Title: Impact of nutrition education program on knowledge and attitude of female students about dietary iron

Abstract: Introduction: Iron deficiency anemia affects a large number of women in developing countries, especially during childbearing years. It can cause reduced work capacity in adults and retards motor and mental development in children and adolescents. Iron nutritional status of adolescent girls is a matter of great concern especially in the urban poor and rural areas, since these girls enter reproductive life soon after attainment of their menarche. This study were aimed to evaluate the impact of nutrition education on knowledge and attitude of female students about dietary iron.

Materials and methods: This was an interventional experimental study (before and after). Seventy 12 to 14 years old girls (35 intervention and 35 controlled) with iron deficiency anemia, were randomly selected from two schools in the city of Ahvaz and divided into two equally matched groups, one received nutrition education, and one did not. The education group received instruction in face-to-face sessions, group discussions, and pamphlets in school classrooms once a week, for the period of three months. The control group did not receive any information during the study. Socioeconomic characteristics (including Information about age, parent education levels, parent’s job, family income and family number), nutrition knowledge and attitude about dietary iron were obtained by a questionnaire before nutrition education programs and two months after intervention. Descriptive statistics, independent and pair sample t-tests were done to analyze data.

Results: before the intervention there was no significant difference between two groups in terms of nutrition knowledge and attitude. Intervention group but not control revealed a significant increase in average knowledge and attitude scores from 22.31±3.64 to 32.40±4.94 (P=0.001) and 80.4±6.16 to 89.0±5.13 (P=0.004), respectively.

Discussion and conclusion: The results of the present investigation revealed that nutrition education was effective in increasing the level of nutrition knowledge as well as attitude. It seems that the nutrition education programs could be an effective strategy for improving the nutritional habits to increase dietary iron and preventing iron deficiency anemia in adolescent girls.