

A Study To Assess The Effectiveness of Structured Teaching Programme on Knowledge Regarding Nutritional Needs Among Adolescents in Selected School At Chennai

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Abstract- A good nutrition can help prevent disease and promote health. Adequate nutrition of any individual is determined by two factors. The first is the adequate availability of food in terms of quantity as well as quality, which depends on socio-economic status. The research design used for this study was quasi-experimental design. 100 adolescents were selected based on inclusion criteria (experimental group-50 and control group-50) through convenience sampling technique. The pre test was conducted with the help of self administered questionnaire to assess the knowledge of nutritional needs among adolescents. After pre test the structure teaching programme on nutritional needs of adolescents was given to the experimental group. The 50 students of experimental group were further divided into 7 groups each group consisting 7, 8 samples followed by post test was conducted. The result showed that the present study the pre test and post test knowledge score among adolescents in experimental group (i) Nutrient $t=6.039$ ($p=0.000***$) (ii) Source $t=5.900$ ($p=0.001***$) (iii) deficiency $t=7.720$ ($p=0.00***$) (iv) Problems $t=3.630$ ($p=0.001***$) (v) Overall $t=14.627$ ($p=0.00***$). It indicates that there is a significant difference in the pre and post knowledge between experimental group in all nutrient aspects at $p<0.001***$. The pre test and post test knowledge score among adolescents in the control group (i) Nutrient $t=0.603$ ($p=0.549$) (ii) Source $t=1.842$ ($p=0.072$) (iii) deficiency $t=4.529$ ($p=0.00***$) (iv) Problems $t=0.00$ ($p=1.00$) (v) Overall $t=2.798$ ($p=0.007$) which indicates that there was a significant difference in the pre and post test knowledge between control group in deficiency aspects at $p,0.001$ level.

I. INTRODUCTION

Adolescence is one of the most challenging periods in human development. It is a transitional stage of physical and mental growth in human development that occurs between childhood and adulthood. This transitional involves biological,

social and psychological changes that occur in our body and mind. (Wong and Whaley 2013)

Nutrition may be defined as the science of food and its relationship to health. It is primarily concerned with the part played by the nutrients in the body growth, development and maintenance. A good nutrient means maintaining a nutritional state that enables us to grow well. Adequate nutrition of any individual is determined by two factors. The first is the adequate availability of food in terms of quantity as well as quality, which depends on socio – economic status. Food practices are based on cultural, traditional and allocations of food. The second factor is the ability to digest, absorb and utilize the food. (T K Fakery 2014)

Nutrients are organic and inorganic complexes obtained from food. Most of the natural food contains more than one nutrient. These are divided into macro nutrients and micro nutrients. Macro nutrients are protein fats, carbohydrates whereas micro nutrients are vitamins, and minerals. Macro nutrient contributes to the total energy tool, but the energy they provide is all the same for utilization and consideration of the energy to build and maintain the body. Vitamins and minerals functions as coenzymes, co-catalysts and buffer in metabolism. (WHO 2012)

The prevalence of under nutrition is higher (53%) in boys than in girls (39.5%). A high rate of iron deficiency anemia is reported among adolescents Sri Lanka in (2002) region. There is, however, a great disparity in this region. There are disparities between rural and urban areas as well as in school going and non-school going adolescents. It was also observed that socio-economic status determined the occurrence of anemia among adolescents. The studies conducted in different settings in Bangladesh showed a high prevalence of sub-clinical vitamin A deficiency among adolescent. (T K John, 2009)

Adolescents are considered vulnerable to nutritional deficiencies for several reasons. Firstly, they have an increased demand for nutrients, because of the dramatic increase in physical growth and development. Second, the changes in lifestyle and food habits of adolescents affect nutrient intake and needs. Thirdly, adolescents have special nutrient needs associated with participation in sports. Development of eating disorder, excessive dieting, use of drugs, and other situations are common in adolescents (Sepal, 20012).

A large percentage of adolescents in the region, suffer from nutritional deficiencies. Dietary intake with respect to the adequate availability of food in- terms of quantity and quality (particularly, the mean – calorie intake) ability to digest, absorb and utilize food and the social discriminations against girls can greatly affect the adequate nutrition of adolescents. (N.HARSON et al 2007).

II. NEED FOR THE STUDY

Adolescent growth and development is closely linked to the diet they take during childhood and adolescence. Between the age of 14-18 years. They need plenty of protein to build the larger muscles that are developing very active. Adolescent boys who may consume up to 4,000 calories a day. Adolescence in girls starts at earliest with the main growth spurt usually occurring, 11-16 yrs. They may grow up to 10 cm in a year and put on up to 8 kg. girls are more weight conscious than boys and focus on calories they consume, and are therefore prone to nutritional deficiencies when their monthly menstruation cycle starts, girls need more of iron as well as calcium and zinc.

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III. STATEMENT OF PROBLEM

A study to assess the effectiveness of structured teaching programmed on knowledge regarding nutritional needs among adolescents in selected school at Chennai.

IV. OBJECTIVES

1. To assess pretest and posttest level of knowledge regarding nutritional needs among Adolescents.
2. To compare the pretest and posttest level of knowledge regarding nutritional needs among Adolescents.
3. To associate the posttest level of knowledge among adolescents with their selected Demographic variables.

RESEARCH HYPOTHESIS

1. There is a significant difference in the pre and posttest level of knowledge among
2. Adolescents between the experimental and control group.
3. There is a significant association in the post test level of knowledge among adolescents with their selected demographic variables experimental and control group.

ASSUMPTION

1. Adolescents were not aware about, nutritional needs factors influencing the nutritional needs and nutritional Problems.
2. Adolescents are in learning period and they can easily grasp the information and develop positive attitude.

V. MATERIAL AND METHODS

The study was done period of one month. Permission was obtained from the Headmistress Government High Schools of Mugalivakkam and Iyyappanthangal. The research design used for this study was quasi-experimental design. 100 adolescents were selected based on inclusive criteria (experimental group 50 and control group 50) through convenience sampling technique. Rapport was established with selected subjects & a brief introduction about the research purpose was given. The pretest was conducted with the help using self-administered structured questionnaire, to assess the knowledge.

After the pretest the structured teaching programmed regarding nutritional needs of adolescence was given to the experimental group. The 50 students of experimental group were further divided into 7 groups each group consisting 7,8 subjects. The structure teaching program me on nutritional needs of adolescence was given to each group under the supervision of Mugalivakkam Government High school Headmistress. Each session of structured teaching programmed on nutritional needs of adolescence lasted for about 30 minutes. At the end of teaching the investigator

clarified the doubts. Totally, the teaching and discussion lasted for about 45 minutes.

The post test for the experimental group was conducted seven days after structure teaching programmed on nutritional needs of adolescence by using self administered structured questionnaire. The Structured teaching on nutritional needs of adolescence was not given to the control group. After seven days a post test was conducted for the same group by using self-administered structured questionnaire. Collected data were entered in excel sheet and analyzed with proper statistical method.

VI. RESULTS

In the present study a total of 100 subjects were enrolled in experimental and control group. The overall knowledge among experimental group on nutritional needs of adolescents in pre test was 25 (50%) of adolescents had inadequate knowledge, 25(50%) had moderate knowledge and none had adequate knowledge. The overall knowledge among control group on nutritional needs of adolescents in pre test was 20(40%) had inadequate knowledge, 28(56%) had moderate knowledge and 2(4%) had adequate knowledge. In experimental group the pre test mean value for overall knowledge on nutritional needs of adolescents was 51.87 with the standard deviation of 8.08. In control group the pre test mean value for overall knowledge on nutritional needs of adolescents was 55.87 with the standard deviation of 15.08.

In experimental group the post test mean value for overall knowledge on nutritional needs of adolescents was 72.67 with the standard deviation of 9.90. In control group the post test mean value for overall knowledge on nutritional needs of adolescents was 62.53 with the standard deviation of 10.27. The mean, standard deviation and independent's' value of pre test knowledge score among experimental and control group. Indicates that there is a significant difference in the pre knowledge between experimental and control group at $p < 0.01$ and $p < 0.001$ level. The mean, standard deviation and independent 't' value of post knowledge score among the experimental and control group indicates that there was a significant difference in the post knowledge of experimental and control group at $-p < 0.001$ level. Association between post test knowledge and demographic variables among adolescents for control group shows the association between demographic variables and post test in control group. There was a significant association between the type of family, mother's education and number of children and level of knowledge at the level of $p < 0.01$.

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