

The Assessment of Nutrition Status of Preschool Children from (3-5) and Its Health Effect on Low Income Families in the Faisalabad

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Abstract

Food insecurity especially in low income is high and as well malnourished food made diet useless for health. The time in which children need balanced diet including micronutrients (vitamin, minerals) and macronutrients (protein, fiber, fats, carbohydrate) for proper growth, the parents enable to satisfy children nutrition need due to low income. The purpose of the study is to assess the nutritional status and usual diet intake of pre-school children between the ages of (3-5) years and its health effect on low income families in district Faisalabad also observed. The adverse effects of nutrition status are also observed in term of growth, development, health, malnutrition and obesity. Multistage sampling technique used for collecting data from City Faisalabad. First of all two towns selected from 8 towns of district Faisalabad through randomly sampling technique. Then two Union Councils selected from each Town through randomization process. Four

parishes (Ghazi-pura, Ashraf-Abad, Matoon-pura, and new green town) were selected purposively. A sample size of 140 respondents used to collect data from mother to assess the nutrition status of preschool children 3-5 from low income families through purposive random sampling technique. The data were obtained from the questionnaires analyzed using Statistical Package for Social Sciences (SPSS). The result showed that stunted children, wasted children, and under-weight children was measured. The negative effect of poor nutrition leads to children death and poor maternal health. Mostly parents were illiterate and also they did not have any nutritional knowledge and information. Large family size increase family expenditures that are hurdle in fulfilling food storage and deficiency. There is need to educate parents through lady worker visit,

seminar and media campaign to know about healthy food pattern.

Keywords: Food Security, Nutritional Food, Preschool Children's Health Status and Malnourishment.

Introduction

The recent decades showed a rapid change in dietary pattern. The modification in dietary pattern and change in food system are due to population growth, urbanization, and globalization and better living standard. The stage of nutrition mentioned a decreasing trend shift from traditional food vegetables, fruits to meat, milk and processed food that have high sugar, fats and oil (Ambler Edwards et al, 2009).

Different countries in the world are going through different stages of nutrition transition. Mostly countries face problems of food insecurity and undernutrition as well as overnutrition and chronic diseases problems. There is a need of investment in applied research to find out effective and efficient ways for improving healthy lifestyles (Kennedy, 2005).

Mother's education is an important aspect for children's health. If mother have high

maternal education then there will be lowest children malnutrition. She will share awareness for health precaution and implementing family resource for the betterment of children. Father's education is also key indicator for child health. Mostly father earn for his family and decide what to do in what time. That is why the betterment of nutrition is associated with father's education (Rahman, 2009).

Parent's stance on preferred foods can affect the kinds of foods offered to children and their availability. For example, Parents fondness for vegetables can be a barrier for children with health, whose parents dislike healthy food and prefer junk food. Another influential factor is the kind of food accessible in children's home (O'Dea, 2003).

Numerous studies have time to name as a perceived barrier to healthy foods, while increasing the consumption of fast food and the downward trend of home cooked food (Hearst et al., 2012). Parents accepted that the preparation of meal looks difficult after school and work activities. Those parents who are more educated did overcome this constrains by planning and managing their

daily routine. The planning management and skill is to make food in quick time leads to the selection of healthy foods (Morin et al., 2013).

Nutritional education programs should be produced highlighting the parents of the entire barrier. These programs should give the concept of good parenting with quick work. To tackle social and environmental pressure, parents must need to build skill which accelerate the plan of healthy diet in limited time and at low cost. During preschool time, the rate of physical growth is very slow than the rate of physical growth of new born baby. Good physical growth leads to steady increase in height and weight. The secret of good physical growth is the fulfilling nutrients need of body (Ahmed Nazrin, 2012).

Breast feeding has benefits for both mother and child. It provides good nutritional

foundation for babies and strengthens the interaction between mother and child. During the first six months breastfeeding baby gets enough nutrients for growth and development unlike vitamin D is necessary to prevent rickets-mineral intake (Käypähoito 2013).

The major nutrients essential for proper growth are often of major concern in developing countries are carbohydrates, proteins iron, zinc, iodine, calcium, vitamin B12 and vitamin A, which are acquired from a number of foods that make up the diet. These nutrients are also of low bioavailability and poor quality especially in cereal based diets. Increasing the consumption of animal products improves the amount and bioavailability of micronutrients (Bentley *et al.*, 2000).

| NUTRIENTS | |
|----------------|----------------|
| Macronutrients | Micronutrients |
| Fats | Vitamins |
| Carbohydrates | Minerals |
| Proteins | |
| Water | |
| Fiber | |

Diet is related to external factors like culture, financial security, and physical location. Some cultures have very specific dietary habits that may include a wide range of foods while some people may be reliant on seasonal food items due to where they live. Diets in these areas can become

monotonous and pose difficulty when assessing serum levels of micronutrients. This is because of the amount of micronutrients being present in those food items or the bioavailability of micronutrients being concentrated within certain foods (Winichagoon, 2008).



Zinc is a trace mineral that a function in gene expression and essential cell processes, i.e. development and replication. While the specific indicators of zinc deficiency are still being debated in the medical world, it has

been described by stature, hypo-gonadism, impaired immune-function, skin-disorders, cognitive-dysfunction and anorexia (Caulfield and Black, 2011).



Objective

The main objectives of this research are;

- To investigate the usual preschooler children dietary intake
- To measure the body mass index for nutritional status and
- To identifying the effect of malnutrition and mothers unbalanced diet on children s health status.

MATERIALS AND METHODS

The study site selected for this research is urban area of district Faisalabad

Study Area

purposively. Two towns were selected from 8 towns of district Faisalabad randomly. Then two City Councils were selected randomly from two towns. Then four paishes (Ghazi-pura, Ashraf-Abad, Matoo-pura, and new green town) were selected randomly from each city council.

Target population

The target population was children aged 3-5 preschool children from low income families.

Sample Size

Sample can be defined as accurate envoy of the population, which has all the characteristics of preferred population. 140 respondents (35 from each parish) were selected randomly from the study area.

Data collection:

Construction of data collection tool

Social science deals with human nature, Feelings, emotions and minds of human being. To study all these factors it was

compulsory that data collection tool was very accurate and reliable. Interview schedule was prepared with open and close ended questions to collect the data from respondents. It was structured to get all the required information from the respondents.

Interviewing the respondents:

Interview was conducted from respondents to collect facts. The investigator himself interviewed each respondent to make sure unbiased response and then rechecked each questionnaire for accuracy and uniformity because it was very difficult to approach the same respondent at any subsequent stage.

Analyzing of data:

Collected data was analyzed using the Statistical Package for Social Sciences. Descriptive statistics, including frequencies, percentages, means and standard deviations, were used to summarize different variables. Data was interpreted with the help of a computer software i.e. statistical package for social sciences.

RESULTS AND DISCUSSION

Table.1

Distribution of the respondents according to food accessible places

| Preferred food affordability | Frequency | Percent |
|-------------------------------------|------------------|----------------|
| Yes | 70 | 50.0 |
| No | 70 | 50.0 |
| Total | 140 | 100.0 |

Table 1 indicates that majority of the respondents i.e. 97.9 percent households were relayed on the nearest market for food accessibility. Very few respondents 2.1 percent were got their food access from rural homes.

Table.2

Distribution of the respondents according to food accessibility from Agri land

| Getting food from agricultural land | Frequency | Percentage |
|--|------------------|-------------------|
| Yes | 1 | 7 |
| No | 139 | 99.3 |
| Total | 140 | 100.0 |

Table 2 shows that only 7 percent respondents did get food from heir agriculture land

| Preferred food affordability | Frequency | Percent |
|------------------------------|-----------|---------|
| Yes | 70 | 50.0 |
| No | 70 | 50.0 |
| Total | 140 | 100.0 |

Table.3

Distribution of the respondents according to food affordability

Table 3 highlight that 50 percent of the respondents did afford preferred food whereas 50 percent of the respondents did not afford food what they want too.

Table.4

Distribution of the respondent according to income as a barrier in purchasing preferred food.

| Income barrier for purchasing preferred food | Frequency | Percentage |
|--|-----------|------------|
| Yes | 117 | 83.6 |
| No | 23 | 16.4 |
| Total | 140 | 100.00 |

Table 4 shows that most of the respondent 83 percent said that income was a barrier in purchasing food while 16.4 said that income did not matter for us.

Table.5

Distribution of the respondent according to child care responsibility as a barrier in purchasing preferred food.

| Child care responsibility barrier | Frequency | Percentage |
|--|------------------|-------------------|
| Yes | 47 | 33.6 |
| No | 93 | 66.4 |
| Total | 140 | 100.00 |

Table 5 shows that most of the respondent 66.4 percent said that child care responsibility was not a barrier in purchasing food while 33.6 percent said that income was matter for us.

Table.6

Distribution of the respondents according to water drinking source

| Water drinking source | Frequency | Percent |
|------------------------------|------------------|----------------|
| Piped into dwelling | 92 | 65.7 |
| Public supply outside | 16 | 11.4 |
| Ground water | 4 | 2.9 |
| Plane water | 28 | 20.0 |
| Total | 140 | 100.0 |

Table 6 indicates that majority of the household 65% used drinking water from piped into dwelling while 20 percent of the respondents used plane water for drinking purpose.11.4 percent of the respondents used public supply water. Only small proportional 2.9 % respondents used ground.

Table.7

Distribution of the respondents according to water treatment methods

| Water treatment methods | Frequency | Percent |
|--------------------------------|------------------|----------------|
| Boiling | 136 | 97.1 |
| Filtration | 3 | 2.1 |
| Chlorination | 1 | 7 |
| Any other | 140 | 100.0 |

Table 7 reveals that majority parents 97.1 percent were boiled waiter before drinking. 7 percent respondents used chlorination method for treatment of water while only 2.1 percent parents used filtration method for treatment of water.

Table.8

Distribution of the respondents according to homemade special food for children

| homemade special food for children | Frequency | Percent |
|---|------------------|----------------|
| Pasta | 50 | 35.7 |
| Rice | 26 | 18.6 |

| | | |
|---------|-----|--------|
| Custard | 26 | 18.6 |
| Party | 38 | 27.1 |
| Total | 140 | 100.00 |

Table 8 shows that most portions of the respondents 35.7 percent made pasta for their children whereas 27.1 percent respondents were made party for children. 18.6 percent parents made rice and 18.6 percent also made custard as a special food for their children.

Table.9

Distribution of the respondents according to child taken in hospital in last 4 weeks

| Child taken hospital | Frequency | Percent |
|----------------------|-----------|---------|
| Yes | 118 | 84.3 |
| No | 22 | 15.7 |
| Total | 140 | 100.0 |

Table 9 highlights that most children 84.3 parents took their children when he or she was ill

| Dependent variables | Nutrition status |
|---------------------|------------------|
|---------------------|------------------|

while 15.7 percent did not take hospital during last 4 weeks.

Table.10

The nutrition status is independent variable according to income as a dependent variable.

Association between income and nutrition status

Ho: Independence

H1: Association

| | Chi-Square value | Gama value |
|-------------|------------------|------------|
| Income | 73.14 | 1.000 |
| Education | 24.01 | 1.00 |
| Family size | 73.78 | 1.00 |

Chi-Square Value = 0.05

df 3 P value = +1.00

Table 10 shows that there is a relationship between parents income and nutrition status. The value of chi-square are found to be significant at 0.05 level of significant and Gamma value also found to be significant at +1.00 which implies that there is a strong positive association between two attributes.

found to be significant at +1.00 which implies that there is a strong positive association between two attributes.

Chi-Square Value = 0.05 df 3 P value = +1.00

Table.11

The nutrition status is independent variable according to mothers education as a dependent variable.

Association between mother’s education and nutrition status

Ho: Independence

H1: Association

The table 11 shows that there is a relationship between mother educational level of the nutrition status. The value of chi-square are found to be significant at 0.05 level of significant and Gamma value also

Conclusions

It was showed that many children were underweight, stunted children and wasted children. The poor nutrition has a deep impact on the mother and child health. Children went towards death because of malnutrition and poor nutrition. Majority of the parent were illiterate and also were blank from nutritional knowledge and information. They did not know about what are calories, vitamin and minerals and what are daily requirements of calories of the children? High family size lead to high family expenditures as well as majority of families did not able to save money. Low Income is main barrier in purchasing food. The children’s diet were relayed on the staple

food mainly because parents afford it only. Majority of the household used water of piped into dwelling also did not treat water for drinking. In this way many of common disease attack. Children need balanced diet including micronutrients (vitamin, minerals) and macronutrients (protein, fiber, fats, carbohydrate) for proper growth and development but the food deficiency have been seen. Mothers did conscious about their eating pattern timing like breakfast, lunch, dinner but they did not eat variety of food. Only staple food is not enough in diet. Mother needs more vitamin, minerals and fiber. Some parents have nutritional knowledge but they did able to put nutritional knowledge into action because of cost, media, parents attitude towards preferred food and children attitude towards specific food. There is need to educate parents through lady worker visit, seminar, media campaign to know about healthy food pattern. If there will be no tax on food items then common man from low income can purchase maximum food in less budget that may fulfill the food deficiency of the children.

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