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Mandalaju Pooja

Research Scholar, Department of Food Nutrition and Public Health, Sam Higginbottom University of Agricultural, Technology and Sciences, Prayagraj, Uttar Pradesh, India

Verma Anisha

Assistant Professor, Department of Food Nutrition and Public Health, Sam Higginbottom University of Agricultural, Technology and Sciences, Prayagraj, Uttar Pradesh, India

A review on problems during weaning

Mandalaju Pooja and Verma Anisha

Abstract

The introduction to solid feeding and the gradual replacement of milk by solid food as the main source of nutrition is the process known as weaning. Weaning practices and the problems of weaning foods are low nutrient density and high bulk of the weaning foods, early introduction of solid foods, and unhygienic practices predispose infants to malnutrition, growth retardation, infection, and high mortality. Multi-approach strategies, involving the development of improved recipes and processing, nutrition education, access to safe water, good sanitation, economic empowerment of women, reduction in workload, and promotion of breastfeeding, are recommended solutions to the problems. The WHO 2001 global recommendation is a one size fits all approach to weaning, an approach which may not take sufficient account of the special needs of some infants and fails to allow for the different problems encountered in the industrialised nations compared with economically developing countries. Introducing solid food to these infants earlier than this is weak. Infants should be managed individually according to their needs. The period in a child's life when he shifts progressively from exclusive breastfeeding to a mixed type of food, ultimately to the adult type, is a crucial one. This transitional period of the weaning period, has been recognized as being potentially dangerous in several cultures. The process of weaning is perhaps of minor importance in populations and communities with good nutrition and good standards of infant feeding, but is of major concern in communities where incomes are low, knowledge about weaning practices is not always correct and where environmental sanitation and standards of personal hygiene are far from satisfactory. Depending upon the culture, this crucial period lies between the 4th and 24th months of life.

Keywords: Children, weaning problems, breast feeding, food nutritional, supplementary feeding

Introduction

The idea of weaning is to introduce your baby to different flavours and taste which adds nutrition to his diet. It is recommended to exclusively breastfeed your baby for 6 months. Good nutrition is fundamental to a child health but its importance during the early years increases manifold as the weight gain during the first year is dramatic, from 3 kg at birth to 10 kg at the age of one year. Along with the physical growth, there are qualitative changes in child's behaviour and social relationships that can be affected by the nutritional status of the child. In order to fulfil the nutritional requirements of a rapidly growing child, addition of semi-solid and solid foods is essential for breast and milk formula-fed babies. WHO now recommends the introduction of complementary foods around the sixth month of life, instead of between the fourth and sixth month, as previously recommended. Weaning is described as the transitional period starting from 4 months onwards till the end of second or even third year in certain cultures so that the infant's diet progressively changes from milk alone to semi-solids and finally to the adult family food. During the weaning period, underfeeding is one of the common causes of failure to gain weight. The quantity, type and choice of food items may not be ideal for the adequate growth of the child. This encompasses infrequent feeding, use of expensive commercial foods given in diluted form and improper food preparation. (WHO, 2001)

Breastfeeding is a significant predictor of health outcomes. For infants, never breastfeeding or early weaning is associated with increased risks of diarrhoea, lower respiratory tract infection, sudden infant death syndrome, leukaemia, and type 1 diabetes. Among mothers, never breastfeeding or early weaning is associated with increased risks of breast cancer, ovarian cancer, diabetes, hypertension, and myocardial infarction. Based on these associations, all major medical organizations recommend 6 months of exclusive breastfeeding, with continued

Corresponding Author:

Mandalaju Pooja

Research Scholar, Department of Food Nutrition and Public Health, Sam Higginbottom University of Agricultural, Technology and Sciences, Prayagraj, Uttar Pradesh, India

breastfeeding through the infant's first year and beyond.

Weaning food is eaten

- Weaning from breastfeeding is the process of switching a baby's diet from breast milk to other foods and drinks.
- In developing countries, child malnutrition is common because infants at this stage of development need higher energy and protein to meet their increasing metabolic needs.
- Traditional weaning in simple words involves pureeing and mashing foods to make it a little easier for babies to swallow the solids. It begins with offering the child with different tasting foods using a spoon. The food initially is mashed or pureed enough for the child to be able to gulp it easy, transitioning from milk to solids.
- Actually, Nutrition in early life is the main determinant of healthy growth throughout childhood and health in adulthood. (Vishakha Singh, 2018)

Problems during weaning

1. If breast-feeding is stopped, suddenly, it can have psychological and nutritional effect on the young children.
2. Solid foods can cause diarrhoea, if prepared unhygienically or not digested properly.
3. If weaning foods are too poor to provide adequate nutrients, the children can develop malnutrition.
4. For some babies the breast-feeding may be sufficient for four months while others may feel hungry even after the breast feeding and may not gain weight. (Stuebe, Schwarz. *et.al.*, 2010)

Breast or bottle feeding can be considered prolonged after about 18 months of age, but delayed weaning is not always a problem. The older toddler who only occasionally nurses or drinks from a bottle does not necessarily need to be pressured into giving up the bottle or breast. Delayed weaning should be considered a problem only if it is causing one or more of the following types of harm:

- Refusal to eat any solids after 6 months of age.
- Anaemia confirmed by a routine screening test at 1 year of age.
- Tooth decay or baby-bottle caries.
- Obesity from over eating.
- Daytime withdrawal and lack of interest in play because the child is always carrying a bottle around.
- Frequent awakening at night for refills of a bottle.
- Inability to stay with a babysitter because the child is exclusively breast fed and refuses a bottle or cup. (Weaver L, *et al.*, 2002)

In a vast majority of situations nutrition problems start from the latter half of infancy to the second year of life. The pattern of malnutrition differs to some extent in urban and rural children. The main nutritional problems frequently encountered during the weaning period in rural and urban communities of India are

1. Energy-protein malnutrition
2. Iron deficiency anaemia
3. Vitamin A deficiency, and
4. Rickets.

Energy-protein malnutrition

Protein-energy undernutrition (PEU), previously called protein-energy malnutrition is an energy deficit due to chronic

deficiency of all macronutrients (which are proteins, fats and carbohydrates). Protein Energy Malnutrition (PEM) is a deficiency disease caused in the infants due to 'Food Gap' between the intake and requirement. PEM is particularly serious during the post- weaning stage and is often associated with infection. (Shah, P.M. *et al.*, 2010)

Iron deficiency anaemia

Iron-deficiency anaemia (IDA) presents a significant burden in infancy and childhood. Also, in infancy and early childhood is causally associated with growth and developmental delay. Iron deficiency anaemia (IDA) is a decrease in the total haemoglobin levels caused by a lack of sufficient iron. Iron deficiency anaemia among children during weaning is essential to identify malpractices toward feeding, weaning of infants which in turns, will reflect the causes of iron deficiency anaemia and malnutrition among infants and young children. (Shah, P.M. *et al.*, 2010)

Vitamin A deficiency

Severe forms of vitamin A deficiency or keratomalacia are common in young children.

Keratomalacia is thought to be associated with malnutrition due to poor weaning practices and manifests at 3 to 4 years of age. As survival rates for infants have increased, keratomalacia is being seen in children less than 6 months of age. (Shah, P.M. *et al.*, 2010)

Rickets

Rickets is one of the many nutritional deficiencies that could affect infants fed vegan or vegetarian diets. These diets are a public health concern requiring adapted information that suggests alternative formulas made from rice or soy proteins and adapted supplementation after weaning. The reason was prolonged breastfeeding from a vegetarian mother followed by a vegan diet for the infant after weaning. (Shah, P.M. *et al.*, 2010)

You have to experience some weaning problems during food introduction to your baby

Let us know about some common weaning problems of infants as listed below:

Allergy

As increased gut permeability, low levels of IgA and enzymatic immaturity put the infant at higher risk for allergy. Most frequently allergy causing foods are wheat, milk, egg and citrus fruits. Rice is probably the most hypoallergenic of the commonly eaten cereals. Consumption of wheat is best to delay until after the 6th month. (WHO, 2020) ^[7]

Refusal to take new food

If the child refuses to take new food, form of the food can be modified or mixed with the food that they like. And you should also try that same food after a week. Frequently, a child may spit out the first spoon of food but it doesn't mean that they dislike the foods, it can also happen due to swallowing problem. You may not get habituated to swallow non-liquid food; in that situation they may spit out the food.

Obesity or under weight

Too early and too much quantity of feeding or too concentrated foods can lead to overweight of the infant. When commercially processed foods are given, it may lead to obesity. Too less quantity of food and less concentrated foods

can lead to underweight. Bulky adult food, when consumed by infant gives satiety without meeting calorie requirement. This results in underweight of the child which also leads to many other problems like frequent illness, repeated diarrhoea and blood loss. (WHO, 2020) ^[7]

Current recommendations

At the present time, the Department of Health Recommendations remain, that for the majority of infants, weaning should commence at 4–6 months. However, Scientific Advisory Committee on Nutrition (SACN) recently endorsed the WHO resolution on exclusive breast feeding for six months. Importantly the committee added: “there should be some flexibility in the advice, but any complementary feeding should not be introduced before the end of 4 months”. (WHO, 2020) ^[7]

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