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Original Article

Comparative Study on Supplementation of Potato Flour Biscuits on the Nutritional and Cognitive Profile of the Selected Children

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Abstract:

Objective: Nutrition of the early childhood is of paramount importance because the foundation for life time strength and intellectual vitality is laid during this period. The present study aims to evaluate the effect of weaning biscuits supplementation of the nutritional parameters and cognitive performance of the selected children.

Methods: Three Balwadies situated in Salem District, Tamilnadu, India were selected. A total number of 40 school children in Grade II malnutrition, 15 from Balwadi I, 14 from Balwadi II and 11 from Balwadi III comprised the study sample. All the 40 were selected for the experimental study. Home diet without any supplementation was followed by Group I (n=10, control group), potato flour biscuit was supplemented to Group II (n=10), Maize biscuits were given to Group III (n=10) and Green gram biscuits were given to Group IV (n=10) for the period of 3 months. Parameters like anthropometric measurements, hemoglobin content and clinical picture were analyzed before and after supplementation, cognitive performance of the supplemented children was assessed at the end of the study period.

Findings: There was significant difference in height, weight, blood hemoglobin and clinical picture after three months on their home diet in group I. In groups II, III and IV significant increase in all the above parameters was noticed. More increase was found in group II children supplemented with potato flour biscuits for a period of 3 months. About cognitive performance better results were obtained in Group II followed by group IV (supplemented with green gram biscuits) and group III (supplemented with maize biscuits). Least was obtained by control group children who were in their home diet.

Conclusion: All these observations evidence that if such weaning biscuits made with potato flour, maize and green gram can form a daily ingredient in their diets, it will bring out better all round development of the children.

Keywords:

Children . Potato . Maize . Green gram . Nutritional . Cognitive performance

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