

Parent's Knowledge upon Nutritional Status of Primary School Children toward Low-Income Households in Al-Hilla City, Iraq

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Abstract

Background: Nutrition has a main impact on the health promotion of school-age children, it is crucial that the rising energy demands that come with this age are met daily with high nutritional value foods. School-age children get a well-balanced diet, an average of 2400 calories per day required to meet growth needs, as the child's size grows, as well as the amount of food required

Method: Descriptive design study was used and get the stated objectives the period of one month (from the first of January, 2020 to the first of February, 2020).

Results: The data analysis was indicated that the largest percentage of gender is female (97%); all of them are in the fifth class and 32% of mothers and 31% of fathers are graduated from primary school, most of them from urban area 86%.

Conclusion: All of the children were in the 5th class—most children with normal weight. Most children have breakfast daily. Most of the children have three meals daily. Most mothers choose easy to prepare food for her child. There is no a relationship between education of the mother and eating breakfast. However, there are a relationship between monthly income and eating fruits .

Keywords: *Parent's Knowledge, Nutritional Status, low-income households, Primary School Children.*

Introduction

Anthropometrics may be responsive measures of infant and child health, growth and development which it one most widely accessible, cheap and non-invasive approach used to measure human body size, proportion and composition⁽¹⁾. The ultimate goal of the nutritional assessment, according to WHO in 2013 to improve human health⁽²⁾.

To ensure optimum work capacity, normal reproductive performance, adequate immune reactions and resistance to infections, sufficient food and nutrition are important for proper growth and physical development. An inadequate diet can cause severe forms of malnutrition in children, deficiencies in vitamin A and disorders of iodine deficiency, also World Health Organization, in 2013 has proposed various anthropometry-based indices to determine the school-aged children's nutritional status. Body mass index (BMI) has now been well developed as the most important predictor for adolescent nutritional status⁽³⁾. Several research has looked at adolescent nutritional status from different parts of the world⁽⁴⁾.

Children's nutritional status plays a crucial role in their wellbeing, with malnutrition accounting for (45%) of all deaths among children under five years of age and

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stunting development among another 165 million⁽⁵⁾. With the positive success of various programs for child protection, more children reach school age (ages 6-12)⁽⁶⁾. Unfortunately, minimal attention was paid to school-age children's health and nutritional status, especially in developed countries with a greater focus on enhancing their access to education⁽⁷⁾.

However, undernourished and obese school children may struggle to meet their maximum cognitive potential with an eventual decline in school academic achievement and later in adulthood, low job ability^{(8),(9),(10)}. Hundreds of millions of children in urban areas of the world are growing up in the midst of poverty and deprivation, with the rising incidence and complications of childhood malnutrition⁽¹¹⁾. Some socio-demographic features such as age, gender and order of birth have also been found to affect their health and nutritional status⁽¹²⁾.

Methodology

This part will present the methodology of the current study and all numerous stages that passed through, from the beginning of its approval and ending with the analysis of its collected data.

Design of the study: A descriptive design study was used to get the stated objectives the period of one month (from the first of January, 2020 to the first of February, 2020).

Administrative and Ethical Arrangements: Before the gathering of the data and formal administrative permissions, the researcher was obtained to conduct the study.

1. The researcher obtains ethical approval from the Ethical Researcher Committee, University of Babylon/Faculty of Nursing.
2. The Central Statistical Organization has approved the study tool.

Ethical considerations: This study was accepted by the Faculty Nursing/University of Babylon. Several strategies were utilized to protect the responder's rights, who agreed to participate in this study. Next, verbal, oral consent of samples was obtained before the questionnaire was administered. The samples were told of the study intent and that they were entitled to refuse to participate. It has also been told the samples that they should refrain from answering any questions and can terminate at any time.

The setting of the study: The study was conducted in Altatbiqat primary school and 14 tmmuz primary school at Hilla city center.

Population and sampling plan: This quantitative study using a descriptive correlational design to assess Parent's Knowledge upon Nutritional Status of Primary School Children toward low-income households in Al-Hilla city. A convenience sample of (n=100) consenting parents. Data were selected through the period of one month (from the first of January, 2020 to the first of February, 2020).

The Instrument of the study: The questionnaire that is used in this study contains two parts as the following:

Part 1/A. Includes the Child's demographic information, which consists of (4) items that include age, class, Gender, number of brothers.

Part 1/B. Knowledge of Parent demographic information, which is consisted (educational level of mother and educational level of a father, monthly income, number of family members and Residence).

Part 2: Feeding Aspect According B.M.I consist of (6 Items).

Part 3: Food Choosing for Parents consist of (17 Items).

Rating and scoring:

The study instrument is rated on: A three-level Likert scale was used for knowledge items to measure the responses (Important, Kind of important and Not Important) and all statements are scored as 3= Important, 2= Kind of important and 1= Not Important, 3 represents the high -value scale.

The validity of the questionnaire: A preliminary copy of the questionnaire was sent to (10) experts. Responses from the expert suggested that slight changes needed to be made to some items. This adjustment was made according to their recommendations, few items needed to be omitted and others were added according to expert notice.

Statistical Data Analysis: Various statistical method were used to interpret and test the study findings using the Statistical Package of Social Sciences (SPSS) version 25 and Microsoft Excel (2016). All continuous

quantitative variables and the generated overall knowledge scores were tested for normality distribution and all were followed by the statistical normal distribution.

Results

Table (1): Nutritional Status, according to B.M.I.

| Variables | Group | Frequency | Percentage |
|------------------------------------|-------------------|-----------|------------|
| Weight | Less than normal | 15 | 15 |
| | Normal | 83 | 83 |
| | Obese | 2 | 2 |
| | Excessive obesity | 0 | 0 |
| | Total | 100 | 100 |
| High | Normal | 84 | 84 |
| | Tall | 10 | 10 |
| | Short | 6 | 6 |
| | Total | 100 | 100 |
| Is he/she have breakfast? | Yes | 93 | 93 |
| | No | 7 | 7 |
| | Total | 100 | 100 |
| Is breakfast at home or at school? | Home | 91 | 91 |
| | School | 9 | 9 |
| | Total | 100 | 100 |
| Is he/she have any fruits daily? | Yes | 87 | 87 |
| | No | 13 | 13 |
| | Total | 100 | 100 |
| Number of meals daily | Less than three | 5 | 5 |
| | Three | 82 | 82 |
| | More than three | 13 | 13 |
| | Total | 100 | 100 |

Table (3) indicated that most of the sample with normal weight of 83% and tall 84%.

Table (2): Point of view about food choices by parents(total score)

| | Group | F. | % |
|---|-------------------|----|----|
| Point of view about food choices by parents | Not Important | 16 | 16 |
| | Kind of important | 21 | 21 |
| | Important | 63 | 63 |
| | | | |

F :Frequency % :Percentage

Table (3) shows that most families about 63% point of view about food choices that Important.

Table (3): Relationship between some variables in present study

| Demographic data | Rating | F | % | P-Value |
|---|-----------------------|----|----|---|
| Relationship between Education of mother and eating breakfast for child | Do not read and write | 8 | 8 | X ² =5.895 N.S=.435 Df=6 |
| | Write read and | 17 | 17 | |
| | Primary school | 31 | 31 | |
| | Middle school | 16 | 16 | |
| | High school | 10 | 10 | |
| | Institute | 8 | 8 | |
| | Bachelor and more | 10 | 10 | |
| Monthly income and eating fruits | Enough | 26 | 26 | X ² =8.954 Sig=.01 Df=2 |
| | Not enough | 34 | 34 | |
| | Kind of enough | 40 | 40 | |

F : Frequency % :Percentage X²: chi-square-test. sig: significant df :degree of freedom, N.S: not significant

The table (4) shows the relationship between some variables in the present study. Regarding education of mother and eating breakfast for child this table reveals that is no relationship them. (P-value = 0.435) at the ($p \leq 0.05$) level of significance. In respect, monthly income and eating fruits the result shows that relationship between them. (P-value = 0.01) at the ($p \leq 0.05$) level of significance.

Discussion

School-age children are unable to meet their needs with the necessary nutrients that lead to building a fully developed body because unhealthy lifestyle neglects low-income households to their needs. Nevertheless, our study children's nutritional status was especially optimal, in line with the other researchers^{(13),(14)}.

Many studies were done in Islamabad and Abbottabad showed gross malnutrition in school children^{(15),(16)}. In the present study, most of the children, 83% were in optimal nutritional status and had sound skeletal growth despite their society and economic status. These results are in disagreement with the results of Fisher and Birch⁽¹⁷⁾. They indicated that parents influence the development of children's eating habits, not only through the foods that they make available to children, but also through their eating patterns, mealtime activity and child-feeding activities. Child-feeding habits of parents are correlated with eating patterns of children, including different eating styles, food intake and preferences and energy intake control.

In this study, there was no a relationship between having breakfast for children and the educational level of mothers. This result disagrees with Al-Shookri in Oman, who revealed that there was a positive correlation between children's dietary food intake scores and the mothers' level of education which nutritional knowledge was due to dietary intake, which the importance of the fact that nutrition-related education and information for mothers can improve their off spring's dietary intake⁽¹⁸⁾. Finally, the data analysis was showed that relationship between monthly income of father and eating fruits.

Conclusions

1. All of the children were in the 5th class.
2. Most of children with normal weight.
3. Most of children have breakfast daily.
4. Most of the children have three meals daily
5. Most of mother choose easy to prepare food for her child.

6. Most of mother choose rich protein food for her child.
7. Families' ability to provide and choose suitable and healthy food for their child its good.
8. Recommendations
9. The study recommends the following:
10. Nutritional programs training for teachers and parent
11. Create a nutritional assessment database based on school policy at all primary schools in Hilla City.
12. Supply of material for calculating height and weight in schools.
13. Group Calculator by using a measurement system to control on BMI.
14. Making a health education pyramidal food guide.

Ethical Clearance: The Research Ethical Committee at scientific research by ethical approval of both environmental and health and higher education and scientific research ministries in Iraq.

Conflict of Interest: The authors declare that they have no conflict of interest.

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