

## The Impact of Health Promoting Program on the Increased Health Awareness of Karaj Girl High School Students in the Academic Year 93-94

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### Abstract

Considering the fact that schools are good places to measure the effectiveness of health education programs, the health problems of this age group should be stopped before they are exacerbated, and the safety of this group should be managed in practice. Investment on the health of this group in educational settings has been recommended by the WHO (World Health Organization) as one of the most important interventions of the health systems in the form of a comprehensive program called "Health Promoting Schools". Evaluation of health promotion indexes in schools is considered an appropriate tool for assessing the effectiveness of health interventions. This study is an attempt to investigate the impact of health promoting program on the increased health awareness of girl high school students in Regions 1 and 2 of Karaj in the academic year 93-94.

**Methodology:** The research is an applied research; the method used in the research is descriptive-analytical; the research space is girl high schools of Regions 1 and 2 of Karaj Township; the population includes 200 girl high school students; the data collection method used in the research is simple random sampling, 100 students selected from grade 1 and 100 others selected from grade 3. The data collection tool is a researcher-made questionnaire based on the checklists of the program, and the data have been analyzed using SPSS software and descriptive-inferential statistics (Chi-square Test and T-test).

**Findings:** The General findings of the research (personal hygiene index with an average of 2.37, healthy nutrition with an average of 2.73, mental health with an average of 1.85, environmental health, security and protection with an average of 2.04, healthy lifestyle with an average of 2.13, physical activity and exercise with an average of 2.52, non-communicable diseases with an average of 1.78 and communicable diseases with an average of 2.86 less than the average of the table) indicate the ineffectiveness of the trainings presented to the students attending the health promoting schools. This finding seems to be incompatible with most of the research findings about the effectiveness of health education, but compatible with the studies that have investigated the impact of this plan on the health affecting factors.

**Conclusion:** Due to the inconsistency of the findings of this research with the reasonable expectations of the program, similar and complementary studies are advisable to be conducted in other spots so that the total studies can lead us to better results. The methods of executing the program should be evaluated and revised in order to make the program more effective, and the health management of schools as one of the main centers in health promotion strategies should receive the policy-makers' attention as the complementary part of education in all schools of the country. The dangers include

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### Introduction

Adolescence and youth are the most challenging, stressful, interesting and yet problematic era of life not only for adolescents and youth, but also for their parents, teachers and the experts of health in the society. The issue of adolescents and youth's health can be regarded as the hazardous developmental issues. The risks include drugs, sexually transmittable diseases, disorders of suicide and depression. These hazards suggest the necessity and urgency of understanding the adolescents and youth's health. Nowadays, investment on the adolescents and youth's health in educational settings is so important that it has been recommended by the WHO (World Health Organization) as one of the most important interventions of the health systems in the form of a comprehensive program called "Health Promoting Schools". In all countries of the world, the chronic non-communicable diseases, especially cardiovascular diseases are the number one reasons for death for all ages. These diseases have been recognized as risk factors, the prevention of which requires a specific culture and instructions on the healthy way of living and should be taken into consideration from the very ages of childhood and adolescence (Gilbert et al., 1995). Nowadays, the young girls of our country are faced with a plethora of problems, the main cause of which can be sought in the school ages. Moreover, the technological developments and the speed of information transfer and the changes in life style have brought about irreparable damages and threats in this age group (Rafieifar, 1389). Adolescent girls are actually the future mothers. Therefore, it is especially important to make plans about the health of this group of community, as the health of today's girls is equivalent to the health of the future generation and the health of the society. Considering the fact that schools are good places to measure the effectiveness of health education programs, the health problems of this age group should be stopped before they are exacerbated, and the safety of this group should be managed in practice. However, very few studies have been conducted in this field, which requires further attention and investment (Rafieifar, 1389). Schools are students'

second houses and a place for their social education. A large part of students' lives is spent in schools. The role played by schools becomes more and more important with an increase in problems such as poverty, corruption, single-parent families, violence, misbehavior and inattention (Davis et al., 2006). Since education and health, as the citizens' fundamental rights, are interdependent, no desirable level of each can be obtained in absence of the other, and the combined and integrated development of the two has numerous benefits for the community. Students are children or adolescents who are at the best age of acquiring the skills of healthy life (Ramazankhani, 1390). Nowadays, despite the fact that the rapid growth of technologies and progress in science and technology has brought about considerable comfort and tranquility for humanity, evaluations reveal that despite the economic and industrial developments of countries, the psychosocial problems have also increased. Iran is also faced with the increasing growth of problems such as addiction to drugs, divorce, AIDS, violence and so on due to its special features such as its being located in the transit route for drug trafficking, its young population, the experience of war, emigration, earthquakes, emigration, the rapid growth of technology and rapid cultural changes, and these conditions demand that those involved in education have great influence on families in all dimensions in order to prevent from damages to them. Promoting the families' awareness and improving their attitudes and performance can bring about positive changes in them. From this perspective, students should be regarded as the messengers of health, who can play an active role in promoting the health of the community, as they include over one third of the population of the country (Saki, 1392). Many behaviors affecting individuals' health and life style originate from the student ages. Although the death and morbidity rate is rather less in student ages than in other ages, the behaviors and life styles that start at these ages have a principal impact on diseases (such as cardiovascular diseases, problems arising from accidents and diabetes) in the whole society (Pate et al., 2006). Accordingly, schools are valuable places where subjects of the target group can be provided with health programs. This guarantees the cost-effectiveness of the programs. Moreover, the position of schools as an effective institution in social movements, turns this place into an appropriate place for the execution and promotion of healthy life styles at the level of society.

### **Literature**

#### **The importance of health**

Health as the first cornerstone in education, has received the attention of the helpful teachings of Islam such that "healthy mind is in healthy body" has been accepted as an unquestionable principle, and the main goal in education is raising healthy individuals who can think well, are knowledgeable and creative, and are capable of establishing good social relations, which is possible, as emphasized by the Supreme Leadership, only by observing the three principles of edification, education and exercise (health and joyfulness), which have been stressed as the top policies and executive actions of the Ministry of Education. Definitely, formulating the strategic document of health which includes policies, procedures and operational strategies not only coordinated the process of health in schools, but it also normalizes individual and public behaviors, promotes the students' health level and directly or indirectly affects the learning processes (Navid Edham, 1390). In the health promotion approach, a particular attention is paid to governments' investment on health; that is, governments' efforts to control people's health through economic and social changes, and since different factors influence health, investment should be made in different fields for health promotion. Education development, social justice, security, appropriate nutrition, and employment all lead to the development and promotion of health. Due to the fact that Iran has a young population, by investing on the youth's health, one can expect the investment for this group to be a profitable investment (The Secretariat of Health Determining Social Factors (1390).

#### **The health-determining social factors**

Health is a category with an undeniable role in promoting the human development indexes. Therefore, it is a priority of all the members of a community as well as the government's most important duty to fight against the factors that influence health and bring about inequalities in it. Those societies which have millions of children and adults incapable of productive and fruitful life will never be sustainable. Establishing justice in health and fighting against the factors determining and influencing health are not exclusively within the framework of the duties of the Ministry of Health, Treatment and Medical Education, but all members and decision-makers of the society should have a health-based outlook and all sectors should place health and safety at the center of their programs. There are definitely social problems such as poverty, unemployment and illiteracy in all countries with different dimensions, and it is the governments' ultimate desire to find an appropriate strategy for removing the barriers to their people's welfare, security and health (The Secretariat of Health Determining Social Factors (1390). On the whole, it can be concluded that the conditions under which people grow, live and work, and people's age influence their health. Inequality in these conditions will result in inequalities in health. Fortunately, these inequalities in health, whether inside or between countries, are mostly avoidable. Success in health improvement and reduction of these inequalities depends on solemn attention to the background social factors. Technical solutions in the health sector are also important, but we should note that these solutions are not enough. Attention to the social factors determining health also needs wider areas of expertise and more sustainable actions (Fereshtehnejad, 1387).

#### **The importance and necessity of health planning**

Planning about students' health problems in order to promote their awareness and develop the health culture among them is of particular importance. Health and safety are considered the rights of the children of any society. Educational experts have prioritized students' health problems secondary to mothers and infants' health problems, because this group are the most vulnerable groups of society against different social, mental and physical invasions, while they themselves play no part in the creation of those problems. A large part of these damages arises from lack of health knowledge, insight and behaviors, whereas human has the knowledge and

technology to remove those problems (Safi, 1385). The sanitary problems arising from lack of access to healthy water, basic sanitary equipment and services, communicable diseases in countries. Fight against these problems requires an all-round effort. The lack of control of some of these problems is the direct result of insanitary habits and incorrect life styles. Developing sanitary habits should start with the very beginning of life at school so that it can prevent from the emergence of many diseases and physical and mental disorders that block our way to reach a healthy and successful adulthood and senescence or at least delay their outbreak (Ne'mati, 1388).

#### **Health promoting Schools**

The health promoting schools program includes wide dimensions of health in educational settlements, and all aspects including the school environment, parents and students' physical, mental, social and spiritual health, mental health. On this basis, the health promoting schools network has been developed in countries and all the weaknesses and strengths of the schools are portrayed in regional meetings. In this program, the standards of health promoting schools have been formulated and related certificates have been designed at five levels, determined with special stars, based on which the schools are prioritized (Linage et al., 2005). An important way of promoting students' health is the execution of the different projects of health education with focus on their active participation in different health activities. On the other hand, the realization of the schools' health goals involves the intervention, participation and partnership of house, school, health and medical centers and the society. Health education and promotion is based on peer education (including: prevention of risky behaviors and violence, prevention of drug abuse, personal hygiene, reproductive health, nutrition, mental health, immunization, physical activity, healthy lifestyle, social participations, responsibility, self-care culture, communicable and non-communicable diseases, health promotion of schools' environment, improvement of students' nutrition, prevention of abuse, empowerment in the field of social rights and reproduction and gender health (Ardalan, 1389). The principle aim of this care system was to find access to the process of updating students' health information and to manage it with the parents and school personnel's all-around participation. Health promoting schools are not only suitable places to find priorities, establish programs and supply sufficient resources for adolescents, youth and schools' programs, but they also make it possible for different countries of the world to exchange ideas and create appropriate conditions for competition among the countries of the region. These schools make it possible to dynamically register and analyze the process of health changes in the age group of adolescents and youth of the country and pave the way for the application of centralized management (Elder, 1996).

#### **Methodology**

##### **The research method**

This is an applied research conducted using descriptive-inferential method. The descriptive method has been used in the demographic part and inferential statistics has been used for the research variables and the response to the research questions and hypotheses. The population of the research includes students of girl high schools of Regions 1 and 2 of education in Karaj Township from Alborz Province. The number of girl high schools in Region 3 which are under the health promoting program is ten and these schools have 4300 students. The number of girl high schools in Region 1 which are under the health promoting program is eight and these schools have 3600 students. The sample was selected from the two regions using simple random sampling method and the students were selected from one high school in Region 1 and from 2 high schools in Region 3. On the whole, 400 students were surveyed and 362 questionnaires were ultimately examined. The data were collected using the researcher-made questionnaire in eight domains of awareness assessment (related to the eight components of HSP= Health promoting schools), with 24 questions (of closed type) and five questions of demographic part with only one open-type question related to address. The data were finally analyzed using SPSS software.

##### **The validity and reliability of the questionnaire**

Validity means that the content of the data gathering tool or the questionnaire items exactly measure the variables and the subject under study (Sarmad et al., 1390). It means that the questionnaire should be able to measure exactly what it is purported to measure. In other words, the gathered data should not exceed that needed by the research and the data required for assessment of the variables should not be omitted from the content of the data collection tool. In order to determine the reliability of the questionnaire items and their relation with the research goals and questions and to make sure about the reliability of access to similar results under repeated administrations of the research, we consulted experts in the field. Reliability refers to the degree to which measurement in similar conditions has similar results. For the validity of the questionnaire items, the questionnaire used was based on the training package of the executive instruction of health promoting schools in the Islamic Republic of Iran in 1389-1391, which was designed by the Health Assistance of the Ministry of Health and the Office of Population, Family and Schools' Health and the Office of Adolescents and Youth's Health.

#### **Data analysis**

##### **The Research Hypotheses**

- The main hypothesis of the research: The execution of health promoting programs affects girl high school students' level of awareness in Regions 1 and 3 in Karaj Township.

##### **The research sub-hypotheses:**

- The execution of health promoting programs affects girl high school students' level of awareness of personal hygiene and puberty hygiene in Regions 1 and 3 in Karaj Township.
- The execution of health promoting programs affects girl high school students' level of awareness of healthy nutrition (nutritional value of traditional foods as compared with fast foods, the characteristics of buffet foods, ...) in Regions 1 and 3 in Karaj Township.

- The execution of health promoting programs affects girl high school students' level of awareness of mental health (prevention of risky behaviors, addiction and AIDS, how to fill their free time) in Regions 1 and 3 in Karaj Township.
- The execution of health promoting programs affects girl high school students' level of awareness of environmental health, security and protection of the environment) in Regions 1 and 3 in Karaj Township.
- The execution of health promoting programs affects girl high school students' level of awareness of healthy life style in Regions 1 and 3 in Karaj Township.
- The execution of health promoting programs affects girl high school students' level of awareness of the physical activity and exercise program in Regions 1 and 3 in Karaj Township.
- The execution of health promoting programs affects girl high school students' level of awareness of communicable and non-communicable diseases in Regions 1 and 3 in Karaj Township.

### Testing the research sub-hypotheses

The analyses done by use of SPSS software for the confirmation or rejection of the research sub-hypotheses have been shown in the following table.

Table 1. Results of the research sub-hypotheses

The status of the hypotheses	Level of significance	Degree of freedom	t	Standard deviation	mean	Sample size	index
Significant relationship	0/0001**	341	11/15-	1/03	2/37	342	personal hygiene
No Significant relationship	0/0001**	352	6/31-	0/77	2/73	353	healthy nutrition
Significant relationship	0/0001**	342	17/77-	0/85	2/18	343	mental health
No Significant relationship	0/0001**	346	21/02-	0/84	2/04	347	environmental health, security and protection
No Significant relationship	0/0001**	346	15/89-	0/95	2/18	347	healthy lifestyle
No Significant relationship	0/0001**	350	9/56-	0/92	2/52	351	physical activity and exercise
Significant relationship	0/439	346	775/-	0/84	2/96	353	communicable diseases
No Significant relationship	0/0001**	338	26/98-	1/82	1/78	339	non-communicable diseases

The ninth hypothesis: We used Freidman Test to rank the levels of awareness based on the h health promotion program. As the level of significance in Chi-square Test is smaller than 001 alpha, it can be said that there is a statistically significant relationship between the ranks of the awareness levels. On this basis, the results of rating each element from the highest to the lowest rank have been shown in Table (2). The results reveal that awareness of communicable diseases has the highest rank, while awareness of non-communicable diseases has the lowest rank. The following table shows the elements in the order of importance.

Table 2. Ranking the variables

Mean rank	elements	row
6/49	communicable diseases	.1
6/04	healthy nutrition	.2
5/18	physical activity and exercise	.3
4/59	personal hygiene index	.4
4/06	healthy lifestyle	.5
3/49	environmental health, security and protection	.6
3/17	mental health	.7
2/49	communicable diseases	.8

### Research results based on the hypotheses

- Determining the impact of health promoting program on students' level of awareness of personal hygiene and puberty hygiene  
The items that respond this question and the obtained mean which is 2.37 show that the obtained mean is smaller than the assumed mean of the population. The null hypothesis is thus confirmed, indicating that the execution of health promoting programs has not affected girl high school students' level of awareness of personal hygiene and puberty hygiene in Regions 1 and 3 in Karaj Township.
- Determining the impact of health promoting program on students' level of nutritional awareness  
The items that respond this question and the obtained mean which is 2.73 show that the obtained mean is smaller than the assumed mean of the population. The null hypothesis is thus confirmed, indicating that the execution of health promoting programs has not had a significant effect on girl high school students' level of awareness of healthy nutrition except for an increase in awareness of anemia iron deficiency in Regions 1 and 3 in Karaj Township.
- Determining the impact of health promoting program on students' level of awareness of mental health  
The obtained mean is 2.73 and smaller than the assumed mean of the population. The null hypothesis is thus confirmed, indicating that the execution of health promoting programs has not affected girl high school students' level of awareness of mental health in Regions 1 and 3 in Karaj Township.

- Determining the impact of health promoting program on students' level of awareness of environmental health, security and protection  
Considering the fact that the obtained mean is 2.04, which is smaller than the assumed mean of the population, the null hypothesis is confirmed, indicating that the execution of health promoting programs has not affected girl high school students' level of environmental health, security and protection in Regions 1 and 3 in Karaj Township.
- Determining the impact of health promoting program on students' level of awareness of healthy life style  
The obtained mean in this hypothesis is 2.18, which is smaller than the assumed mean of the population. The null hypothesis is thus confirmed, indicating that the execution of health promoting programs has not affected girl high school students' level of awareness of healthy lifestyle in Regions 1 and 3 in Karaj Township.
- Determining the impact of health promoting program on students' level of awareness of physical activity and exercise  
The obtained mean which is 2.52, which is smaller than the assumed mean of the population. The null hypothesis is thus confirmed, indicating that the execution of health promoting programs has not affected girl high school students' level of awareness of physical activity and exercise in Regions 1 and 3 in Karaj Township.
- Determining the impact of health promoting program on students' level of awareness of communicable diseases  
As the obtained mean is 2.86, it can be said that there is a significant difference between the obtained mean and the assumed mean, and the null hypothesis is thus rejected. The result is that the health promoting program has a significant impact on the students' level of awareness of communicable diseases. However, the null hypothesis indicated the smaller or equal influence to the population mean ( $H_0: \mu \leq \mu$ ), and the alternative hypothesis indicated the greater effect than the population mean, and has no significant effect on the item that differentiates between cold and influenza.
- Determining the impact of health promoting program on students' level of awareness of non-communicable diseases  
Considering the fact that the obtained mean is 1.87, which is smaller than the assumed mean of the population, the null hypothesis is thus confirmed, indicating that the execution of health promoting programs has not affected girl high school students' level of awareness of non-communicable diseases in Regions 1 and 3 in Karaj Township.

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