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METHODS TO PREVENT MALNUTRITION AMONG INFANTS AND CHILDREN

ARUN SURENDRAN

ASSOCIATE PROFESSOR

T JOHN COLLEGE OF NURSING, BANGALORE

ABSTRACT

The purpose of article is to enhance the knowledge related to malnutrition among the children and infants and the importance of balanced diet, the different types of preventive methods that can be implemented in the daily diet plan so that it will help the infants and children to overcome the health issues related with malnutrition. Children need the right foods at the right time to grow and develop to their full potential needs their cognitive development as well as intellectual development.

INTRODUCTION

Malnutrition is the condition that develops when the body is deprived of vitamins, minerals and other nutrients it needs to maintain healthy tissues and organ function. Malnutrition occurs in people who are either undernourished or over nourished.

In the United States, more children suffer from malnutrition due to dietary imbalances than due to nutritional deficiencies. Under nutrition occurs when not enough essential nutrients are consumed or when they are excreted more rapidly than they can be replaced. Over nutrition occurs in people who eat too much, eat the wrong things, don't exercise enough or take too many vitamins or other dietary replacements. The risk of over nutrition is increased by being more than 20 percent overweight or consuming a diet high in fat and salt.

About 1 percent of children in the United States suffer from chronic malnutrition. Malnutrition among under-five children and school going children is a major public health problem in India each year approximately 2.3 million deaths among 6-60 months aged children in developing countries are associated with malnutrition, which is about 41% of the total deaths in this age group.

TYPES OF MALNUTRITION

- **Severe acute malnutrition (SAM):** This type of malnutrition is commonly associated with severe food insecurity during disaster, conflict, war failure of rain or crops, or other natural or man-made catastrophes. SAM is defined as infants and children who are 6–59 months of age and have a mid-upper arm circumference (MUAC) less than 115 mm, and/or a weight-for-height/length less than -3 Z-scores of the WHO Child Growth Standards median, and/or have

bilateral pitting oedema.

- **Moderate malnutrition:** Moderate malnutrition is far more widespread and less easy to recognize than severe malnutrition. It is defined as an MUAC ≥ 115 mm to < 125 mm and/or weight-for-age between -3 and -2 Z-scores below the median of the WHO child growth standards.
- **Childhood obesity:** Childhood obesity is one of the most serious public health challenges of the present day. In 2015 the number of overweight children under the age of five, is estimated to be over 42 million. Obesity usually continues into adulthood and greatly increases the risk of diabetes, hypertension, heart attacks, and stroke.
- **Anemia:** Anemia is defined as less than 11 g/dl, unless severe anemia as below 8 g/dl. Anaemia is usually caused by insufficient iron in the diet.
- **Vitamin A deficiency:** An estimated 250 million preschool children worldwide are vitamin A deficient. An estimated 250,000 to 500,000 vitamin A-deficient children become blind every year, half of them dying within twelve months of losing their sight.
- **Zinc deficiency:** Zinc deficiency is often associated with Vitamin A deficiency and lowers resistance to diarrheal diseases and acute respiratory infections.
- **Iodine deficiency:** Iodine deficiency is still the commonest cause of mental impairment worldwide, and continues to affect people in 54 countries. Goiter is the most obvious sign of iodine deficiency and is most commonly seen in women. The most dangerous effect, sometimes known as cretinism, is found in children born to iodine-deficient mothers. These children will typically be deaf, dumb, slow, have a 'puffy' appearance, and a tendency to constipation.

METHODS TO PREVENT MALNUTRITION

- **Training and Education within the Community:** Training, coaching, and direction on the best nutritional practices are all part of mentoring community groups so that the individuals can become knowledgeable and begin influencing the attitudes of other community members. The appropriate quality and quantity of nutrition must be taught to mothers and other caregivers, and a range of calorie-dense foods should be encouraged.
- **Enhanced Mid-Day Meal:** Up to one-third of a child's daily nutritional requirements are met by school feeding programmes' healthier meals. These programmes were started by the Government to eliminate child malnutrition in India. Children from lower-income households must eat the meals provided by feeding programmes like the Midday Meal Scheme (MDMS) in order to survive.
- **Encourage breast feeding:** Low birth-weight or preterm babies should be fed their mother's own breast milk. The mother may need extra support to initiate breastfeeding or expressing breast milk as soon as possible after birth. Because low birth-weight babies can sometimes get easily tired when feeding, it is particularly important that the mother feeds her baby as often as possible, responding to demand and at least 8 feeds during 24 hours, during the day and night.
- **Balanced diet plan:** Healthy eating in childhood reduces your child's chance of developing health problems as they get older. A healthy, balanced diet includes foods from all 5 food groups: fruit, vegetables, grains, proteins and dairy.

Consider these nutrient-dense foods:

Protein: Choose seafood, lean meat and poultry, eggs, beans, peas, soy products, and unsalted nuts and seeds.

Fruits: Encourage your child to eat a variety of fresh, canned, frozen or dried fruits.

Vegetables: Serve a variety of fresh, canned, frozen or dried vegetables. Choose peas or beans, along with colorful vegetables each week.

Grains: Choose whole grains, such as whole-wheat bread or pasta, oatmeal, popcorn, quinoa, or brown or wild rice.

Dairy: Encourage child to eat and drink fat-free or low-fat dairy products, such as milk, yogurt and cheese.

Ages 2 to 4: Daily guidelines for girls

Table: 1

| Calories | Protein | Fruits | Vegetables | Grains | Dairy |
|--|----------------|---------------|-------------------|---------------|---------------|
| 1,000 to 1,400, depending on growth and activity level | 2 to 4 ounces | 1 to 1.5 cups | 1 to 1.5 cups | 3 to 5 ounces | 2 to 2.5 cups |

Ages 2 to 4: Daily guidelines for boys

Table: 2

| Calories | Protein | Fruits | Vegetables | Grains | Dairy |
|--|----------------|---------------|-------------------|---------------|---------------|
| 1,000 to 1,600, depending on growth and activity level | 2 to 5 ounces | 1 to 1.5 cups | 1 to 2 cups | 3 to 5 ounces | 2 to 2.5 cups |

Ages 5 to 8: Daily guidelines for girls

Table: 3

| Calories | Protein | Fruits | Vegetables | Grains | Dairy |
|--|----------------|---------------|-------------------|---------------|--------------|
| 1,200 to 1,800, depending on growth and activity level | 3 to 5 ounces | 1 to 1.5 cups | 1.5 to 2.5 cups | 4 to 6 ounces | 2.5 cups |

Ages 5 to 8: Daily guidelines for boys**Table: 4**

| Calories | Protein | Fruits | Vegetables | Grains | Dairy |
|--|-----------------|---------------|-------------------|---------------|--------------|
| 1,200 to 2,000, depending on growth and activity level | 3 to 5.5 ounces | 1 to 2 cups | 1.5 to 2.5 cups | 4 to 6 ounces | 2.5 cups |

Ages 9 to 13: Daily guidelines for girls**Table: 5**

| Calories | Protein | Fruits | Vegetables | Grains | Dairy |
|--|----------------|---------------|-------------------|---------------|--------------|
| 1,400 to 2,200, depending on growth and activity level | 4 to 6 ounces | 1.5 to 2 cups | 1.5 to 3 cups | 5 to 7 ounces | 3 cups |

Ages 9 to 13: Daily guidelines for boys**Table: 6**

| Calories | Protein | Fruits | Vegetables | Grains | Dairy |
|--|-----------------|---------------|-------------------|---------------|--------------|
| 1,600 to 2,600, depending on growth and activity level | 5 to 6.5 ounces | 1.5 to 2 cups | 2 to 3.5 cups | 5 to 9 ounces | 3 cups |

Ages 14 to 18: Daily guidelines for girls**Table: 7**

| Calories | Protein | Fruits | Vegetables | Grains | Dairy |
|--|-----------------|---------------|-------------------|---------------|--------------|
| 1,800 to 2,400, depending on growth and activity level | 5 to 6.5 ounces | 1.5 to 2 cups | 2.5 to 3 cups | 6 to 8 ounces | 3 cups |

Ages 14 to 18: Daily guidelines for boys
Table: 8

| Calories | Protein | Fruits | Vegetables | Grains | Dairy |
|--|-----------------|---------------|-------------------|----------------|--------------|
| 2,000 to 3,200, depending on growth and activity level | 5.5 to 7 ounces | 2 to 2.5 cups | 2.5 to 4 cups | 6 to 10 ounces | 3 cups |

CONCLUSION

The article reveals the knowledge regarding the malnutrition among children and its adverse effects and its impacts on childhood also the different methods and ways to prevent the malnutrition among infants and children.

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