HEALTHY LIFESTYLE: THE ROLE OF EDUCATION IN IMPROVEMENT OF THE KNOWLEDGE OF PRIMARY AND MIDDLE SCHOOL STUDENTS IN ISFAHAN AND NAJAF-ABAD

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Abstract

INTRODUCTION: Lifestyle habits are established from early childhood and persist for many years, almost until the end of life. Thus, healthy lifestyle education should begin in childhood. This study was conducted to train primary and middle school students about healthy lifestyle via school campaigns and evaluate the results.

METHODS: One-hundred primary and middle school students were selected. Topics on healthy lifestyle were included in their New Year homework book (Peyk-e-Noroozi). Their knowledge about healthy lifestyle was evaluated via questionnaires. Data were analyzed with SPSS and Student's t-test ($P<0.05$).

RESULTS: The most significant learning of students from Peyk-e-Noroozi in both primary and middle school was the importance of physical activity and exercise (32% in primary school students and 37% in middle school students, $P<0.05$). Learning about healthy lifestyle from Peyk-e-Noroozi was significantly higher in primary school students than in middle school students (82% vs. 57%, $P=0.04$).

DISCUSSION: Our study suggests that healthy lifestyle education via school campaigns and media may have considerable effect on primary and middle school students. Such simple and feasible modes of educations should be integrated with the existing educational curricula.

Keywords • Education • Lifestyle • School students • School campaign • Peyk-e-Noroozi

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Introduction

Nowadays, Iranian health care providers are faced by the challenges posed by rapid lifestyle changes in the community. Nutritional disorders are increasing among Iranian children. Fatty and salty snacks, excessive consumption of chocolate and cookies, low fruit and vegetable intake and inadequate physical activity due to excessive television watching and computer games increase the risk of obesity.[1-4] The process of most chronic diseases starts from childhood (5-6 years) and it is well documented that children and adolescents can learn and accept healthy lifestyles more easily than adults, thus after proper healthy lifestyle education they can play an important role as health messengers to their families. They can learn not only how to live healthier, but also to improve family knowledge about healthy lifestyle.

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School-based interventions in nutrition and healthy lifestyle provide a good opportunity for effective healthy lifestyle education.[7] Schools have the opportunities, mechanisms and personnel for encouraging the children to learn more about healthy lifestyle.[8-9] Studies conducted in Western countries showed that intervention programs had a noticeable effect on the knowledge of students about healthy lifestyle.[10] Such studies are limited in developing countries. As Isfahan and Najaf-Abad have been selected as pilot cities for the community-based program entitled Isfahan Healthy Heart Program (IHHP) in Iran, we decided to study the effect of education via a model school campaign on increasing the knowledge of primary and middle school students about healthy lifestyle in these cities.

Materials and methods

In an interventional study, we selected 100 students (of both genders) from primary and middle schools in urban and rural areas of Isfahan and Najaf-Abad. The subjects were selected through multistage random cluster sampling.

Topics on healthy lifestyle were prepared by the IHHP team for training students in different grades and published in their New Year homework book (Peyk-e-Noroozi).

After the New Year holidays and return of selected students to their schools, two types of questionnaires (one with 6 open questions for primary school students and the other with 10 open questions for middle school students) were filled through face-to-face interviews with the students. These questionnaires included questions about healthy lifestyle according to what they had read about healthy lifestyle in Peyk-e-Noroozi. In the selected schools, trained school staff interviewed the students.

Data were analyzed with SPSS using Student's t- test. The significant level was set at $P<0.05$.

Results

Seventy percent of elementary school students and 64% of middle school students had seen the IHHP logo. Figure 1 shows the location where they had seen the logo.

Most primary school students believed that home-made sandwiches (bread and cheese) and fruits were healthy snacks (figure 2). Eighty-two percent of primary school students and 43% of middle school students expressed that IHHP educational topics in their New Year homework book had increased their knowledge.

Figures 3 and 4 show the topics learned by students and indicate that most of them had learned about benefits of increasing their physical activity.

Most middle school students believed that consumption of fatty foods followed by stress and physical activity were the most important CVD risk factors (figure 5).

As shown in figure 6, most middle school students reported that genetics and consumption of fatty and salty foods, respectively, were the most important factors predisposing to CVD.

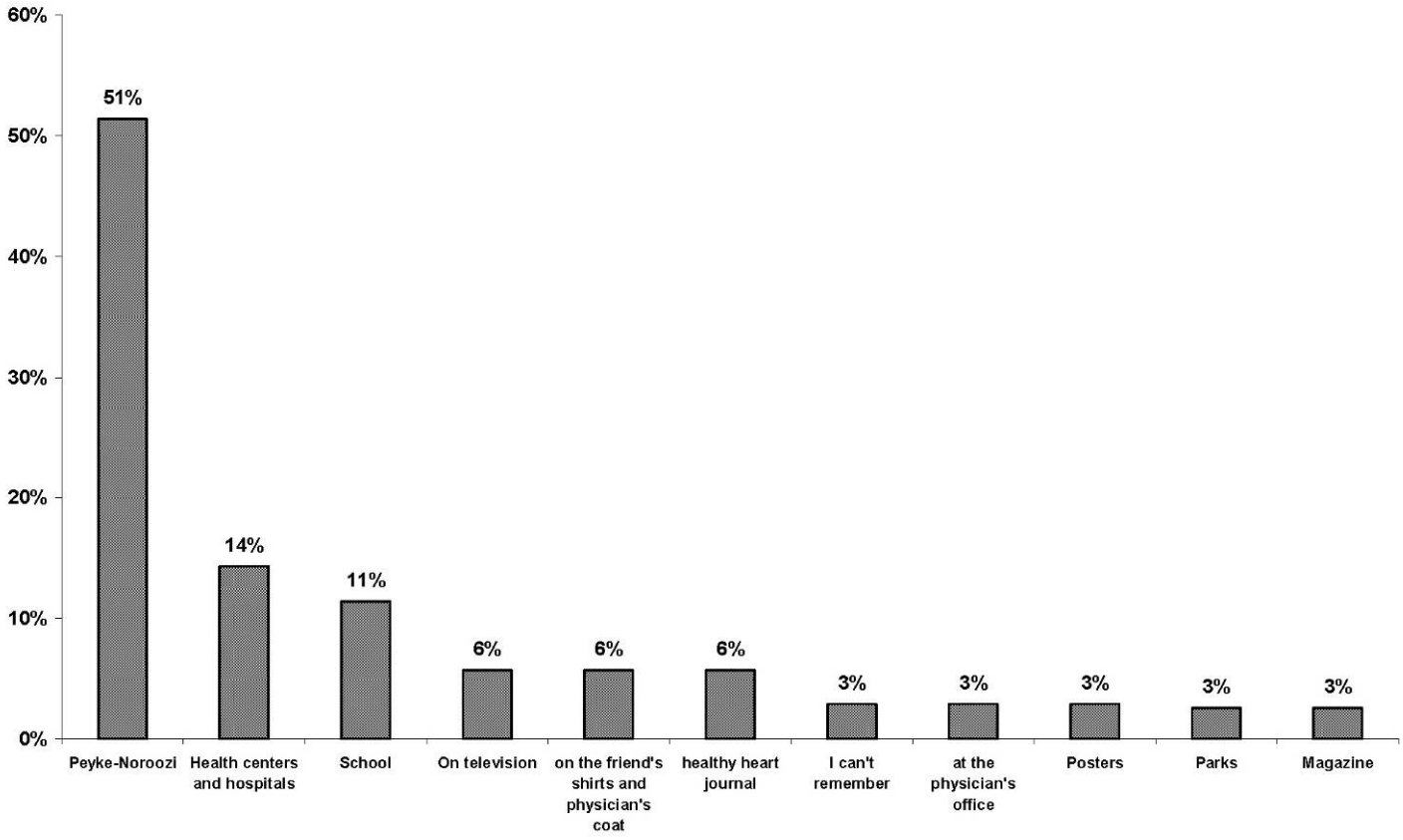

FIGURE 1. Where have you seen the IHHP logo?

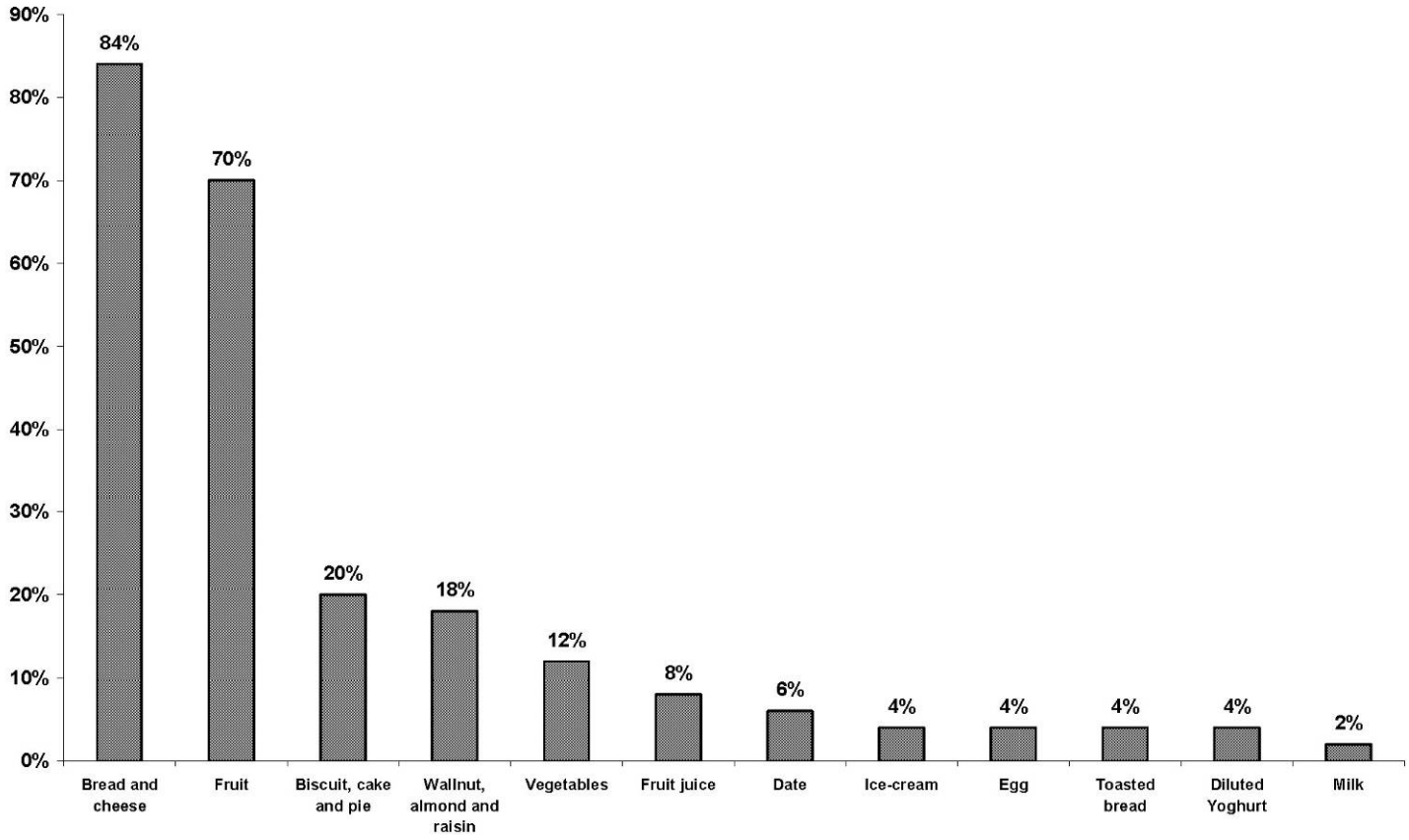

FIGURE 2. Which snack is better for school?

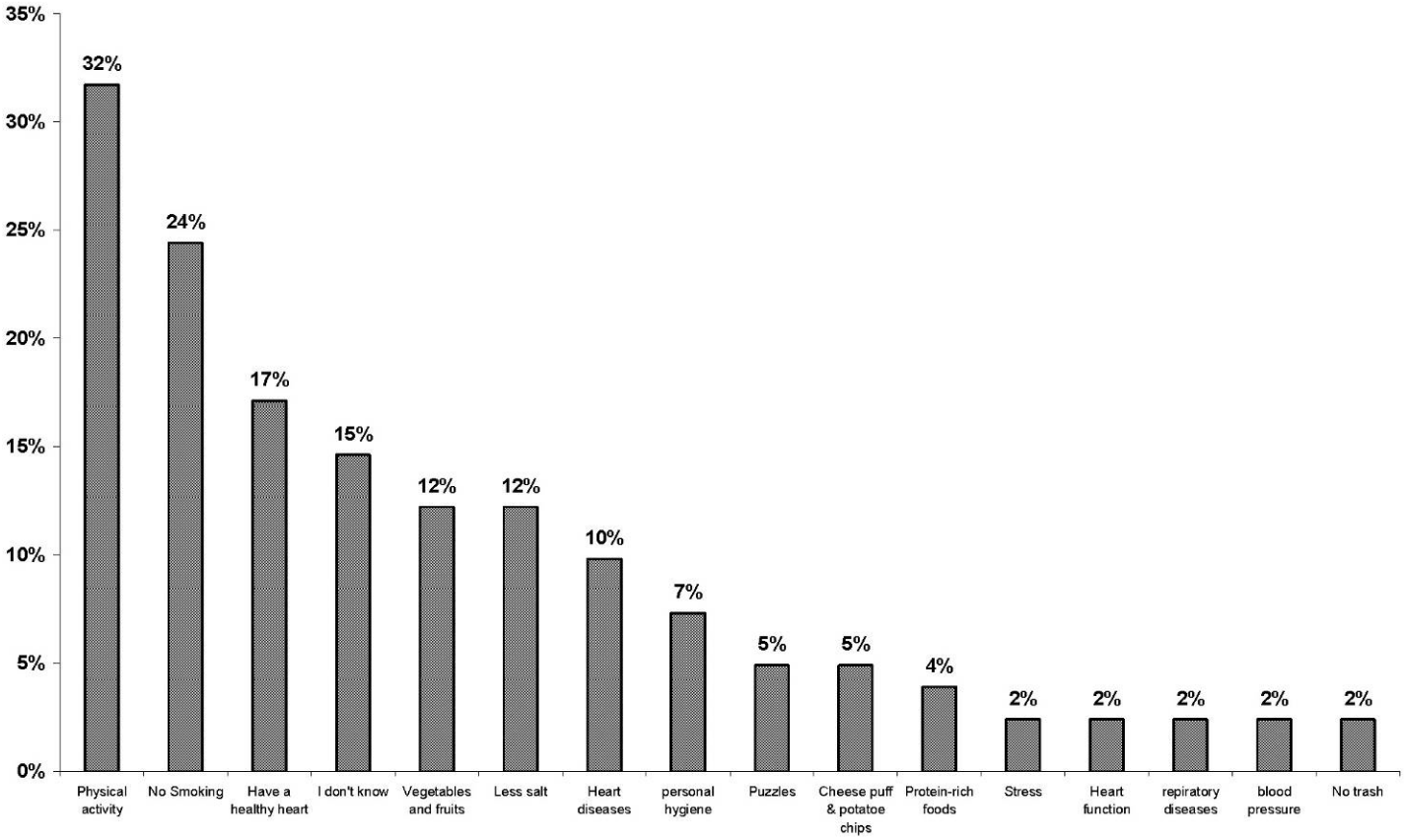

FIGURE 3. What did you learn about the IHHP in Peyk-e-Noroozi?

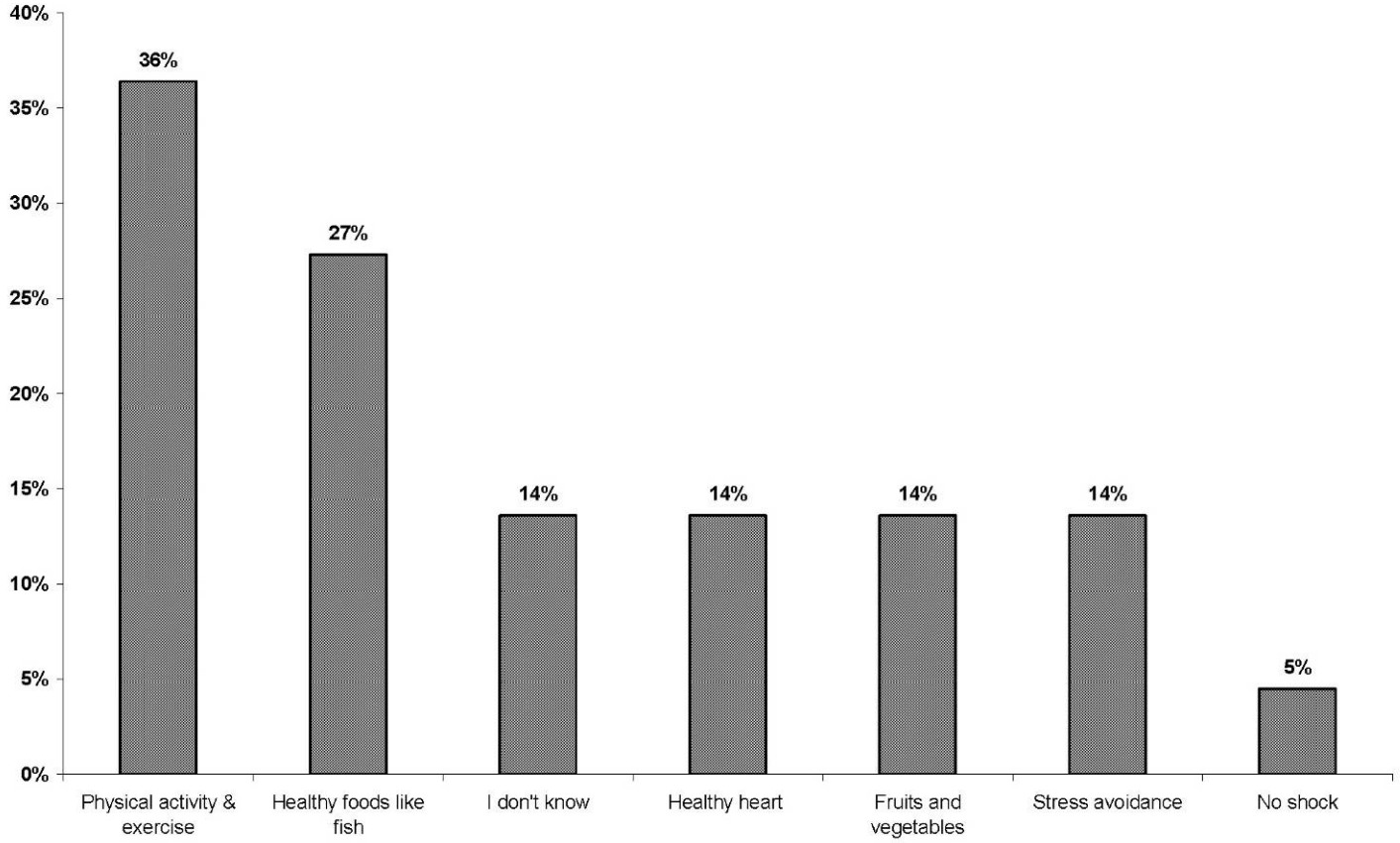

FIGURE 4. What did you learn about the IHHP in Peyk-e-Noroozi?

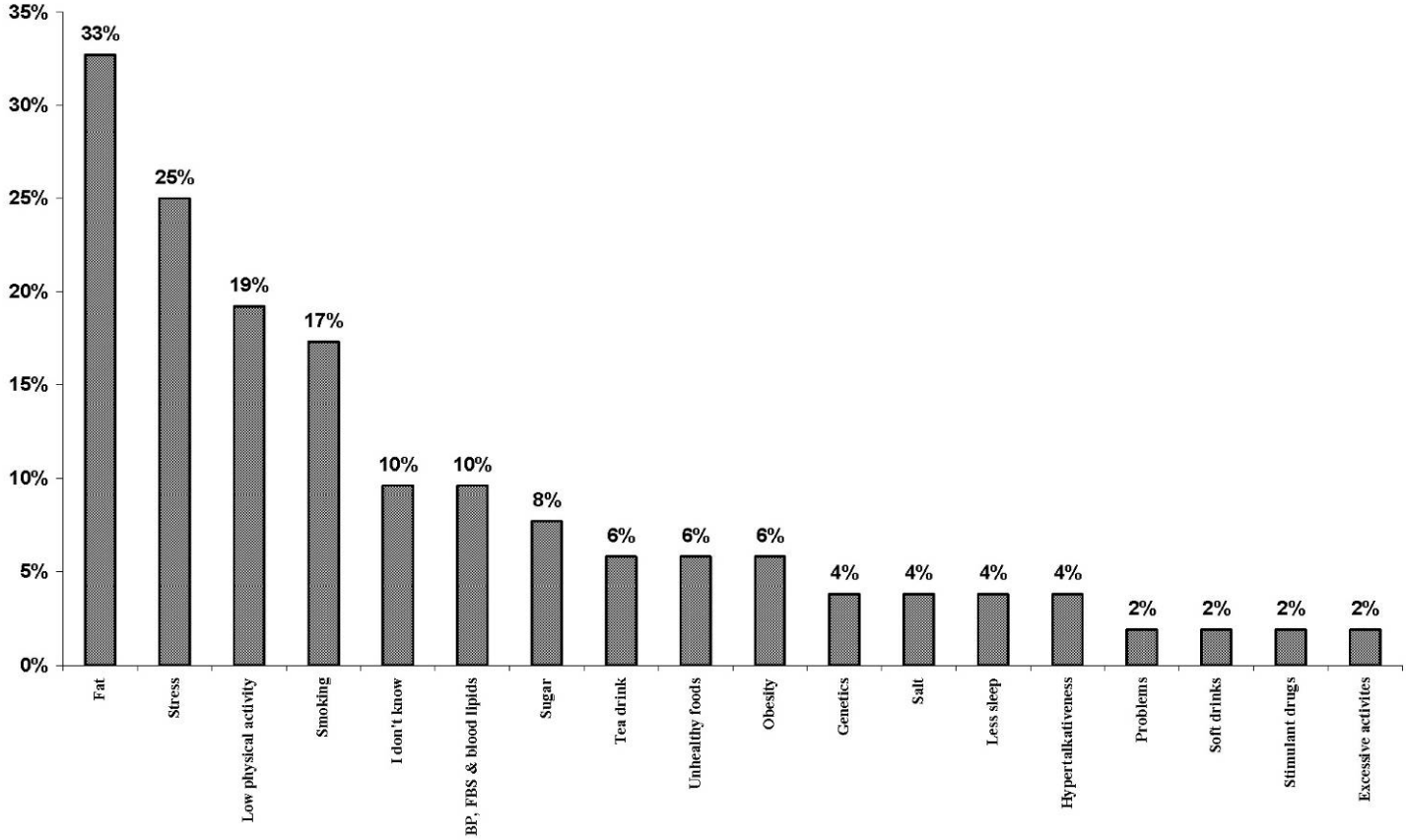

FIGURE 5. Which factors increase the risk of cardiovascular diseases?

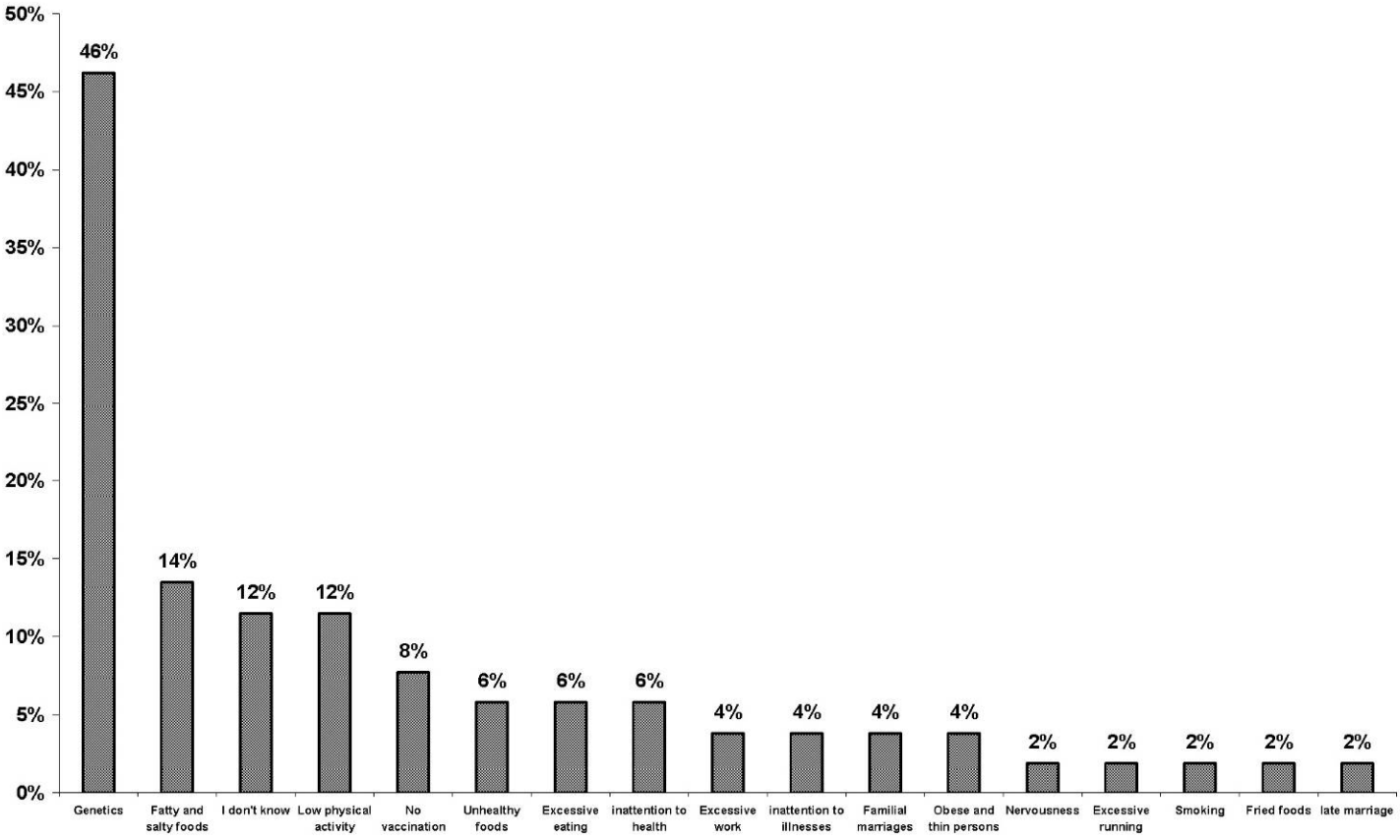

FIGURE 6. In which conditions are children at risk of premature cardiovascular diseases?

Discussion

Our study showed that in both selected student groups (primary and middle school students) more subjects had seen the logo of the healthy heart program (IHHP) (70% in primary school and 60% in middle school) and more primary school students (70%) had seen this logo than middle school students(60%). In both groups, most of students had seen the healthy heart program logo in Peyk-e-Noroozi (52% of primary school students and 50% of middle school students). In middle school students, television was the second place where the IHHP logo had been sighted. Eighty-one percent of of primary school students and 57% of middle school students learned about the IHHP in their Peyk-e-Noroozi homework book. These results show that more primary school students learned from Peyk-e-Noroozi than middle school students.

In both groups, most of the students learned about physical activity and exercise from Peyk-e-Noroozi (32% in primary school students and 37% in middle school students). The frequency of "I don't know" answers to the question "What did you learn about IHHP in Peyk-e-Noroozi?" was very close in the two groups (14% in middle school students and 14.5% in primary school students.

Most middle school students (46%) referred to genetic factors as the most important risk factors of cardiovascular diseases. High-fat and salty foods (mentioned by 14.5%) came second and third, low physical activity (mentioned by 12%) was fourth, and smoking (mentioned only by 2%) was fifteenth on a scale of 1 to 17.

In response to a question about the benefits of regular physical activity, 67% of middle school students (the majority) cited "health" and 19% cited "prevention of cardiovascular diseases". Health has an expanded meaning and embodies prevention of cardiovascular diseases, but most of the students only mentioned health without giving any details.

High fat consumption, stress, fear and nervousness, low physical activity, and smoking were mentioned by 32.5%, 25%, 19%, and 17% of middle school students, respectively, as cardiovascular disease risk factors. However, only 5.5% considered obesity as a cardiovascular disease risk factor.

It seems that middle school students need more information about the hazards of obesity as a major cardiovascular risk factor.

Most middle school students (15%) suggested more scientific and medical information was needed for better understanding of healthy lifestyle, 13.5% suggested the use of media as a training tool on healthy lifestyle and 7.8% suggested school campaigns.

These findings emphasize the necessity of training children and adolescents about healthy lifestyle and primary prevention of chronic diseases.

This study had limitations such as the lack of pretest questions and insufficient number of participants. We conclude that most of the students in our study in both groups (primary and middle school students) received some information about the IHHP from their New Year homework books (Peyk-e-Noroozi). The most significant learning in both groups was the importance of increasing physical activity and exercise for healthy life. Primary school students learned more from Peyk-e-Noroozi than middle school students. This underlines the importance of healthy lifestyle education from lower age and before establishment of habits.

Our findings suggest that healthy lifestyle education via school campaigns and media (radio and television) may have a considerable educational effect on primary and middle school students.

Peyk-e-Noroozi and similar school activities can play a major role in training the children and adolescents. Such simple and feasible modes of education should be integrated with the existing educational curricula.

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