeding infant/child. I go to health centre monthly to check the growth in weight and height at the health centre" Participant 3, 33 years, 7 months. "I have this each time I cooked solid food by myself, yes the fear is always there of not having enough carbohydrate or enough proteins, the fear is always there" Participant 4, 31 years, 9 months. Different ideas of participants regarding weaknesses/vulnerabilities when mothers did not focus on food hygiene, energy-dense food and frequency of complementary feeding CF. Different views of mothers on the risk of not focusing on food hygiene, energy-dense nutrition and the frequency of complementary feeding. Some of them agreed on the importance of food hygiene believing that proper cooking and handling might reduce the risk of infections. The problem of malnutrition was raised and mothers agreed that small portion sizes and nutrient-poor diets had led to weight loss among the some differed on the importance of frequency and variety of foods. A mother said that less frequency and variety of complementary feeding might not have caused malnutrition in that the immune of the infants/children differed. Another believed that as long as breastfeeding continued the frequency of complementary food is less important. A mother view differed, she said that feeding energy-dense foods were not essential and that the introduction of

animal proteins was more important, suggesting that variety of diet might not have been necessary for every infant/child. "Ok, I feel that preparing hygienic solid food can prevent infant/child infection". Participant 4, 31 years, 9 months. "I feel that energy-dense food can reduce malnutrition in infant/child because what I give yesterday has less nutrient-dense and the portion size is also small. My baby loses weight today" Participant 2, 33 years, 19 months.

21. Special Support

Husband's involvement in complementary feeding processes. Husband's involvement varies among families. It shows diverse levels of engagement and support.

Some mothers, their husbands play an active and supportive role while some mothers experience some limitation in husband based on some internal factors, some mothers depend on alternative sources of help. These make some aunts and mothers help to be an important assistance to feel the husbands less involvement.

"My husband actually supports/helps in the process of CF. he blends babies foods and most times feeds the infants" Participant 3, 33 years, 7 months.

"My husband's mother rarely is a great help to feed our baby because my husband goes out in the morning and comes back late" Participant 5, 34 years, 6 months.

Limitations from peer or cadre in the community support for complementary feeding from community cadres and health centers at times not adequate. In spite of the cadre potential role, they mostly focus on issues of anthropometric indices instead of specific guidance on CF.

The peer support varied, some depend on online discussions, sources and guidance, and some information shared by mothers, either at health centre, church organization.

"Cadres support has not been maximized, I am also a cadre but it is that we've always been talking about stunting; in reality, the cadre do not have enough nutritional education on how to go about most of the nutritional challenges in some health facilities". Participant 1, 32 years, 10 months.

"I have not exchanged with anybody on CF. I go online and Google for myself whatever information I felt like copying". Participant 10, 30 years, 8 months.

22. Insufficient Support from Community Health Centers Especially from Health Care Workers

Community health centers such as Nsukka Health Centers, also fell short in offering comprehensive education on complementary feeding. A lot of participants reported that these centers mostly focus on basic services like anthropometric indices and immunization with little to no nutritional education (CF). some mothers at time receive advice from health officers like mid wife, the support was not systematically carried out. "There is no proper education about complementary feeding at the study area, only weighing and immunization. Participant 2, 34 years, 7 months". "I received education once from a mid-wife because my child was under weight for his age. He was given bambaranut pudding, she gave me in between menu suggestion". Participant 10, 30 years, 8 months.

23. Discussion Cont

Moreover, type 1 diabetes can be avoided if infant is not given cow's milk before six months of age WHO (2021).

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