

Nutritional Assessment of Pre – school Children in Anganwadi Centres and Its Association with various Socio- demographic Factors

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ABSTRACT

Malnutrition is one of the causes of child's ill health, child mortality and morbidity rate in India. In this study, an attempt was made to find out the nutritional status of children in the Anganwadi centre and socio demographic profile of the parents' of the children. A structural questionnaire was used to ask the mother of the children regarding socio economic profile of the parents.

Key Words : Mal Nutrition, Child Mortality, Morbidity, Anganwadi

INTRODUCTION

Children hold the future of our nation. Child wellbeing reveals how a country guards and feeds its vulnerable members and globally indicators of child well-being are used to know the developmental status of different countries. Anganwadi is a type of rural child care center in India. It was started by the Indian government in 1975 as the integrated child development services program to combat child hunger and malnutrition. Socio-demographics means characteristics of a population, general characteristics such as age, gender, education, occupation and household employment (Gebre *et al.*, 2019). On socio-demographic determinants of under nutrition of preschool children attending Anganwadis in rural block, north kerala suggest to focus on preschool children for growth monitoring especially in low socioeconomic families, approaching them through the help of Anganwadis and educating mothers of low socioeconomic status (Radhamani and Rajeev, 2018). Nutritional status of under-5 children attending Anganwadi centers of rural field practice area of RIMS, Ranchi

revealed that despite services being provided by the government for children from rural areas through AWCs, still a large number children were found to be malnourished. so proper growth monitoring and adherence to 'take home rations' should be done regularly by Anganwadi workers. With this background, this study was undertaken to study the socio-demographic profile, nutritional status and to identify the malnourished children of the anganwadi (Pathak *et al.*, 2017; Balwadi Nutrition Programme, 2019; WHO, 2012 and ICMR).

METHODOLOGY

Study settings:

The study was conducted in the village of Sundhipadar, district-Boudh Odisha. Out of 24 Anganwadi centers 5 centers was selected randomly.

Selection of Samples:

60 preschool children of age group of 2-6 years purposively were selected for assessing the socio-demographic and Nutritional status.

Study Design:

A structural questionnaire was used to collect the data by Interview method.

Data Analysis:

Data was analyzed in frequency and percentage.

RESULTS AND DISCUSSION

The Table 1 shows the educational status, occupation and income level of parents. As revealed in the table 48% of fathers and 40% of mothers were having SLCS as their educational qualification. 28% of fathers and 20% of mothers were having higher secondary education. 23% of fathers and 25% of mothers were graduates. Regarding the occupation of fathers 20% were laborers, 40% were self-employed, 16% had government jobs, 23% had private jobs and none of the fathers were reported to jobless. About the occupational status of mothers 20% were laborer, 8% were self-employed, 3% had government jobs, 6% had private jobs. Results on the income level of the family reveals that majority of the study population (53%) were having a monthly income of less than Rs. 10,000.

Table 1: Socio Demographic Profile of Parents (N=60)

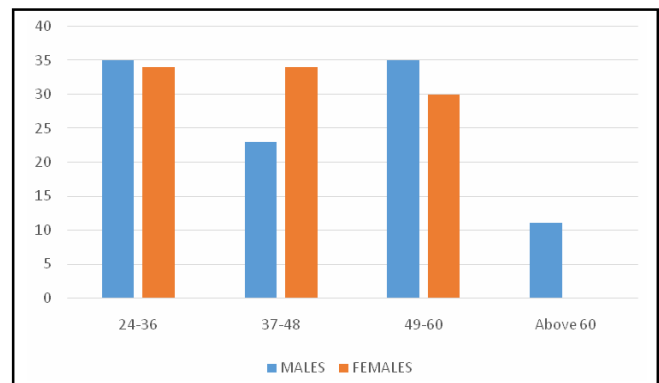
Parameters	Percentage of Distribution of Parents	
	Father	Mother
Education		
SSLC	29(48.3%)	24(40%)
HS	17(28.3%)	21(35%)
Graduate	14(23%)	15(25%)
Post graduate	0	
Occupation		
Laborer	12(20%)	12(20%)
Self-employment	24(40%)	5(8.3%)
Government job	10(16.6%)	2(3.3%)
Private job	14(23.3%)	4(6.6%)
Not working	0	37(61.6%)
Income		
10,000-20,000	32(53.3%)	5(8.3%)
21,000-30,000	12(28.3%)	2(3.3%)
31,000-40,000	12(20%)	2(3.3%)

As mentioned in the Table 2 and Fig. 1 sixty children in the study population attending anganwadi were classified gender wise into four age groups. 35 per cent of the children in the age group of 24-36 months were males and 34 per cent were females. In the age group of 37-48, 23% were males and 34% were females. 35% male children and 30% female children came under the

age group 49-60 months. Only 11% male children were in the category of above 60 months.

Table 2: Distribution of Children According to Age and Gender

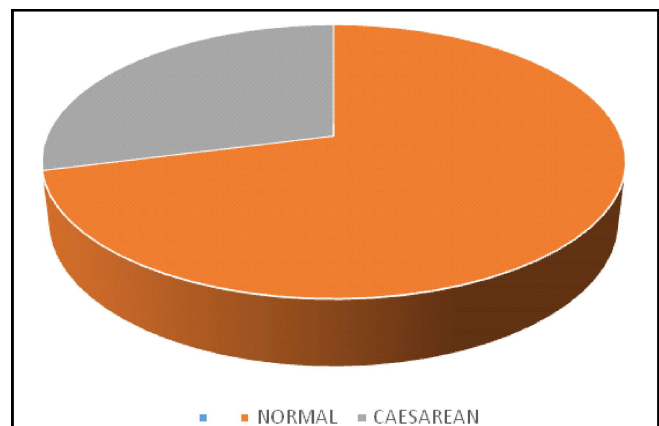
Age Group (month)	Males	Females	Total
24-36	12(35%)	9(34%)	21(35%)
36-48	8(23%)	9(34%)	17(28%)
49-60	12(35%)	8(30%)	20(33%)
Above 60	2(11%)	0	2(3.30%)
Total	34(100%)	26(100%)	60(100%)

**Fig. 1: Distribution of Children According to Age and Gender**

Distribution of children based on mode of delivery is 71% of the mothers had normal delivery while 29% of the child deliveries were caesarean (Table 3 and Fig. 2).

Table 3: Mode of Delivery

Category	Number of Children
Normal	47(71.00)
Caesarean	13 (29.00)

**Fig. 2: Mode of Delivery**

It's shows that 34% of the children in the age group of 24-36 months, 25% of the children in the age group of 37-48 months, 22% of the children in the age group of 49-60 months, 17% of the children above 60 months were first children. 40% of the children in the age group of 24-36 months, 32% children in the age group of 37-48 months, 20% children in the age group of 49-60 months and 8% of children in the age group above 60 months were second children (Table 4 and Fig. 2).

Table 4 : Ordinal Position of Anganwadi Children

Age Group (Month)	Ist Child	Ist Child
24-36	12(34.2%)	10(40%)
37-48	9(25.7%)	8(32%)
49-60	8(22.8%)	5(20%)
Above 60	6(17.1%)	2(8%)
Total	35(100%)	25(100%)

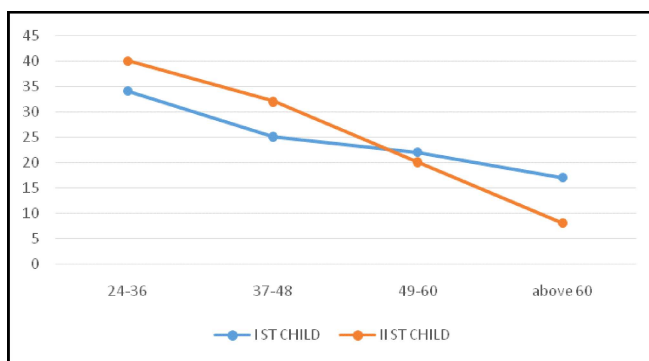


Fig. 3 : Ordinal position of children

Birth weight of anganwadi children were collected from their mothers and found that 33% of male children in the study population were having a lower birth weight (Table 5).

Intake of protein, fat, calcium is less as required.

Conclusion:

It was found that 33% of male children in the study population were having a lower birth weight. Children with birth weight less than 2500 grams need to be cared and their anthropometric measurements should be taken since they are more prone to malnutrition, illness etc. 25% of the mothers were graduated and a large percentage of mothers were not working. Majority of

Table 5 : Nutrient Intake of Children

Nutrients	Required	Intake	
		Boys (2-3 Years)	Girls (2-3 Years)
Energy (Kcal)	1060	1200	1120
Protein (gram)	16.7	9	10
Fat (gram)	27	30	25
Calcium (mg/d)	600	450	500
Nutrients	Required	Intake	
		Boys (4-6 Years)	Girls (4-6 Years)
Energy (Kcal)	1350	1500	1200
Protein (gram)	20.1	15	13
Fat (gram)	25	20	15
Calcium (mg/d)	600	450	500

the children were from families having a monthly income of less than or equal to Rs. 20,000/- Children from low income group need special attention since they may be deprived from nutrient rich foods. Due to inadequate intake of protein and fat they are more prone to protein energy malnutrition, so proper diet and nutritional guidance is required.

REFERENCES

- Balwadi Nutrition Programme. Wikipedia (2019). Available at: https://en.wikipedia.org/w/index.php?title=Balwadi_Nutrition_Programme&oldid=919380388.
- Gebre, A., Reddy, P.S., Mulugeta, A., Sedik, Y. and Kahssay, M. (2019). Prevalence of Malnutrition and Associated Factors among Under-Five Children in Pastoral Communities of Afar Regional State, Northeast Ethiopia: A Community-Based Cross-Sectional Study. *J. Nutr. Metab.*, 2019; 9187609.
- ICMR (Indian Council of Medical Research) recommendations on calorie intake.).
- Radhamani, K.V. and Rajeev, S.V. (2017). A study on nutritional status of Anganwadi children in a rural area of North Kerala. *Indian J. Child Health*, 4 (3) : 348-351.
- Pathak, S., Yadav, T., Joshi, C., Sharma, N., Gulabani, S. and Gandhi, D. (2017). Study of nutritional assessment of children between 6 months to 5 years. *IJIM*, 4(2):42-52.
- World Health Organization (2012). Joint child malnutrition estimates - Levels and trends. Available at: <https://www.who.int/nutgrowthdb/estimates2012/en/>.
