

A comparative study on nutritional status of ICDS and non-ICDS children of Ganjam district

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ABSTRACT

The rich experience of ICDS has brought about a welcome transition from welfare orientation to a new challenging perspective of social change. The evaluation of nutritional and immunisation services was undertaken in the rural and urban ICDS centres of Ganjam district. The socio-economic development of the country depends on the health status of its children. So the opportunities for early childhood development determine the present and future of the country. The present research is an attempt to study the nutritional status of ICDS and Non-ICDS children (3-6 yrs) in urban and rural areas of Ganjam district. A sample of 300 children was selected. The tool consisted of an anthropometric measurement (Weight, Height, Arm-circumferences and Head circumference). Data were analysed of 300 children with the help of WHO anthropometric Software. Z Scores of malnutrition were calculated by this software. The Z-score data of children obtained were systematically tabulated and coded according to exhaustive categories. Analysis of the data was done qualitatively and quantitatively using simple numbers and percentage and Chi-square with the help of statistical software SPSS. The study indicated towards the nutritional status of children.

INTRODUCTION

ICDS Projects is the landmark in the history of nutrition in India. It is the mother to all the food, nutrition and all insurance policies. The children between the age group 0-6 years are one of the most nutritionally vulnerable segments of the population. Nutrition during the first 5 years has an impact not only on growth and morbidity during childhood, but also acts as a determinant of nutritional status in adolescent and adulthood life. Globally, more than one third of child deaths are attributable to under nutrition (According to UNICEF, 2009). The child population (0-6 yrs) was 15.9 per cent of the total population (According to the Indian census in 2001). The prevalence of under weight children in

India is among the highest in the world, and it is nearly double that of sub-Saharan Africa. 45 per cent of less than 3 year old children were malnourished (National Family Health Survey-3, 2005-2006). If it will continue, India would be raising a generation which is debilitated and unable to contribute effectively to the productivity of the country. The Integrated Child Development Services (ICDS) programme is a globally recognised community based early child care programme, which aim is the basic integrated needs of young children, expectant and nursing mother and adolescent girls across the life cycle in a holistic manner. ICDS in India is a response to the challenge of breaking a vicious cycle of malnutrition, impaired development, mortality and morbidity in young children. The ICDS is perhaps one of the better concerned

programmes, yet on travels around country one realises that there is a huge gap between what is expected of the programme and the ground situation. The present study has been taken up with the objective of Studing the nutritional status of ICDS and Non-ICDS children attending. Anganwadi centres in rural and urban areas of Ganjam district.

The development of the nation lies in the hands of the children who are the future citizens. Childhood malnutrition among urban poor is similar to or higher than rural poor Nutritional status of children from rural area has been shown to be associated with their mother’s dietary intake and nutritional status as well as the economic status of the family. It is the most important contributor of health during the growing years of human beings. In last two decades prevalence of undernutrition among Indian children has declined whereas obesity levels have increased.

MATERIAL AND METHODS

The present study was conducted in Ganjam district during the year 2014-2015 with an attempt to study the nutritional status of ICDS and Non-ICDS children (3-6 yrs) attending Anganwadi centres in urban and rural areas and some play schools of both urban and rural areas of Ganjam district. Three hundred children (3-6 yrs) attending Anganwadi centres and play schools were selected from urban and rural areas of the district. Samples were randomly selected for the purpose. An information sheet was used to collect the information by investigator on the nutritional status of the children with the help of ICDS growth card and existing previous records. Children were weighed using a standardized Salter’s Scale to the nearest 100 grams when attending

an Anganwadi. The grades of malnutrition were assessed using World Health Organisation (WHO) recommended standards. Data of all children were analysed using the WHO Anthropometric software. Anthropometric measurement (Height, weight, arm circumference and head circumference) was used as a tool for data collection. Data were collected by visits made to Anganwadi centres and play schools. The data obtained were coded and tabulated. Analysis of the data was done qualitatively and quantitatively using simple numbers and percentage and Chi-square with the help of statistical software SPSS.

OBSERVATIONS AND ANALYSIS

Table 1 reflects the age and sex variations in anthropometric characteristics of both rural and urban areas of ICDS and Non-ICDS children. No. of 3-6 years age of child was another parameter in the study for which data was collected from all the 300 respondents comprising of both ICDS and Non ICDS. Accordingly data was collected from them and the result so obtained has been tabulated in Table 1. It is evident from the table that, highest number of 3-6 years of child is found in non ICDS urban anganwadi centre. The mean value for the 3-6 years of child is 51.92 ± 0.93 , 43.82 ± 0.23 , 71.42 ± 1.19 and 60.00 ± 0.00 , respectively for ICDS rural, ICDS urban, Non ICDS rural and Non ICDS urban, respectively.

Age of the students those are studying in different anganwadi centre was another parameter for which data has been collected from the respondents. The data collected from them has been tabulated and graphically represented in Table 1. It is found from the table that, mean students age of ICDS rural, ICDS urban, Non ICDS rural and non ICDS urban is 3.83 ± 0.11 , 3.65 ± 0.07 ,

Parameters	Category	N	Mean	Std. Deviation	Std. Error
3-6 Year child	ICDS-Rural	65	51.9231	7.53597	.93472
	ICDS-Urban	85	43.8235	2.13350	.23141
	NICDS- Rural	70	71.4286	9.96890	1.19151
	NICDS- Urban	80	60.0000	.00000	.00000
	Total	300	56.3333	11.91759	.68806
Student age	ICDS- Rural	65	3.8308	.91120	.11302
	ICDS- Urban	85	3.6588	.66463	.07209
	NICDS- Rural	70	3.4286	.49844	.05958
	NICDS- Urban	80	3.2625	.44277	.04950
	Total	300	3.5367	.67590	.03902

3.42±0.05 and 3.53±0.03, respectively.

Table 2 shows the sex distribution of the children. All the respondents of both ICDS and Non ICDS were asked about their sex and accordingly they have given their response to this effect and the same has been tabulated in Table 2. It is revealed from the above table and figure that, 26 numbers of male and 39 numbers of female are present in ICDS rural anganwadi centres, 49

numbers of males and 36 numbers of female in ICDS urban anganwadi centre, 39 numbers of male and 31 numbers of females in Non ICDS rural anganwadi centre and 42 numbers of males and 38 numbers of females in Non ICDS urban centres, respectively. In overall, there are 156 numbers of male respondents and rest 144 numbers of female respondents in all the four categories of anganwadi centres, respectively.

Table 2 : Sex wise distribution of the respondents

Sr. No.	Category	Sex	N
1.	ICDS-Rural	Male	26
		Female	39
		Total	65
2.	ICDS-Urban	Male	49
		Female	36
		Total	85
3.	NICDS- Rural	Male	39
		Female	31
		Total	70
4.	NICDS- Urban	Male	42
		Female	38
		Total	80
Total		Male	156
		Female	144
		Total	300

Table 3 : Descriptive statistics of body measurement

Parameters	Category	N	Mean	Std. Deviation	Std. Error
Height	ICDS-Rural	65	95.18 ^a	7.17557	.89002
	ICDS-Urban	85	98.01 ^b	4.34931	.47175
	NICDS- Rural	70	103.86 ^c	7.33522	.87673
	NICDS- Urban	80	102.91 ^c	6.16070	.68879
	Total	300	100.07	7.11986	.41107
Wight	ICDS- Rural	65	13.1400a	2.07544	.25743
	ICDS- Urban	85	13.8953a	2.13697	.23179
	NICDS- Rural	70	15.4714b	3.07737	.36782
	NICDS- Urban	80	18.6250c	3.41024	.38128
	Total	300	15.3607	3.46403	.20000
Arm	ICDS- Rural	65	14.4077a	1.19207	.14786
	ICDS- Urban	85	14.6706a	1.18661	.12871
	NICDS- Rural	70	19.6214b	3.34321	.39959
	NICDS- Urban	80	23.6375c	2.33977	.26159
	Total	300	18.1600	4.44694	.25674
Head	ICDS- Rural	65	46.7769a	1.64894	.20453
	ICDS- Urban	85	48.0471b	1.81859	.19725
	NICDS- Rural	70	48.8786c	1.61836	.19343
	NICDS- Urban	80	49.2125c	1.49847	.16753
	Total	300	48.2767	1.87933	.10850

Table 3 represents the mean height of the students of four categories was found to be 95.18cm, 98.01 cm, 103.86 cm and 102.91 cm, respectively for ICDS rural, ICDS urban, Non ICDS rural and Non ICDS urban students and the difference in mean was found to statistically significant (P<0.01) and presented in Table 3.

The mean weight of the students of four categories was found to be 13.14kg, 13.90kg, 15.47 kg and 18.62 g, respectively for ICDS rural, ICDS urban, Non ICDS rural and Non ICDS urban students and the difference in mean was found to statistically significant (P<0.01).

The mean arm length of the students of four categories was found to be 14.40cm, 14.67cm, 19.62 cm and 23.63cm, respectively for ICDS rural, ICDS urban, Non ICDS rural and Non ICDS urban students and the difference in mean was found to statistically significant (P<0.01).

The mean head circumference of the students of four categories was found to be 46.77cm,48.05cm, 48.87 cm and 49.21cm, respectively for ICDS rural, ICDS urban, Non ICDS rural and Non ICDS urban students and the difference in mean was found to statistically significant (P<0.01).

Table 4 reflects as per the opinion of the respondents, the students are receiving all types of services like referral, health service, nutritional service and educational service from the anganwadi centres of both ICDS and Non ICDS urban and rural, respectively and the frequency of service rendered by the anganwadi centres is per year.

Table 4 : Service received from the Anganwadi centres			
Sr. No.	Category	Service	N
1.	ICDS-Rural	5	65
		Total	65
2.	ICDS-Urban	5	85
		Total	85
3.	NICDS-Rural	2	70
		Total	70
4.	NICDS-Urban	2	80
		Total	80
Total		2	150
		5	150
		Total	300

Conclusion:

ICDS today represents one of the world’s largest programmes for early childhood development. The

children are the ultimate human asset. Malnutrition is the most widespread condition affecting the health of children. A younger child is more dependent in their food choices and food intake on mothers or elderly care but as the child grows; They starts making their own food preferences and decreases their dependency on mothers for food intake. With a view to improving health and nutritional status of the children in the age group of 0 to 6 years, pregnant women and lactating mothers, Supplementary Nutrition Programme has been taken up under ICDS Scheme, the centre provides 50% and the State bears rest 50%. The total beneficiaries under this Scheme are 49 lakhs. (All Pregnant and Lactating mothers and children from 0-6 years are covered). The present study found that all the parents especially mothers had knowledge about supplementary nutrition provided to their children at ICDS centres. The findings of the present study suggest that data collected from the respondents pertaining to age of the worker, strength of the centre, 3-6 years child and student’s age were subjected to statistical analysis by using ANOVA test which has been presented in table and graphs.

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