SUMMARY

Nutrition education for primary school children have positive results, as children aged 6-12 years are at a receptive period to achieve greater probability of success for change of improper food attitudes and habits.

The present study aimed to assess the knowledge and attitude of primary school children and their mothers, regarding nutritional needs; to design and implement a health promotion nutritional educational program for the primary school children and their mothers and to evaluate the impact of the health promotion nutritional educational program on the primary school children and their mothers.

This study was conducted in 6 governmental primary schools in Benha City and Toukh District in Kaliubeya Governorate. A total of 200 school children and their mothers were randomly selected and included into the present study. Three tools were used for data collection: an interview questionnaire that comprises sociodemographic characteristics of school children and their mothers; questions to assess the children's and mothers' knowledge; an interviewing questionnaire to assess mothers’ and children's attitude; and an observation checklist for assessment of the home environment concerning nutrition. Based on the results obtained from the interviewing questionnaire and the observation checklist as well as literature review, the health promotion, nutritional educational program for primary school children and their mothers was developed.
Main results were as follows:

- The main sources for information of mothers were relatives as stated by two thirds of mothers, followed by mass media as stated by less than half of mothers. On the other hand, the main sources for information about nutrition for schoolchildren were the family, as stated by almost two thirds of schoolchildren, followed by teachers, as stated by less than half of schoolchildren. It is also to be noted that the health unit was not a source of information about nutrition for mothers nor their children.

- In urban and rural areas, knowledge scores of mothers and their schoolchildren about nutrition improved significantly immediately after the application of health promotion nutritional educational program in all components. However, a slight decline occurred 4 months later.

- Before and after the application of health promotion nutritional educational program, knowledge scores of mothers and their children who were within the secondary and university educated groups were significantly better than those within the other groups.

- Before the application of health promotion nutritional educational program, knowledge scores of employed mothers and their schoolchildren were significantly better than those of unemployed mothers. However, after the application of the program, most differences were not significant.

- Before and after the application of health promotion nutritional educational program, knowledge scores of mothers and their children who were within the highest income group (≥400 LE) were significantly better than those within the other two groups of lower income.

- Attitude scores of mothers and their schoolchildren as regard nutrition improved significantly immediately after the application of the health
promotion nutritional educational program. However, 4 months later, there was a slight decline in the attitude score of the mothers.

- Attitude scores of mothers and their children who were within the higher education group were significantly better than those within the other groups.

- Attitude of mothers and their schoolchildren before, immediately after and 4 months after the application of the health promotion program differed significantly according to child's gender. Female schoolchildren and their mothers had significantly higher scores for attitude than those for male schoolchildren.

- Attitude of mothers and their schoolchildren before, immediately after and 4 months after the application of the health promotion program did not differ significantly according to mothers' employment.

- Attitude scores of mothers and their children who were within the highest income group (?400 LE) were significantly better than those within the other two groups of lower income.

- The most frequently observed item related to home environment as regard nutrition in urban areas was availability of enough pans for preparation of food table on which food is served (94%), followed by availability of a table on which food is served covering food pans (92%). In rural areas, the most frequently observed items were availability of stove for cooking and availability of a table on which food is served (76% for both). Insects were available in all homes (100%).

- Before and after the application of health promotion nutritional educational program, there were significant correlation coefficients between knowledge scores of mothers and their children.
Summary

- Total scores for mothers' attitude correlated significantly with their corresponding schoolchildren's scores before, immediately after and 4 months after the application of the health promotion nutritional educational program (p<0.001 for all correlations).

The present study concluded that the application of a health promotion nutritional educational program is an effective strategy to improve knowledge and attitude of mothers and their school children regarding nutrition of school children.

This study recommended that health promotion nutritional educational programs should be continuously implemented at primary schools, that should involve all school staff, including the school nurse; mass media should have an active role in nutrition education for the public. Unconstructive advertisements about junk food of low nutritional value should be stopped; education of females should be improved, since a better informed mother has a better informed child; essential information, habits and values concerning nutrition should be taught for children all through their school age; total community development, particularly in rural areas, including social, economic, environmental and cultural is a long-range strategy; the school curriculum about nutrition should be revised, updated and improved. Qualified teachers, nutritional specialists and the school nurse can participate in this important task; health team (including the nurse) at the local health unit as well as the school should carry on their educational role to improve the knowledge and attitude of mothers and their school children about nutrition. More research should be done concerning nutrition, especially in adolescence stage.