A comparative study to assess the nutritional status of the preschools children under ICDS and Non-ICDS schools in selected rural community, Dehradun

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Abstract

Background: Throughout the world the children are most vulnerable, neglected during their sensitive period of growth and development, which increase morbidity and mortality rate. The emphasis on child development has been on improving the quality of services under Integrated Child Development Service.

Methods and Materials: A non-experimental survey approach with comparative research design. The sample consisted 60 preschool children aged between 3 to 6 years under the ICDS and Non-ICDS schools were selected by purposive sampling technique in Abinav Children's Academy School, Balawala, Anangwadi Center in Kuanwala and Doiwala at Dehradun. Data was collected by using anthropometric measurements and structured observational checklist.

Results: There was significant difference statistically, between the nutritional status of preschool children of ICDS School, majority of 56.7% preschool school were healthy and least number of 43.3% preschool children were underweight whereas in Non-ICDS School majority of 86.7% preschool children were healthy and least number of 13.3% were underweight. The data revealed that the obtained t-value is greater than the table value at 0.05 levels therefore, there is significant difference in overall nutritional status of preschool children under ICDS and Non-ICDS Schools. The obtained chi-square value for selected demographic variables is greater than the table value at 0.05level of significance. Hence, research hypothesis is accepted and null hypothesis is rejected.

Conclusion: The investigator had analyzed the data that, among 30 preschool children under ICDS and 30 preschool children under Non-ICDS, the comparison of nutritional status for both groups by observational checklist, the mean of overall nutrition status in ICDS children is higher than Non-ICDS children. Hence, the study concludes that, the nutritional statuses of children under Non-ICDS School were well nourished than the children under ICDS School.

Keywords: Assess; nutritional status; preschool children; ICDS School; Non-ICDS School.

Introduction

Children are like buds in the plant, but they bloom as a flower. Children are the future hope of a nation and so, we have to nurture and strive for their wellbeing. Nutrition is a process by which living organism receives and utilizes material for maintenance of their function [1]. Poor and inadequate nutrition leads to malnutrition and it results to morbidity and mortality. The neglected form of human deprivation is malnutrition among preschool children. Nutrition and health are not similar but without good nutrition health can’t be as best as it is considered [2]. According to the 2001 census of India, it has around 250 million children, constituting 17.5% of India's total population, who are below the age of 6 years [3]. Integrated Child Development Services (ICDS) scheme was launched on 2nd October 1975. Today, ICDS Scheme represents one of the world’s largest and most unique programmes for early childhood development, which is better known as Anganwadis. The beneficiaries include children below 6 years, pregnant and lactating mothers, and other women in the age group of 15 to 44 years to provide preschool education, reduce malnutrition, morbidity and mortality of children [4]. There are 100 million preschool children out of 3-4 million suffer from severe malnutrition and 1million die because of it. 42 percent children below age of five are underweight and 59 percent children stunted Nutritional status in children of Uttarakhand is far from satisfactory. United Nations convention of the rights of a child recognizes the right of a child to nutritional well being and utilizes the all existing knowledge to combat malnutrition [5].

Method and materials

Descriptive Survey approach is designed to obtain information regarding the prevalence,
distribution and interpersonal relationship of variables within the population. Surveys obtain information from the sample of preschool children by means of physical examination and structured observational checklist. The selection of the institutions done on the basis of geographical proximity, feasibility of conducting the study and availability of samples.

**Result**

<table>
<thead>
<tr>
<th>Overall Nutritional Status of Preschool Children</th>
<th>ICDS</th>
<th>Non-ICDS</th>
<th>t-value</th>
<th>DF</th>
<th>p value/inference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>SD</td>
<td>Mean %</td>
<td>Mean</td>
<td>SD</td>
<td>Mean %</td>
</tr>
<tr>
<td>11.43</td>
<td>1.82</td>
<td>43.96</td>
<td>7.93</td>
<td>3.00</td>
<td>33.04</td>
</tr>
<tr>
<td>7.60</td>
<td>58</td>
<td>p &lt; 0.05</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1: Comparison of nutritional status under ICDS and Non-ICDS preschool children by observational checklist

Table no. 1 shows that, the distribution of mean, mean percentage, standard deviation of ICDS preschool children the overall mean score was 11.43±1.82, which is 43.96% of total score. Whereas in Non-ICDS Preschool children, the overall mean score was 7.93 ± 5.0, which is 33.04% of total score. The obtained t-value is greater than the table value at 0.05 levels therefore, indicating there is significant difference in the nutritional status of preschool under ICDS and Non-ICDS.

**Discussion**

Nutritional status was assessed in respect of weight by height and observational checklist. In ICDS School majority 56.7% of preschoolers were healthy whereas in Non-ICDS School, majority 86.7% of preschool children were well nourished which shows that the nutritional status of preschool children was well nourished. The result was similar to the study conducted by Kapoor D. et al. [6], Dinesh Kumar et al. [7] and Bose K et al. [8] among all under five children surveyed, 36.4% underweight, and 51.6% stunted and 10.6% wasted. Proportions of underweight (45.5%) and stunting (81.8%) were found maximum among children aged 13 - 24 months. Wasting was most prevalent (18.2%) among children aged 37-48 months. ICDS benefits received by children failed to improve the nutritional status of children.

In my study, according to Body mass index and observational checklist, the study showed that the obtained chi-square value for more of selected demographic variables is greater than the table value at 0.05 level, which indicates there is significant association between the nutritional status of preschool children of ICDS and Non-ICDS schools the another studies conducted by Dinesh Kumar et al. [7] and Marlow, R. Dorothy et al. [10] also revealed same result that, the nutritional status of Non-ICDS preschool children were well nourished as compared with preschool children of ICDS.

In the study, overall mean score of ICDS preschool children was 17.14±5.78 and in Non-ICDS Preschool children, the overall mean score was 16.19 ± 6.02 and applied t-test, the obtained t-value is greater than the table value at 0.05 levels therefore, indicating there is significant difference in the nutritional status of preschool children under ICDS and Non-ICDS. But this was contrary to a study by Kamala R et al. [11] in Jammu and Kashmir. This study observed that, ICDS children had good dietary intake as compared to the children who did not attend ICDS Centers.

In ICDS and Non ICDS School, the obtained Chi-square value for the selected demographic variables is greater than the table value at 0.05 levels, which indicates, there is significant association between the nutritional status of preschool children with selected demographic variables. Therefore the hypothesis states that, there will be association between the nutritional status of preschool children of ICDS and Non-ICDS School with the demographic variables is accepted.

**Conclusion**

This chapter presents the conclusion drawn, major findings, implications, limitations, suggestions and recommendations. The study shows that, the nutritional status of preschool children under Non-ICDS school is well nourished as well as healthy weight as compared to preschool children under ICDS School. There is significant association between the nutritional status of preschool children under ICDS and Non-ICDS school with selected demographic variables.

**References**