

A SURVEY OF MOTHERS 'NUTRITION KNOWLEDGE ON THE LEVEL Of NUTRITIOUS FOOD PROVIDED FOR THEIR PRIMARY SCHOOL CHILDREN IN ASABA METROPOLIS, DELTA STATE.

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Abstract

This paper discussed the importance of mothers nutrition knowledge and practices in the provision of nutritious meals to children for proper growth and development. Three research purposes and three research questions guided the study. A survey research design was employed, population consisted of all mothers who currently have child/children in nursery and primary schools within Asaba metropolis. A questionnaire and nutrition checklist was used for data collection and data collected were analyzed using mean statistics. Result revealed grand mean of 2.4 in research question 1, grand mean of 2.5 in research question 2 and research question 3 revealed that 17 pupils lunch packs were nutrient dens, while 33 packs were empty calories. Based on these findings, it was recommended that mothers in Asaba metropolis should be oriented with appropriate nutrition knowledge and practices through health centers during pre and post natal clinics and that Home Economics teachers in basic school levels should teach food nutritive vales and functions to guide food choice and consumption pattern among others.

Keywords: Mothers, Nutrition, Knowledge, Growth, Development.

Introduction

Nutrition continues to play a significant role in human health, from conception till death. Humans (with children inclusive) depends on the nutritive contents of food consumed to maintain and sustain life; grow both physically and biochemically into adulthood where they are harnessed into the labour force as human capitals. Food consumed by the children in the households are usually provided by the mothers. . The mothers are usually the ones who makes food choice and feeding habits adopted by the children; therefore mothers nutrition knowledge and practices definitely have impact in the child's growth and development (Mbah, 2019).

The food choice of most mothers are often based on factors that has no scientific values, such as personal likes and dislikes, cultural believes and practices, food availability and affordability among others. These reasons for food choice that are not scientifically based can lead to malnutrition and ill-health challenges (Uko-Aviomoh, 2018); hence the concern for this research work.

World Health Organization (WHO, 2015), reported that the double burden of diseases round the world, results from either inadequate food supply or lack of basic nutrition knowledge of food and poor feeding habit. Food and Agriculture Organization (FAO,2014) reported that under nourishment and deficiency in essential vitamins and minerals cost more than five (5) million children lives yearly , cost households in developing world more than two

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hundred and twenty million years of productive lives from household members whose lives were cut short or impaired by disabilities as a result of malnutrition.

Human capital has been a concern in the world economic discourse and most economists use the term, human capital to describe staff and employees in business (Wakeel, 2010). WHO (2015) reported that human capital includes peoples in organization and business, who are committed to the attainment of organizational goals. From these definitions, one can say that human capital refers to people (leaders, directors, members and employees) required to maintain organizational existence.

Human capital issues has attracted concern, on what strategies that could be employed to improve on quality of human productivities prior to the 2nd

,N world war and

beyond (Wakeel,2010). In the past emphasis has been on high academic attainment as well as the acquisition of entrepreneur skills; but the World Bank (WB, 1999) remarked that human capital development strategies should not only emphasis on academic attainment , but should recognize health as a major component of human capital development strategies.

Schultze (2019) also stated that good health is a necessary condition for school attendance, since a child has to be healthy to endure the rigor of schooling; and that adequate nutrition and proper nourishment during developmental stages are very important for good health.

From the foregoing, mothers who plans, prepare and provides meals to children have vital role to play in human capital development both in the home and society. Their nutrition knowledge and practices has the potential to make or mar the developmental qualities of children raised in the home and household. Most of these mothers may be educated in different field of studies outside nutrition, and never had received tutorials on proper food choice, knowledge and handling practices that may lead to adequate dieting. Rather, their nutrition are based on factors like traditional practices such as; likes and dislikes, food availability and affordability among others. These attitudes of food choice may lead to malnutrition ill-health challenges in children at developmental level.

Salami (2021), reported that traditionally, people do not see the consumption of fruits as a necessity even at adulthood, and so fruits nutritive value are often ignored as part of basic nutrients required for good health. Therefore improper nutrition knowledge and practices of mothers could result in malnutrition ill-health challenges. This is because hunger is not just an absence of foods, but in adequacy of basic food nutrient in food consumed; which in turn leads to mal nutrition health challenges.

Fig 1. Impact of Hunger and Malnutrition throughout Life.

Source: FAO report on impact of Food insecurity (2014).

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Fig 1, above, explains the relationship between hunger, malnutrition and human life cycle (ie from the present to the next generation).

James (2016) reported that children who survived childhood malnourishment diseases, often suffer from life-long physical and cognitive disabilities which are measures used to quantify the impact of malnutrition on both poor health and increased mortality; and it is called Disability Adjusted Life Years (DALYs).

WHO, (2021) also reported that the cost of hunger and mal-nutrition to the family, society and nations at large comes in several distinct forms, but the commonly used parameter includes:

□ Direct cost : The direct cost includes incomes spent in providing medicals (provisions of hospital facilities, employment of medical personnel's and purchase of drugs among others).

□ Indirect cost: the indirect cost includes lose in productivity and income caused by disabilities, absenteeism from school, low educational attainment, low occupational opportunities and premature death. Ayankoha (2016) also stated that every year of missed schooling during childhood cuts deeply into life time earnings.

From the foregoing discussion, one can conclude that inadequate nutrition especially at household level where children are born and nurtured until schooling till adulthood has significant impact inhuman capital development. WHO (2021) reported that cognitive disability measurable in lower score on intelligent quotient (Qi) leads to job placement, productivity and earnings; and that iron deficiency in early childhood is the major cause. Wiltington (2017), remarked that food nutrient content should be a priority to every human

because the quality and quantity of food nutrient consumed are consummate to quality of health and longevity. When food choice and feeding habits are guided by appropriate nutrition knowledge and practices, children grow healthy and attain high quality human capital in adulthood. WHO (2021) further advocated that quality foods are quite costly, and requires individual commitment of about twenty five (25) to thirty (30) percent of their income. Nancy (2011) also advocated for quality nutrition for children and infants in the American dietary guide, stating that mothers should pay attention more to food sources of complete proteins, vitamins and minerals to promote healthy growth and development; while limiting empty calorie foods that could lead to childhood diabetes at younger age.

Statement of the Problem

Mothers in the households plays significant role in the family as the grosser. Mother make choice of foods prepared for every member of the household including the children. Often, mothers nutrition knowledge and practices are based on food likes and dislikes, cultural believes and practices, food availability, and affordability among others. These reasons for food choice are contradictory to recent scientific information on child's nutritional needs for proper growth and development. . The problem statement therefore are “ Do mothers in Asaba metropolis have basic knowledge of food nutritive values? And can mothers 'nutrition knowledge guide proper food choice and feeding pattern in the provision of children meals for proper growth and development. These and few other challenges necessitated this study.

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Purpose of the Study

The main purpose of this study is to investigate the nutrition knowledge and practice of mothers in Asaba Metropolis as a panacea to quality human capital development.

Specifically, the researcher assessed;

1. If mothers in Asaba metropolis have knowledge of food sources of nutrients required by children for healthy growth and development.
2. If mothers in Asaba metropolis nutrition knowledge, could guide healthy food choice for proper growth and development of children.
3. To observe the adequacy of nutrition content of meals provided for children in their lunch box.

Research Questions

The following research questions guided the study:

1. Do mothers in Asaba metropolis have nutrition knowledge of food sources of basic nutrients?
2. Can the nutrition knowledge of mothers in Asaba metropolis guide health food choice for children proper growth and development?
3. Are the children lunch box food contents nutrient dens and adequate to support healthy growth and development?

Methodology

Research Design

The researcher employed a survey research design for the study. A survey design according to Abanobi (2021) is a research design where the researcher does not manipulate any of the study variables, but simply collect the opinion of respondents on the subject matter of the study, analyzes their responses and draw conclusion of findings.

Population of the Study

The population of the study comprised all mothers, who presently go on school –run, dropping their child / children or wards in the morning and picking them in the afternoon from primary and nursery schools in Asaba Metropolis. The population is infinite.

Sample and Sampling Techniques

A purposive sampling techniques was used to select five (5) mothers from five public primary/nursery schools and five (5) from private primary/nursery schools in Asaba metropolis. The actual sampled respondents were ten (10) primary and nursery schools and fifty (50) respondents.

Instrument for Data Collection

The instrument for data collection was a questionnaire, consisted of sections A and B. Section A has five (5) bio-data information while Section B have (20) closed-end items that focused on the study subject matter, structured in four Point modified likert scale namely; strongly agreed (SD), Agree (A), Disagree (D) and Strongly Disagree.

SA ----4point

A-----3point

D----2point

SD--- 1point.

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Validity of the Instrument

The validity of the instrument was established by two chief lecturers in Food and Nutrition and one other in the Department of Measurement and Evaluation, all in Federal College of Education (TECH.), Asaba. Their validity was based on construct and content value in obtaining valid data on the subject matter and nutrition adequacy check list.

Reliability of the Instrument

The reliability of the instrument was established through Test- retest method. Ten copies of the instrument was administered to ten mothers in primary and nursery outside Asaba metropolis twice within two weeks interval, data generated in the two occasions were subjected to Pearson Moment Correction Co-efficient and was found to be 0.87.

Method of Data Collection

The researcher visited the ten sampled schools (public and private primary and nursery schools) and administered the questionnaires to mothers who brought their child/children to primary and nursery sections, guided them to appropriate completion of the items and waited to observe the nutrition qualities of children lunch box food packs with nutrition check list.

Method of Data Analysis

Data generated from the field survey, was analyzed, using mean statistics, a mean of 2.5 were accepted, while a mean less than 2.5 were rejected. The observation check list was used to evaluate lunch box content food nutrient density into adequate/ not adequate respectively.

Results of findings

Research Question One: Do mothers in Asaba metropolis have nutrition knowledge of food sources of basic nutrients?

Table 1: Mean Scores on the Levels of Mothers Nutrition Knowledge of Food Sources of Basic Nutrients.

S/N Item SA A D SD

Total

WTD

scores

X Remark

Mothers in Asaba metropolis can identify food sources and functions of basic nutrients on child's growth development such as:

1 Proteins: Egg, meat, fish, beans, milk crayfish, nuts and crabs among others

5 12 15 18 50 104 2.1 Rejected

2 Carbohydrates: Rice, yam, bread, custard, beans and ripe plantain -- dodo, for energy to carry out activities.

6 11 21 12 50 105 2.1 Rejected

3 Vitamins: oranges, pawpaw, watermelon, tangerine, garden egg etc. for strong immunity

14 10 17 09 50 109 2.2 Rejected

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4 Mineral: Table salts, vegetables such as spinach, pomky leave, saint leave, cucumber, carrots, biscuit bone etc. development of strong bones

10 18 10 12 50 126 2.5 Accept

5 Fats and oil: Nuts, meat, fish, cooking oil etc that helps the skin, nail to grow healthy.

3 7 21 19 50 96 1.9 Rejected

6 Meals planned, and prepared for children in the homes are more nutritious than junk foods.

11 18 12 09 50 131 2.6 Accepted

7 Complete dishes have more nutrients than snacks

15 13 12 10 50 133 2.6 Accepted

8 Junk foods such as dough nuts chin-chin biscuits and candies among others can disposition children to deficiency of vitamin and minerals

10 15 13 12 50 123 2.5 Accepted

9 Children exposed to hunger e.g. inadequate feeding cannot grow well or development well

13 18 11 08 50 136 2.7 Accepted

10 Children who do not eat well always are sickly and always absent in school

11 16 14 09 50 129 2.5 Accepted

Grand mean 2.4

Field survey, 2023.

Table 1 above, revealed a gram X of 2.4, which is below the mean of acceptance X 2.5. This indicates that mothers in Asaba metropolis do not have adequate knowledge of nutrients food sources that will enable them in making healthy food choice in meal planning and provision.

Research Question Two: Can the nutrition knowledge of mother in Asaba metropolises guide healthy food choice for children proper growth and development?

Table 2: Mothers Nutrition Knowledge in Providing Nutritious Meals for Children

S/N Item SA A D SD

Tot

al

WTD

scores

X Remark

Nutritious meals for children

11 Beans potage, dodo and orange juice

08 13 14 15 50 114 2.3 Rejected

12 Fish jellof rice and banana 11 18 12 09 50 131 2.6 Accepted

13 Beans pudden (moi-moi) and

milk sweetened pap
 09 13 15 13 50 118 2.3 Rejected
 14 Indomie jellof boiled egg and
 bobo drink
 13 15 11 11 50 130 2.6 Accepted
 15 Boiled yam served with
 omilets
 09 14 15 12 50 120 2.4 Rejected
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 16 Crayfish unripe plantain
 portage and pap-paw cubes
 07 11 17 15 50 120 2.2 Rejected
 17 Puf-puf and chivita drink 12 11 12 10 50 110 2.6 Accepted
 18 Beef stew and boiled
 spaghetti, water
 11 17 13 09 50 130 2.6 Accepted
 19 Boiled yam, red oil and orange 08 11 14 17 50 110 2.2 Rejected
 20 Tea, buttered bread and
 water
 13 17 11 09 50 134 2.7 Rejected
 Grand mean 2.45 Accepted

Field Survey 2023:

Research Question 2, revealed a grand X of 2.45. This can be approximated to 2.5, which is acceptable. However, five items that has to do with nutrient dens meals for children were rejected.

Research 3: Are the children lunch box food contents nutrients dens and adequate to support health growth and development?

Table 3: Nutrition quality of lunch box content of pupils observed

Section B: Non nutrients dens/ empty calorie
 such as food that have carbohydrates and fats as
 the major nutrient content such as
 Puf-puf and bobo drink

Indomie jellof, boiled egg, and bobo drink

Dough nuts and chivita drink

Pop corn and happy hour

Biscuit and caparison among others

Section A: Nutrient dens foods, such as, foods
 that have protein, mineral, vitamins and
 carbohydrate source. E.g.

1. Bean pudden (moi-moi) and orange juice
2. Fish jellof rice and banana
3. Beef vegetable source and boil yam
4. Cake and apple juice
5. Fish sauce, boiled supergettee and carrot
 juice etc.

17 packs 33 packs

Field survey, 2023.

Table 3 above, revealed that seventeen (17) pupils 'lunch pack from their mother had nutritious meals that have the potentials of supporting healthy growth and development. While thirty three (33) lunch box food packs were empty calorie (foods that are high in carbohydrates and fats nutritive values).

Findings of the Study

1. Research Question 1: revealed that mothers in Asaba metropolis do not have adequate nutrition knowledge as could be seen in respondents opinion in some of items.
2. Research Question 2: revealed that mothers in Asaba metropolis meal provision for their children may not support proper growth and development as could be seen in the rejection of items 1, 2 and 3 among others in their responses.

3. Research question 3: revealed through the observation of pupils lunch box food contents that seventeen (17) lunch packs had nutrient dense meals while thirty three (33) lunch packs were empty caloric meals.

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Discussion of Findings

The findings of data analysis in this research work revealed in research question 1, that mothers in Asaba metropolis do not have adequate nutrition knowledge, with a grand mean of responses of 2.4. A careful look at the items in the instruments also shows they do not have adequate knowledge of food sources of protein X 2.1, carbohydrate X 2.1 vitamins X 2.2 and fats and oil X 1.9. This finding is in line with WHO (2015) report, which stated that ignorance of food nutritive values and function in the body is responsible for ill health challenges that have nutrition under tone. Therefore children in the homes can suffer nutrients deficiency disease as a result of mothers ignorance.

Research question 2, also revealed a grand mean of 2.45 which could be approximated to 2.5, however five items (items 1, 3, 4,5 and 9) that had nutritious food items, that promotes growth and development were rejected with $X < 2.5$. This further showed the level of mothers ignorance on the nutritional needs of their children for proper growth and development. This finding is in line with Uko-aviomoh (2018), who remarked that people's ignorance of nutrition value of food contents has often predisposed them to preventable ill-health challenges that has the potential to lead to death prematurely.

Research question three, examined mothers nutrition practices as observed with food nutrient checklist, revealed seventeen (17) lunch pack boxes of the children observed had adequate and nutritious food items. While thirty three (33) lunch boxes of the observed children were packed with empty caloric food items. This findings is in line with Nancy (2011) who reported that adequate nutrition diet are made up complete proteins, vitamins and minerals and that such should be giving to children to ensure appropriate development.

Conclusion

Nutrition knowledge plays significant role in living healthy and life sustenance, therefore mothers ignorance of food nutritive values needs for appropriate growth and development of their children in early childhood, may have negative effects on growth and development as well as capabilities in life.

Recommendations

From the findings of research work, the researcher recommends that:

1. The local government through her good office of health centres, orientate pregnant women during pre-natal and post-natal visits so that every mother will have good knowledge of nutrition needs of children for proper growth and development. Individuals in the homes and society, nutrition knowledge can also be upgraded through regular mass-media health talk relating to how food choice and consumption pattern affects health and longevity.

Since Home Economics is a compulsory subject offered in Basic Education Levels, Home Economics Teachers should use their good office opportunity to emphasize food nutritive values food nutrient sources, functions in the body to maintain good health, so that every individual that pass through Educational System can be nutritionally secure.

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