PREVALENCE OF MALNUTRITION IN CHILDREN BETWEEN ZERO TO FIVE YEARS WITH REFERENCE TO COIMBATORE CITY

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ABSTRACT

Malnourished children are more likely to become malnourished adults and they face increased risks of morbidity and mortality. In pace with the developing countries across the world regarding socio-economic and nutritional shift, India has also undergone remarkable improvement for the last ten years but under-nutrition had always remained as a notable public health problem. According to World Health Organization and National Family Health Survey, one-third of all children in India suffer from low height-for-age (stunting) and nearly half of the children from low weight-for-age(underweight). In South India, only few tribal based studies used to determine the prevalence of malnutrition among under-five children has been carried out, with paucity of data regarding prevalence of malnutrition obtained in Coimbatore city. The aim of the present review is to assess the burden of under-nutrition and over-nutrition, its determinants and strategies required to tackle the malnutrition among under-five children. Concerning methodology for this study, Questionnaire method is used for collecting the data. The target population for this study consists of mothers of children from zero to five years. The technique used in this research is Percentage analysis.

Keywords: Coimbatore city, Malnutrition, Prevalence, Under 5 years children.

INTRODUCTION

Malnutrition surrounded by under-five children is a major public health dilemma in India. This is reflected by the fact that the prevalence of under-weight children in India is among the uppermost in the world, and is nearly double that of Sub-Saharan Africa. It is also observed that the malnutrition quandary in India is a concentrated observable fact that is, a relatively small number of States, Districts, and Villages account for a high percentage of share of the malnutrition burden — only 5 states and 50% of villages description for about 80% of the malnutrition encumber. Every year, around 2.3 million deaths among 6-60 months aged children in emergent countries are associated with malnutrition, which is about 41% of the total deaths in this age group. Consequently, it is significant for the health system to detect malnutrition at an early stage for planning and implementing timely interventions at the community level. The World Bank Estimate that India is ranked 2nd in the world of number of children suffering from malnutrition after Bangladesh (1998), where 47% of the Children exhibit a degree of malnutrition. India is one of the fastest growing country in terms of population and economic growth rate, sitting at a population of about 1200 million (December 2010) and economy growing by 9% GDP growth rate from 2007-2008.

Infants born to youthful mothers who are not wholly developed are found to have low birth weights. The level of maternal nutrition during pregnancy can distress newborn body size and composition. Iodine-deficiency in mothers usually causes brain injury in their offspring, and some cases cause extreme physical and mental retardation. In 2011 UNICEF reported that thirty percent of households in the developing world were not consuming iodized salt, which accounted for 41 million infants and newborns in which iodine deficiency might still be prevented. Though, measurements of a child's growth provide the key information for the presence of malnutrition, weight and height measurements recognize kwashiorkor and an under estimation of the brutality of malnutrition in children. There were 821 million under nourished people in the world in 2018 (10.8% of the total population).This is a reduction of about 176 million people since 1990 when 23% were undernourished, but an increase of about 36 million since 2015, when 10.6% were under nourished. About one third of deaths in children are believed to be due to

under nutrition, although the deaths are rarely labelled as such. In 2010, it was estimated to have contributed to about 1.5 million deaths in women and children, though some estimate the number might be larger than 3 million. An additional 165 million children were estimated to have stunted growth from malnutrition in 2013.Under nutrition is more common in developing countries. Certain groups have higher rates of under nutrition, including women, in particular while pregnant or breastfeeding children, under five years of age.

Almost half of all deaths in children under 5 are attributable to undernutrition; it puts children at bigger risk of dying from common infections, increases the occurrence and severity of such infections, and delays recovery. The interface among under-nutrition and illness can create a potentially lethal cycle of aggravation illness and deteriorating nutritional status. Underprivileged nutrition in the first 1,000 days of a child's life can also lead to stunted growth, which is associated with impaired cognitive ability and reduced school and work performance. We are still far from a world without malnutrition. Although the 2020 publication of the joint malnutrition estimates show that stunting prevalence has been moribund while the year 2000, more than one in five – 144

million children under 5 –were stunted in 2019, and 47 million suffered from wasting. Meanwhile, the number of overweight children worldwide has remained stagnant for more than a decade. Measures of child under-nutrition are used to track enlargement movement

In the Post-2015 development period, estimates of child malnutrition will help decide whether the world is on track to attain the Sustainable Development Goals – predominantly, goal 2 to "last part food shortage, achieve food sanctuary and improved nourishment, and endorse sustainable agriculture". In 2019, three regions had very high stunting prevalence, with approximately one third of children exaggerated. On the other hand, three regions had low stunting prevalence. However, vast disparities within the low prevalence regions can exist. Chronic undernutrition in Latin America and the Caribbean can vary widely between neighboring countries: In one country less than 1 in 8 are affected, while nearly 1 in 2 of their peers in the country subsequently door are at a difficulty due to the permanent physical and cognitive damage that can escort stunted augmentation.

India had in the year of 2000 – 2002 prevalence of undernourishment at 18.6%. After that in the year 2003-2005 it was increased by 22.2% the reason behind

conflict, climate change and economic slowdown were the main causes for the undernourishment in India**.** According to Victor Aguaya, (UNICEF) one-third to one-half of all child deaths in India are due to malnutrition making it one of the biggest causes of child death. The existing nutrition programs including the Integrated Child Development Scheme (ICDS) started in 1975 and now operating in 6284 Projects (9.3 lakh Anganwadi Centers) in India, is reaching two third of the nation's children in an attempt to improve their health, nutrition and development, but has made little nutritional impact on very young children less than three years of age. Hence the present study is aimed to understand the current scenario of Malnutrition in children between zero to five years with eference to Coimbatore household mother.

RESEARCH METHODOLOGY

PREPARATION OF QUESTIONNAIRE

The study is based on primary data that were collected through a structured questionnaire prepared after the discussion with few household women. Finally, the questionnaire was designed which comprises of 26 questions, out of this 6

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questions are based on the demographic profile and the rest are related to various other aspects of prevalence of malnutrition in children between zero to five years with preference to Coimbatore City . The secondary data collected from published journals, magazines and various websites. secondary data collected from published journals, magazines and various websites.

SAMPLING AND COLLECTION OF DATA

In the present study, 70 questionnaires were circulated to the selected respondents as sample and received back 60 filled questionnaires. But 10 questionnaires were unusable due to missing of complete information. Hence the sample size is 50. Since the researcher has taken only in Coimbatore city, sample size is not beyond 50.The researcher used Coimbatore four important tools to analyze the data after entering, coding and grouping data simple percentage used for analysis in this research work.

RESULT AND DISCUSSION

This study was conducted to analyse the prevalence of malnutrition in children between zero to five years with reference to Coimbatore City. The results were given as table 1 and 2 with essential interpretation in an organized manner

Table 1.Demographic profile and Malnutrition attributes of the respondents

S.No	Gender	No. of respondents	Percent (%)
1	Male	23	46.0
2	Female	27	54.0
	Total	50	100.0
S.No	**Age**	**No. of respondents**	**Percent**
1	0-2	16	32.0
2	3-5	34	68.0
	Total	50	100.0
S.No	**Schooling of the child**	**No. of respondents**	**Percent**
1	Government	4	8.0
2	Private (Matric)	14	28.0
3	Private (CBSE)	8	16.0
4	Play group	7	14.0
5	Not Applicable	17	34.0
	Total	50	100.0
S.No	**Elderly person at home**	**No. of respondents**	**Percent**
1	Yes	20	40.0
2	No	30	60.0
	Total	50	100.0
S.No	**Mothers occupation**	**No. of respondents**	**Percent**
1	Home maker	48	96.0
2	Working	2	4.0
	Total	50	100.0
S.No	**BMI (Body Mass Index) of the Child**	**No. of respondents**	**Percent**
1	Underweight	24	48.0
2	Normal	22	44.0

S.No		No. of respondents	Percent
3	Overweight	4	8.0
	Total	50	100.0

S.No	Recommended dietary Allowance (RDA) of the Child	No. of respondents	Percent
1	Does not meet the allowance	18	36.0
2	Meets the allowance	27	54.0
3	Excess than the allowance	5	10.0
	Total	50	100.0

S.No	Water intake of the child	No. of respondents	Percent
1	More than 7-8 glasses	5	10.0
2	7-8 glasses	14	28.0
3	5-6 glasses	12	24.0
4	less than 5 glasses	19	38.0
	Total	50	100.0

S.No	Allergic to any food (Child)	No. of respondents	Percent
1	Yes	2	40
2	No	48	96
	Total	50	100

S.No	Motor skills of the child	No. of respondents	Percent
1	Excellent	6	12.0
2	Good	9	18.0
3	Fair	1	2.0
4	Not Applicable	34	68.0
	Total	50	100.0

S.No	Slip time of the child	No. of respondents	Percent
1	6 hours	3	6.0
2	7 hours	15	30.0

3	8 hours	32	64.0
	Total	50	100.0
S.No	**Deworming of the child**	**No. of respondents**	**Percent**
1	Yes	21	42.0
2	No	29	58.0
	Total	50	100.0

Table 2: Child's frequency of intake of the food preference

Food Groups	Daily	Often	Sometimes	Weekly	Never
Cereals and Millets	29 (58%)	14 (28%)	6 (12%)	1 (2%)	-
Pulses and Legumes	19 (38%)	23 (46%)	7 (14%)	1 (2%)	-
Milk and Milk Products	48 (96%)	1 (2%)	-	1 (2%)	-
Green leafy vegetables	1 (2%)	9 (18%)	15 (30%)	25 (50%)	-
Roots and tubers	2 (4%)	21 (42%)	22 (44%)	5 (10%)	-
Other vegetables	15 (30%)	14 (28%)	15 (30%)	6 (12%)	-
Fruits	40 (80%)	8 (16%)	2 (4%)	-	-
Sugar and sugary products	10 (20%)	36 (72%)	4 (8%)	-	-
Junk foods/ fried foods	2 (4%)	31(62%)	6 (12%)	3 (6%)	8 (16%)
Egg	6 (12%)	23 (46%)	10 (20%)	4 (8%)	7 (14%)
Mutton	4 (8%)	7 (14%)	23 (46%)	16 (32%)	-
Fish	2 (4%)	5 (10%)	8 (16%)	35 (70%)	-
Chicken	-	1 (2%)	12 (24%)	19 (38%)	18 (36%)
Does your child skip breakfast?	4 (8%)	1(2%)	12 (24%)	1 (2%)	32 (64%)

Source: Primary Data

The above table 1 shows that 54% of the respondents are female and 46% of the respondents are male. In majority comparisons, 68% respondents are under the age group of 3 - 5 years. The respondents marked 34% of the children's are not going to join school and 60% of the family said no elderly person in home. It was noted that 96% of the respondents are homemaker. With regards to weight, 48% children are under weight, and 44% of the children are normal weight. Noticeably, 54% of the children meet allowances. The result showed that 38% of the children intake water less than 5 glasses. Majority, 96% of the household mothers said Allergic to any food (Child), 64% of the children are skipping daily more than eight hours and 58% of the mother said no deworming of the child.

The above table 2 indicates that 58% of the children consume daily cereals and millets. 46% of the children consume often pulses and legumes, and 38% of the children consume regular basis. The children, 96% consumes regularly milk and milk products. 50% of the children consume weekly basis on green leafy vegetables, 30% of the children consume food sometimes and 18% of the children The children, 48% consume sometimes on roots and tubers and 42% consume occasionally. 30% consume other vegetables on daily basis 80% of the children consume fruits on regular basis. 72% of the children consume sugar and sugary products on often basis. Emotively, 62% of the children consume junk foods on often basis and 16% of the children never consume any nutritious food. Data showed that,46% of the children consume egg on often basis, and 20% on sometimes basis. With regards to consumption of mutton, 46% of the children consume it sometimes and 32% of children weekly once. On weekly, 70% of the children consume fish and 16% of the children sometimes basis. On weekly basis, 38% of the children consume chicken and 36% of the children never consume chicken and 64% of the children never skip breakfast.

Worldwide, around 149 million children under-5 undergo stunting. In 2018, more than 49 million children under-5 were wasted and nearly 17 million were severely wasted. There are now over 40 million overweight children globally, an increase of 10 million since 2000 prevalence of undernourishment at 18.6% has been recorded in India in the year 2000-2002. After that in the year 2003-2005 it was increased by 22.2% the reason behind would be conflict, climate change and economic slowdown.,

From the above data,it is found that

around 48% of the children are underweight (Malnourished), 8% of the children are overweight and 44% of the children are normal(Healthy).It maybe because of low/high intake of food or improper diet, low intake of nutrient rich foods, digestive disorder and stomach conditions, lack of adequate breast feeding, lack of vitamin deficiency, low intake of protein and vitamin food items, socio economic conditions, illiteracy or can be due to improper maintenance of child's immunization records.

To overcome the condition of malnutrition, feed the child with a well-balanced diet and also with vitamine and mineral supplements. But it is better to consult the doctor first. As the child passes through the vital period of body growth and development, her body requires a proper proportion of calcium, calories, and protein. It is recommended that nutrient-rich foods in the child's diet menu should be included. Through the enlargement period, take the child to a pediatrician, once in a month. The specialist examines their BMI, height and weight. It can help to keep a close track of your child's growth processes.

To conclude that on overview of the malnutrition situation presented in this paper has shown that a sizeable proportion of the populations are malnourished and anaemic, and for this, numerous factors are responsible. Some of these factors directly cause malnutrition among people, whereas many others affect indirectly. Considerable along with these are poverty,

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