A Study of Socio-Economic Factors Associated with Malnutrition among Backward Class Children

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Abstract:

School children form an important segment of population; constitute about twenty percent of total population in India. The school age being one of the crucial period of life, forty percent of the physical growth and eighty percent of the mental growth is believed to take place during this period and more vulnerable to malnutrition; which leads to stunting of physical growth and intellectual development. In rural areas it is closely linked to their social, cultural and economic status. Socio- economic factors such as age, sex, per capita income, parental education have an impact on nutritional status of children. This study was aimed to study the extent of Malnutrition among backward class children and socio-economic factors associated with the extent of malnutrition. A representative sample of 100 backward class children of seven to fourteen years from Jind district of Haryana State was selected. The pretested semi-structured interview schedule was administered to the subjects to gather relevant data and data was statistically analyzed by using percentages and chi-square test. Result indicated that majority of the children (90%) were found to be

undernourished as per their weight for age of children was concerned and 57 percent undernourished when measured as per their height for age of children. It was also found that children belonging to illiterate mothers, working at farms, having two meals patterns at home with father engaged in caste occupation were reported to be malnourished to a greater extent in comparison to the children of educated mothers who were working as a house wives only with practicing three meal patters at home and fathers engaging himself in agricultural labors.

Key words: Malnutrition, Overnutrition, Undernutrition.

Introduction:

Children are the future: their health is the index of the health of people; and when unhappy they reflect the social sickness of economically advance societies and prospering classes (Qadeer, 1997). Growth and development is an essential component of child's overall well-being. General pattern of growth and development varies according to the age and sex. Kasin (1978) noticed that mental and physical growth are affected by heredity and environment. The environment consists of nutrition, child care, family atmosphere and parental socio-economic status which play a significant role in overall physical growth of child (Swaminathan, 1997). Undernutrition is one of the major health problems among young children in developing countries of the world. The developing countries of the world constitute two third of world's population. About sixty five percent population of the developing countries suffer from malnutrition. Malnutrition is imperfect or faulty nutrition. It can be defined as a precipitated stage of disproportion between demands of the body for a certain nutrient and its intake. Malnutrition means- a state of a condition of a person when he is undernourished or overnourished. School children form an important segment of population; constitute about twenty percent of total population in India. The school age being one of

the crucial period of life, forty percent of the physical growth and eighty percent of the mental growth is believed to take place during this period and more vulnerable to malnutrition; which leads to stunting of physical growth and intellectual development. In rural areas it is closely linked to their social, cultural and economic status. Socio- economic factors such as age, sex, per capita income, parental education have an impact on nutritional status of children.

Objectives:

   (1) To find out the extent of malnutrition among backward class children.
   (2) To find out the extent of malnutrition among male and female backward class children.
   (3) To know the socio-economic factors associated with the extent of malnutrition.

Methodology:

In this study Anthropometry and Survey methods were used. Anthropometry was used for the assessment of extent of malnutrition and survey method was used identifying subjects for depth study as well as studying consumption pattern prevailed among backward class children. In Anthropometry 'Gomez's classification' for weight for age and 'Water Law's classification' for height for age were used.

Sampling Procedure:

The study was carried out in Jind district of Haryana state of India. Two blocks named Narwana and Jind were selected randomly out of total nine blocks in the district. Thereafter two villages named Dharodi and Bhabalpur were selected randomly from each of the selected blocks, respectively and from each of the selected villages, a group of fifty children of seven to

fourteen years representing backward class children were randomly making total sample of hundred respondents.

Tools:

A semi- structured interview schedule was prepared after studying the relevant literature on the subject and in accordance with methodological procedure adopted for the study and the objectives of the investigation. To check the feasibility of the interview schedule, the research scholar administered the same to ten families which were not included in the sample in the same area for representing it. Based on the responses obtained from pre-testing and difficulties faced, modifications were incorporated to make the interview schedule more scientific in generating relevant data from the respondents. The pretested semi-structured interview schedule was administered to the subjects to gather relevant data.

Statistical Technique:

Keeping in view the objectives of the study the data so collected was statistically analyzed by using percentages and chi-square test.

Result and Discussion:

Objective 1: To find out the extent of malnutrition among backward class children.

Extent of Malnutrition

Parameters	Extent of Malnutrition					Total
	Normal	Mild	Moderate	Severe	Undernourished	
Weight	10	34	46	10	90	100
Height	43	32	19	6	57	100

- Undernourished includes the categories mild, moderate and severe

The quantum of malnutrition among the selected children highlighted the fact that majority of the children (90%) were found to be undernourished as per their weight for age of children was concerned, followed by 57 percent undernourished when measured as per their height for age of children.

Objective 2: To find out the extent of malnutrition among male and female backward class children.

Extent of malnutrition as per their Weight and Sex

Sex	Extent of Malnutrition					Total
	Normal	Mild	Moderate	Severe	Undernourished	
Male	6 (11.1)	24 (44.4)	21 (38.9)	3 (5.6)	48 (88.9)	54
Female	4 (8.7)	10 (21.7)	25 (54.3)	7 (15.3)	42 (91.3)	46
Total	10	34	46	10	90	100

- Figures in Parenthesis denote percentages
- Undernourished includes the categories mild, moderate and severe

Table shows that relatively higher incidence of malnutrition (91.3%) was reported in female children contrary to male, percentage being 88.9. Again the similar trend was observed in case of 'severe' form of malnutrition, the percentage being 15.3 among female and 5.6 in male.

Extent of malnutrition as per their Height and Sex

Sex	Extent of Malnutrition					Total
	Normal	Mild	Moderate	Severe	Undernourished	
Male	24 (44.4)	19 (35.3)	10 (18.5)	1 (1.9)	30 (55.6)	54
Female	19 (41.3)	13 (28.2)	9 (19.6)	5 (10.9)	27 (58.7)	46
Total	43	32	19	6	57	100

- Figures in Parenthesis denote percentages

- Undernourished includes the categories mild, moderate and severe

Table shows that relatively higher incidence of malnutrition (58.7%) was reported in female children contrary to male, percentage being 55.6. Again the similar trend was observed in case of 'severe' form of malnutrition, the percentage being 10.9 among female and 1.9 in male.

Objective 3: To know the socio-economic factors associated with the extent of malnutrition.

Socio-Personal and economic correlates associated with extent of Malnutrition

Sr. No.	Correlates	Weight for Age	Height for Age
1	Age	----	----
2	Sex	----	----
3	Sub castes	33.89*	51.34*
4	Family Type	----	----
5	Family Size	----	----
6	Education of mother	19.76*	----
7	Family Literacy Index	----	----
8	Mass Media Exposure	----	----
9	Occupation of Father	27.71*	
10	Occupation of mother	----	12.08*
11	Annual Income	----	----
12	Family Land Holding	----	----
13	No. of Milch Animals	----	----
14	No. of Meals	27.21*	22.24*

(*) indicate significant

This table shows that the extent of malnutrition as per their Weight for Age and Height for Age was significantly correlated with sub-castes, education of mother, occupation of parents and no. of meals while other variables were not significantly associated with the extent of malnutrition as per their Weight for Age and Height for Age. Specifically children belonging to illiterate mothers, working at farms, having two meals patterns at home with father engaged in caste occupation were reported

to be malnourished to a greater extent in comparison to the children of educated mothers who were working as a house wives only with practicing three meal patters at home and fathers engaging himself in agricultural labours.

Conclusion:

The study reported that majority of children were found to be undernourished as per their weight for age and height for age was concerned. 6 to 10 percent of children were reported to be 'severely' undernourished. The study also revealed that higher incidence of malnutrition was reported in female children contrary to male. The study also reported that significant association between the levels of malnutrition and sub-castes of children, education of mother, occupation of father and mother, number of meals when assessed as per their weight for age and height for age.

Suggestions:

- The high incidence rate of malnutrition made us to realize the importance of strengthening the school health during school age. Therefore, ICDS (Integrated Child Development Services) must monitor efficiently and effectively at the pre school age and these would certainly add in identifying the causes of malnutrition and remedial measure for the same.
- An attempt should also be made to educate the mothers of children at home to treat both the sex equally.
- The existing two meal pattern need to be replaced by three meal pattern which seems to have added tremendously to the higher level of malnourishment; must be replaced by three meal pattern.

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