Child Malnutrition in India: Causes and Intervention Programmes
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ABSTRACT:

The future of nation depends on children so it is said that child is the mother/father of the nation. In present scenario it is compulsory to understand that investment in human resource development is essential for any nation. Malnutrition is biggest challenge for the growth of children in India. It is very unfortunate that India has various resources government’s schemes but rate of malnutrition and child mortality slightly decreases. India is still facing the problems of malnutrition and child mortality. There are two faces of malnutrition one under nutrition and another over nutrition. Under nutrition is subject to be more concern rather than over nutrition. Early childhood, that is the first six years constitutes the most crucial period in life, when the foundations are laid for cognitive, social and emotional language, physical/motor development and cumulative lifelong learning so it is essential to give proper nutrition and balanced diet to children and mother to prevent malnutrition.

Keywords: Neonate, Malnutrition, Infant, Mother, Nutrition, Beneficiaries, Poverty, Breastfeeding, Colostrums

Due to Malnutrition children became weak and their immune system became unable to fight with several diseases like diarrhoea, respiratory and skin infections and this can be cause of death. If we want to save the children, family should take initiative to decrease the level of Malnutrition within their family. This is very important to know that this situation can be very serious if the child has severe malnutrition.

A nationwide survey called the RSOC conducted by the ministry of women and child development in 2013-14 in league with Unicef showed that the proportion of underweight children in India was 29.4%, and . In India rapid economic growth can be observed there are no any significant change child malnutrition rates.
Poor socio-economic status, inadequate diet, lack of awareness about complementary feeding. Poor hygiene, poor social status, inadequate appetite, History of chronic diarrhoea, flatulence, abdominal distension, mal-absorption are major causes responsible for malnutrition. HIV infection is also the major cause of malnutrition in India. Malnutrition can be seen among children who belong to higher socio economic condition due to lack of awareness mother or family members does not know importance of nutrition and adequate diet for children.

While poverty is not the only cause of malnutrition, it is an important cause, not just because poor people may lack adequate food but also because the poor often have less time and resources to care for their children. Not surprisingly, the proportion of malnourished children among the lowest wealth quintile is significantly higher than the proportion of malnourished children among the highest wealth quintile. But the difference between the two extreme wealth quintiles seems to have narrowed over the past decade, the latest data suggest. The proportion of underweight children among the lowest wealth quintile declined 14.5 percentage points to 42.1% while the same proportion among the highest wealth quintile fell 1.1 percentage points to 18.6%, compared to the previous decade.

**CAUSES OF MALNUTRITION**

**Poverty.** Poverty is the root cause of malnutrition in India. The poor people cannot have nutritious food. Due to low income they cannot buy enough amount of food of the desired quality for meeting their children’s and family nutritional requirements in present time competing demands for non-food expenditure like clothing, mobile phone, mall culture, entertainment goes important rather than the cost of the expenditure on food.

**Growing population**–population growth is the biggest major cause of malnutrition in India.

Due to large families incidence of malnutrition become high. In India due to maximum population growth there is no improved agriculture production and this had led to uneven distribution of food.

Rapid succession of pregnancies adversely affects the nutritional status of mother. If the mother remains preoccupied with the care of a large sib ship; she is more prone to neglect her own health. Due to infections and under nutrition her fetus tends to be small and this is reflected in high incidence of low birth rate.
Feeding habits.-breast feeding is very nutritious for infant. Lack of exclusive breastfeeding for first 6 months makes child prone to early onset malnutrition. Often mothers think that her breast milk supply is not enough for her infant it cannot fulfill the requirement of nutrition.

In India there are lots of myth and irrational beliefs about the nutritional needs of infant.

Social factors-repeated pregnancies, inadequate child spacing, food taboo, broken homes and separation of child from her/his parents are the important social factors that may play a part in causes of malnutrition.

High pressure advertising of baby foods- Often urban educated working women discontinue breast feeding due to high High pressure advertising of baby foods manufacturers and social demands.

The National Family Health Survey (NFHS) had reported in 2005-06: the ratio of underweight children at 42.5%, and the ratio of stunted children at 48%. While the aggregate figures were reported by the government to the International Food Policy Research Institute (IFPRI) last year, leading to a dramatic improvement in India’s rank on the hunger index released annually by the institute, the ministry did not publish any details relating to the survey for a year after it was completed.

USUAL CLINICAL FEATURES

Hepatomegaly –The liver is enlarged with rounded lower margin and soft consistency in about one third of cases.

Change in hair.-The hair texture becomes change hair would be thin, dry, hypopigmented, straight, brittle, sparse.

Changes in skin- skin become change due to malnutrition. Skin would be look like old paint flaking off the surface of the wood, hyperpigmented patches can be appear in malnutrition.

Infections-Unfortunately children with malnutrition are prone to have infections like diarrhoea, respiratory and skin infections.

INTERVENTION TO ADDRESS MALNUTRITION

Pre-Natal and Post-Natal Care

The nutrition situation of children is largely due to the situation of women. NFHS-3 indicates that 36 per cent of Indian women are chronically undernourished and 55 per cent are anaemic. Recent data form Bihar and Madhya Pradesh shows that girls represent up to 68 per cent of the children admitted to programmes for the severely malnourished.

In India pre natal care is highly neglected. Prenatal care is very important to keep child and mother healthy. During pregnancy and lactation neutrinos requirements increased and foetus/infants depends on mother to meet this requirements. Adequate intake of iron and nutritional food can reduce the chance of low birth rate.

Antenatal check up, intake of folic Acid and iron capsules. And proper balance diet, tetanus injections delivery in health center, and birth spacing post natal care can prevent low birth and malnutrition.
Post natal care of mother is very necessary. Family should give proper and adequate diet to mother to first six months.

**EXCLUSIVE BREASTFEEDING**

**Colostrums best gift for child from mother**

Colostrums is sticky thick and yellowish fluid which secreted for 2-5 days after birth. It is first milk which protect and immunizes neonate from most of the bacteria and viruses.

It is very rich and prevent neonatal and infant mortality and morbity. The antibody of colostrum provide safety from infection and helps to boost immune system. Exclusive breastfeeding means only breast milk for first six month nothing else not even water, jamsguttii, honey, formula milk. Breast milk is very digestive due to it has a mild laxative effect. Breastmilk is easiest way very hygienic source of nutrition for neonate and infant for first six month.

**Complementary food after six month**

When infant completed six month breast milk cannot fulfill the nutritional requirements of infant in this age semi-solid food should be given along with breast milk.

- Nutritional supplement should be introduced in diet after age of 6 months
- Soft and hand mashed food
- Fresh homemade food like the staple cereal of the family should be used to make the first food for an infant. Porridge can be made with suji (semolina), broken wheat, atta (wheat flour) ground rice, ragi, millet etc. by using a little water or milk. Adding sugar or jiggery. Traditional foods like mixed foods like khichidi, dalia, sujikheer, upma, idli, dokhla, chawal daalsattu.
- Milk, meat eggs or foods whatever family can afford. Milk, curd, lassi, egg, fish and fruits and vegetables are also important to help in the healthy growth of infant and malnourished child. Green leafy vegetables, carrots, pumpkin and seasonal fruits like papaya, mango, chikoo, banana, are important to ensure good vitamin A and iron.
- Ghee or oil is important to add in food of infant.

**Complete and Timely immunization**

Timely and complete immunization protect children from several diseases. For every child it is necessary to receive all primary immunization and booster doses.

Iron Folic-Acid and Vitamin A supplement.

Vitamin A is very essential to make eyesight and immunity strong it is very necessary to give Vitamin A rich food as well as vitamin A supplement. Nine doses of supplement should be given to children.

Food rich Iron, and iron supplement is necessary for child growth.

De-worming in twice a year prevent child from infections.
Appropriated and Frequent and feeding for children during and after illness
Child should be feed with love and care
Due to infections like diarrhoea, respiratory affects nutritional status and body losses fluids and nutrients. So it is very essential to follow the golden rule that breast feeding should not be stop at any cost. Small digestive meal should be given.
It is very necessary to maintain hygiene to prevent infections and hygiene can be maintain trough adopting hand washing habits.access the safe drinking water and Safe disposal of stool.
Adequate fluid should be given to child.

**Intervention programme to reduce malnutrition in India**

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<th>GOVERNMENT PROGRAMMES TO ADDRESS UNDERNUTRITION</th>
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<td><strong>TARGET GROUP</strong></td>
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<tr>
<td>Pregnant and Lactating Mothers</td>
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<td>Children (0 – 3 years)</td>
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| TARGET GROUP | SCHEMES | MAJOR SERVICES FROM SCHEMES |
| Children (0 – 3 years) | ICDS | ICDS: Non-formal preschool education, growth monitoring, supplementary nutrition, referral, health education and counselling for care givers. |
| | RCH-II, NRHM | |
| | Rajiv Gandhi National Creche Scheme | |
| | Total Sanitation Campaign (TSC)/Nirmal Bharat Abhiyan (NBA) National Rural Drinking Water Programme (NRDWP) | |

| School going children (6 – 14 years) | Mid-Day Meal (MNM), Sarva Shiksha Abhiyan (SSA) | Mid-day meal: Hot cooked meal to children attending school. SSA: Support knowledge dissemination on nutrition by inclusion of Nutrition related topics in syllabus and curricula for formal education, school health checkup, mid-day meal. |

| Adolescent Girls (11 – 18 years) | Rajiv Gandhi Scheme for the Empowerment of Adolescent Girls (RGSEA), Kishori Shakti Yojana, NRHM | RGSEA: Supplementary Nutrition, Iron Folic Acid supplementation, vocational training of adolescent girls. NRHM: Weekly iron and folic acid supplementation |
| | Total Sanitation Campaign (TSC)/Nirmal Bharat Abhiyan (NBA), National Rural Drinking Water Programme (NRDWP) | |

| TSC/NBA: Access to sanitation facilities |
| NRDWP: Access to safe drinking water |
The Government of India is making concerted efforts to reduce the prevalence of malnutrition

I.C.D.S

In the country, the scheme of Integrated Child Development Services (ICDS) was launched in 1975. The aim of I.C.D.S. are to increase the health and nutritional status of children below the age of six years and lay focus to decrease the incidence of mortality, morbidity, malnutrition and school dropouts. Foundation for the proper psychological, physical and social. Attain better coordination between policy and implementation among various departments to promote child development. Improve the competency of the mother to take care the normal health and nutritional requirements of child, through proper health and nutrition. The beneficiaries of the programme are children below 6 years, pregnant and lactating mothers and women in the age group 15-44 years. ICDS provides 300 kilocalories (with 8-10 grams of protein) every day to every child below 6 years of age.

I.C.D.S. provides services like Regular Health Check-ups, Immunization, Growth Promotion and Supplementary Feeding, Referral Services, Pre-school Education and early Childhood Care, Nutrition and Health Education and awareness.

The cooked items are being distributed to ICDS beneficiaries with the cost value of Rs. 2/per beneficiaries per day which are Vegetable Pulao, Vegetable Kichri, Dalia (Sweet/namkeen) Rice, Weaning food for children in the age group of 7 Month to One year.

**SERVICES PROVIDED THROUGH ICDS**

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<th>SERVICES</th>
<th>TARGET GROUP</th>
<th>SERVICES THROUGH</th>
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<tbody>
<tr>
<td>Supplementary Nutritional Support (includes child growth monitoring and promotion)</td>
<td>Children below 6 years; pregnant and lactating mothers</td>
<td>ANM/ASHA, AWW</td>
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<tr>
<td>Pre-School Education</td>
<td>Children 3-5 years</td>
<td>AWW</td>
</tr>
<tr>
<td>Nutrition &amp; Health Education</td>
<td>Women (15-45 yrs)</td>
<td>ANM/ASHA, AWW</td>
</tr>
<tr>
<td>Immunization</td>
<td>Children below 6 years; pregnant and lactating mothers</td>
<td>ANM/ASHA, AWW</td>
</tr>
<tr>
<td>Health Check-up</td>
<td>Children below 6 years; pregnant and lactating mothers</td>
<td>ANM/ASHA, AWW</td>
</tr>
<tr>
<td>Referral</td>
<td>Children below 6 years; pregnant and lactating mothers</td>
<td>ANM/ASHA, AWW</td>
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The last three services are related to health and are provided in convergence with the Ministry/Department of Health and Family Welfare through NFHM and Health system.

**Mid-Day Meal Scheme**

A Centrally Sponsored Scheme Mid-Day Meal Scheme was launched in 15th August 1995 to improve Nutritional levels, increase enrollment, retention and attendance among children studying in Government, Local Body and Government-aided primary and upper primary schools and the Centres run under Education Guarantee Scheme (EGS)/Alternative& Innovative Education (AIE) and National Children Labour Project (NCLP) schools of all
areas across the country. MDM is also served in drought-affected areas during summer vacation also. It was further extended in 2002 to cover not only children in classes I -V of Government, Government aided and local body schools, but also children studying in EGS and AIE centres. Central Assistance under the scheme consisted of free supply of food grains @ 100 grams per child per school day, and subsidy for transportation of food grains up to a maximum of Rs 50 per quintal.

To achieve the objectives of the Scheme, the guidelines prescribe the following nutritional content in the mid-day meal:

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<th>Components</th>
<th>Primary Calories</th>
<th>Upper Primary Calories</th>
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<tbody>
<tr>
<td>Calories</td>
<td>450 Cal</td>
<td>700 Cal</td>
</tr>
<tr>
<td>Protein</td>
<td>12 gms.</td>
<td>20 gms.</td>
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<tr>
<td>Micro-nutrients</td>
<td>Adequate quantities of micro-nutrients like Iron, Folic Acid, Vitamin-A etc.</td>
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The component-wise break up of above nutrition value of food items constituting Mid-Day Meal (MDM), both for primary and upper primary, are as under:-

The Balwadi Nutrition Programme

The Balwadi Nutrition Programme launched in 1970-71 Balwadi Nutrition Programme run through Balwadis and day-care centers which are being operated by the five national voluntary organisations. Almost five thousand Balwadis implementing the programme. It is a non-expanding and non-plan activity of the government of India. Aim of this programme to supply about one-third of the calorie and half of the protein requirements of the pre-school child as measure to improve nutritional and health status. The Beneficiaries of this programme are pre-school children between the age of 3 to 5 years. Priority is given to children belonging to low income group

National Nutrition policy, 1993 was introduced to combat the problem of under - nutrition. It aims to address this problem by utilizing direct (short term) and indirect (long term) interventions in the area of food production and distribution, health and family welfare, education, rural and urban development, woman and child development etc.

CONCLUSION

Malnutrition is one of the biggest problems of contemporary India. I.C.D.S programme has been passed almost 40 years the objective of ICDS is to decrease the level of Malnutrition but after big efforts this programme could not full fill its objectives. Role of Adequate nutrition is very important in child growth under nutrition and over nutrition comes under malnutrition causes of this is deficiency, imbalances to take protein, energy and other nutrients. Prevention is the best way to reduce mal nutrition. Government introduced various schemes, policies to curb the Malnutrition in India but to take benefits of these schemes it is essential to spread awareness about schemes among beneficiaries.
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