Nutritional Assessment of Children living in Slums Area of Maharajpur Village of Gwalior City

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Abstract

Slum’s children had less amount of RDA of nutrients in their daily diet. This could be due to several factors like illiteracy, poor, lack of knowledge, effect of surrounding environment. Thus, nutritional education should be address family as a whole. Nutrition education should focus on communication for behavioral change. The nutrition-related activities need to be based on qualitative research that has identified cultural and institutional constraints to good nutrition, detrimental attitudes and practices toward food and eating behavior. With creative thinking, nutrition and health-related activities can be incorporated into group activities, but needs to be perceived to be relevant to their lifestyles rather than imposed. Thus, adequate knowledge and trainings should be given through educating them so that they can get uplift their living condition.

Key words: Nutritional education, attitudes, lifestyles, slums

Introduction

Food is very essential for survival of all living being. It gives all essential nutrients for growth and provides immunity against all diseases.

Thus, the dietary habits are essential to keep fit for all human [1, 2]. Children of Maharajpur village of Gwalior district were usually given vegetables and fruits grown on forest land. The Kharwar people of Bihar not only grow cereals and small millets but also grow mahua.

Therefore, it indicates that people depend on forest for their food. The present study highlights the food consumption by children of 10-15 years of Maharajpur village of Gwalior district. School age is considered as a dynamic period of growth and development because children undergo physical, mental, emotional and social changes. In other words the foundations of good health and sound mind are laid during the school age period. Hence the present study was formulated with the objective, to assess and find the major socio-economic correlates of nutritional status in school-age children. Under nutrition in childhood was and is one of the reasons behind the high child mortality rates observed in developing countries. Chronic under nutrition in childhood is linked to slower cognitive development and serious health impairments later in life that reduce the quality of life of individuals. Nutritional status is an important index of this quality. In this respect, understanding the nutritional status of children has far-reaching implications for the better
development of future generations. Growth monitoring is universally used to assess nutritional status, health and development of individual children, and also to estimate overall nutritional status and health of populations. Compared to other health assessment tools, measuring child growth is a relatively inexpensive, easy to perform and non-invasive process.

Geographical relocation from rural areas to urban localities will expose migrants to new environmental challenges. Urban slum dwellers are exposed to poor environmental conditions (overcrowding, poor quality drinking water and sanitation, no removal of waste). Ignorance and difficult conditions of life in the slums are likely to result in improper food habits, low health care use and hygiene awareness and lack of knowledge of the origin of sickness and proper measures for the cure. The situation is further worsened due to lack of necessary health centers, medicines, and health care personnel. Children living under such conditions are at especially high risk for health and nutritional problems.

**Materials and Methods**

Two hundred children were selected for study. Children of 100 families of Maharajpur village of Gwalior were taken for present study. The samples were drawn by random method. Including 100 boys and Girls between the age of 10-15 years. These questions were asked as per interview schedule in order to know their food habits. On the basis of food take their nutritional level was assessed. Further, nutrient intake level was compared against the Recommended Daily Allowance (RDA) for Indian Children. The findings of the study are presented in this paper

**Results and discussion**

The nutrition level of children living in slums area is not the same throughout the year. It depends on the availability of food in the market and capacity to afford to buy it. It is recommended to take food at least three times a day i.e. Breakfast, lunch and dinner. But it is observed that children do not take breakfast. They have only availability of food in lunch time i.e. non/afternoon and in night (dinner). Most of the children had cereal (rice or chapatti) with salt or left over any vegetables. Usually, children had turdal and chapatti in lunch and same menu in the dinner. Most of the families same menu is repeated

**Table: 1. Nutrient intake by children of school going age.**

<table>
<thead>
<tr>
<th>Nutrients</th>
<th>&lt;40% RDA</th>
<th>40-50</th>
<th>50-60</th>
<th>60-70</th>
<th>70-80</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protein</td>
<td>70.2</td>
<td>15.0</td>
<td>2.1</td>
<td>1.9</td>
<td>1.0</td>
</tr>
<tr>
<td>Fat</td>
<td>58.2</td>
<td>18.0</td>
<td>2.0</td>
<td>13.2</td>
<td>11.2</td>
</tr>
<tr>
<td>Energy</td>
<td>75.3</td>
<td>17.1</td>
<td>0.5</td>
<td>0.5</td>
<td>0.3</td>
</tr>
<tr>
<td>Calcium (mg)</td>
<td>58.0</td>
<td>18.3</td>
<td>2.1</td>
<td>13.3</td>
<td>11.0</td>
</tr>
<tr>
<td>Iron (mg)</td>
<td>90.2</td>
<td>3.0</td>
<td>1.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Carotene (I.U)</td>
<td>70.1</td>
<td>3.0</td>
<td>3.2</td>
<td>16.1</td>
<td>13.5</td>
</tr>
<tr>
<td>Thiamine (mg)</td>
<td>33.1</td>
<td>35.5</td>
<td>13.7</td>
<td>8.1</td>
<td>7.2</td>
</tr>
<tr>
<td>Riboflavin (mg)</td>
<td>93.0</td>
<td>1.0</td>
<td>0.0</td>
<td>0.2</td>
<td>0.1</td>
</tr>
<tr>
<td>Ascorbic acid (mg)</td>
<td>77.4</td>
<td>4.2</td>
<td>8.1</td>
<td>7.5</td>
<td>4.4</td>
</tr>
</tbody>
</table>
again and again. Sometime chapatties are prepared in the morning and only freshly cooked vegetable was served with chapatti. Occasionally, millets purchased from market and consumed from time to time as wheat production was low or not available at affordable cost.

In summer, families living in slums area usually prepared rice and add a little of salt for test and eat it as food whether it is as lunch or dinner.

This food habits change when rain starts in the month of June-July because families get fresh vegetables in the market with affordable cost. Some families were also growing vegetables on their land for self consumption. Thus, it is clear that families and children have a unique food status according to season.

The average nutrient status of slumps children per day was calculated for continuous three days. Collected data were compared with the recommended daily allowance (RDA) for Indian Children and is tabulated in Table 1.

It is found that no children get equal to or more than the recommended Daily Allowance (RDA). The consumption of nutrients by children of slums is riboflavin (93%), Iron (90.2), ascorbic acid (77.4%), energy (75.3%), protein (70.2%), carotene (70.1%), fat (58.2), calcium (58.0%), and thiamine (33.1%). These are less or less than 50% of RDA.

Thirty six percent (35.5%), and fourteen percent (13.7%), sixteen percent (16.1%) sixteen percent of slum’s children were able to receive, thiamine, and carotene of 40 to 50, 60 to 70, 70 to 80 percent of recommended dose of allowance respectively. High carotene could be supplemented by eating wild fruits and vegetables Fetid Cassia in their diet. Similrly, high thiamine consumption were found due to the consumption of foods namely; chakwar and konar in their diet. It indicates that childrens living in slums area were found deficient in essential nutrients in their daily diet. Consequently, they suffer from sever diseases and had less immunity level as compare to the children living in urban areas. The nutritional status, prevalence of stunting and underweight was highest in age group 11 yrs to 13 yrs \[3\]. Further they reported that all illnesses are more common among girls, but this gender difference is statistically significant only for anemia and rickets. Mal-nutrition was found in children whose mother's education was [less than or equal to] 6th standard and children with working mothers. This supports the results of our study.

References