EVALUATION OF EFFECT OF TRAINING THE HEALTH PROMOTING SCHOOL PLAN ON CHANGING ATTITUDE TOWARDS REDUCTION OF HIGH-RISK BEHAVIORS (SMOKING, ALCOHOL CONSUMPTION, DRUG ABUSE) AND INCREASE IN MENTAL HEALTH OF STUDENTS

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ABSTRACT
This study includes in quasi-experimental studies (pretest, posttest with control group) with the aim of evaluation of effectiveness of training health promoting school plan on changing attitude towards reduction of high-risk behaviors and increase in mental health of pre-university students. Statistical population of this study includes all Pre-university male students in Tehran, Iran and statistical sample of this study includes 40 Pre-university male students in Mathematics and Physics in Region 4 of Tehran who were selected using multistage sampling and randomly included in two groups (20 in test group and 20 in control group). The applied tool was has been questionnaire of changing attitude in high-risk behaviors and general health questionnaire (GHQ-28). There have been 12 2-hours treatment sessions for test group participants while control group received no intervention during this period. At the end of treatment sessions, study too was implemented as pretest for participants. The information of questionnaires was analyzed using descriptive statistics including mean and standard deviation and inferential statistics including covariance analysis. According to the obtained results of this study, it could be found that training the health promoting school plan effects on changing attitude towards reduction of high-risk behaviors (addiction and drug abuse, smoking, alcohol consumption) and increase in mental health of re-university students.

Keywords: Health Promoting School, High-Risk Behavior, Mental Health, Health Promoting School Plan

INTRODUCTION
School is the second home and a place of social education for children. The big part of the children life is increasingly at the disposal of school. In accordance with increasing problems such as poverty, promiscuity, single-parent families, violence, abuse and in attention, the role of schools is becoming more important (Flaherty et al., 1996).

The current evidences indicate that many children and adolescences grow up without any family support or attention. The indices of drug abuse, sexual risk behaviors, delinquency, suicide and poor performance in school would indicate increasing problems and high-risk behaviors of children and adolescences. These factors potentially prevent from positive and creative role of children and adolescences in society. In this case, school beside the family is able to perform in such a way in order to prevent from behavioral problems of children and adolescences and increase their ability (Weissberg et al., 2003).

Health promoting schools would perform their programs through creating work groups, participation of teachers, students and parents and consultation with schools with a close relationship in order to achieve a healthy environment and prevent from violence and abuse through a place full of trust and educational and health opportunities. If the mentioned environment is no available for students, they will be face diseases and problems or try to be absent in classes and or work out in order to provide economic and social life of the family (Motlagh et al., 2010).

In fact, healthy students have the main role in success and development of a country because they could form their life style through interactions with other students, teachers and learning healthy behaviors (Xu...
According to the mentioned points, World Health Organization has defined promoting health school based on the Ottawa Charter in 1995 (World Health Organization (WHO), 1995). Accordingly, the whole environment and aspects of school including three scopes of learning at class, total capacity of school and close relationship between home, school and society would constantly strengthen health (Lynagh et al., 1997).

It has been accepted that promoting health schools have different performances and effects on programs including reduction of smoking, alcohol, drugs, sexually transmitted diseases, mental health promotion and weight control (Greenberg et al., 2003, Eldredge et al., 1996).

According to different studies conducted in various countries, there are many effective factors in high-risk behaviors that change mental health of persons in different aspects. The mentioned factors are included in dealing with feelings of depression, anxiety, inefficient, loss of confidence, lack of satisfaction with life, inability to accept self and such problems (Reininger and Evans, 2005).

According to Phuphaibul et al., (2005), education and intervention by teachers have had a positive effect compared to the control group on adaptive behaviors and mental health such as depression, anxiety, psychosis and social performance of high school students.

Another study has been conducted under the title of “effectiveness of life skills training program to prevent drug use among school students in the city of Tehran in the academic year 81-80” in which, 1862 male and female students in frame of control and test groups. Students of test groups participated in training classes while students of control group did not participated. According to obtained results, it could be found that there was a significant increase in information level of student about drugs and their effects after participating in life skills training classes and students of test group had a different attitude towards drugs and more information and skills level than students of control group so that such programs could be considered as a protective factor to reduce drug use (Tarmorian, 2008). According to Epstein (2000), there is a relationship between aggressive, maladaptive behaviors and use of cigarettes, alcohol, marijuana, and heroin. Botvin and Barker (1984) have stated that relation skills training in decisions about anxiety and stress can effect on reduction in use of cigarettes, alcohol and drug. Edvard (2004) claimed that skills training had a considerable effect on reduction in use of alcohol, marijuana, cigarettes and drugs among women.

Larsman et al., (2011) have studied all conducted studies in field of high-risk behaviors. According to the obtained results of this study, age, ethnicity, economic status, exposure close to a negative perception, control, perception, knowledge, obsession and misconceptions are considered as covariates in high-risk behaviors. Accordingly, there was a negative and positive relationship between negative perception and high-risk behaviors. The other results of this study indicated that danger perception by adolescences and their knowledge of perception control (reaction and self-efficacy) would encourage responsibility of adolescences.

Since high-risk behaviors can considerably effect on life of youth and their surrounding people, it would be essential for parents, elder lies and teacher to be aware of effective factors in order to prevent or reduce such high-risk behaviors (Song, 2009).

According to the mentioned points, it would be necessary for researcher to find the effects of health promoting school plan on reduction of high-risk behaviors and increase in mental health of students.

MATERIALS AND METHODS

Methodology

This quasi-experimental study (including pretest and posttest with control group) has been conducted to assess the effect of training the promoting health plan on reduction of high-risk behaviors and increase in mental health of pre-university students.

Promoting health plan has been considered as independent variable while mental health and high-risk behaviors have been considered as dependent variables. Control variables have been age (17-18 years old), gender and social region (region 4).
Research Article

Statistical population of this study includes all female pre-university students studying in Tehran during Academic year of 2014. Statistical sample of study includes female pre-university student (N=675) studying in mathematics and physics in region 4 of Tehran and 40 students were selected as sample size through multi-stage sampling method.

Sampling method type of this study has been multi-stage cluster method. Statistical sample were selected from education regions of Tehran City then test group (including 20 members) and control group (including 20 members) were randomly selected from students who were studying mathematics and physics in pre-university schools.

Descriptive statistics including frequency table, mean and standard deviation has been used to data analyzing and Kolmogorov-Smirnov test of inferential statistic used to determine normality of data distribution. Analysis of Covariance has been applied to test hypotheses through SPSS Software because of normal distribution of data.

Data Collection Tool

General Health Questionnaire

This questionnaire has been created by Goldenberg (1979) to separate people with mental disorders from patients referred to general medical centers.

The main form of this questionnaire includes 60 items. There are some shorter GHQs including 12, 28 and 30 items considering conditions. The adjusted form of 28 items has been created to increase variance based on the factor analysis of complete form of 60-items GHQ. According to the obtained results of several studies conducted by Benjamin et al., (1982), there is a strong correlation between obtained results from 28 and 60-items General Health Questionnaire and diagnosis of psychological disorders (Taghavi, 2001).

The responses of participants are determined through a four-scale range of much less than usual, less than usual, as usual and more than usual in which, low scales indicate health (well-being) and high scales indicate lack of health in persons.

GHQ 28 includes four secondary scales as follows:

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### Training Program of Promoting Health Plan has been Taught Trough 12 Two-Hour Sessions

<table>
<thead>
<tr>
<th>Sessions</th>
<th>Educational Purpose and Content</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Session 1</td>
<td>Introduction, plan purposes, examples of high-risk behaviors in risky situations, health definition, mental health, life quality, purposes of health promoting school plan, necessary learning of vital skills to deal with risky situations and high-risk behaviors of adolescences, expressing health promoting school plan, …</td>
<td>Students familiarity with executor and purposes of plan, expressing some examples of common high-risk behaviors of students and …</td>
</tr>
<tr>
<td>Session 2</td>
<td><strong>Essential Message 1.</strong></td>
<td>Awareness of students about the important role of friends in tendency towards high-risk behaviors, risky places and methods to deal with them.</td>
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<tr>
<td></td>
<td>It would be dangerous to be friend with persons who have risky behaviors or being in risky places.</td>
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<tr>
<td>Session 3</td>
<td>Training skill of bravery, relation styles (passive, brave and aggressive), skill of saying no and asking skill was taught.</td>
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<td>Session 4</td>
<td><strong>Essential Message 2.</strong></td>
<td>Students’ familiarity with definition of anger, its types, its physical and mental symptoms.</td>
</tr>
<tr>
<td></td>
<td>Violent behaviors have undesirable effects on the physical, psychological and social health of human. We are able to effectively reduce violence in our world and increase life quality.</td>
<td></td>
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<tr>
<td>Session 5</td>
<td>Training skill to control anger, definition of warning symptoms such as increasing heart rate, blood pressure, numbness in some parts of body etc., situations leading to anger such as being ridiculed or humiliated, being persecuted and harmed intentionally or unintentionally, methods to show anger (passive or aggressive behaviors) or dipping anger including controlling anger, relaxation, changing negative thoughts, problem solvent, changing the environment and showing anger through a peaceful way.</td>
<td>Able students to identify kinds of excitements (positive and negative), identifying types of violence (verbal and non-verbal), physical and mental effects of violence, methods to control anger and …</td>
</tr>
<tr>
<td>Session 6</td>
<td><strong>Essential Message 3.</strong></td>
<td>Familiarity with smoking, consequences of smoking in long-term and short-term, disadvantages of cigarette and tobacco, role of friends and …</td>
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<tr>
<td></td>
<td>Smoking is not a personal issue and we should be aware of smoking consequences for us or people.</td>
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</table>
We are responsible to avoid smoking and help other people to quit smoking.

Session 7
Teaching the skill of critical thinking (criticize, assessment, evaluation, studying and investigation), it means that a person should think carefully about an action before doing in order to assess and evaluate its consequences. Critical thinking skill can prevent from social and mental harms such as delinquency, promiscuity, addiction, suicide etc. In this session, critical thinking was taught.

Ability to put question mark at the end of an action or behavior to do or not to do it, not accept any issue before evaluation or criticize in order to select the best way.

Session 8
Essential Message 4.
We can prevent from hard and fetal diseases such as HIV and Hepatitis through following simple and possible principles.

Familiarity with ways of transmission of HIV, ways of non-transmission of HIV, prevention with specific exercises.

Session 9
Teaching skills to control stress, definition of consistency of person with new situations and conditions, types of stress (positive, negative, common stresses of life, small and catastrophic stresses), effects of stress on body (increase in blood pressure, high blood into the extremities, secretion of 2 hormones through adrenal gland (adrenaline and nor adrenaline), physical effects of stress (ulcers, asthma, eczema, hives, skin cancer etc.), mental effects of stress (depression, anxiety, obsession, addiction etc.), stress sources (body factors, competition, failures and deprivations, beliefs and thoughts, personality etc.).

Creating ability to identify stress sources, accurate ways and methods to deal with stress and reduce it, learn to separate beneficial stress from harmful stress.

Session 10
Essential Message 5.
We should know the application of any substance before use it and we should know the permitted amount of use, use information, beneficial and harmful effects.

Students’ familiarity with chemical substances that are legally banned.

Session 11
Training the effective decision-making skill, important factors in decision-making, problem or situation, logical decision-making methods (stages of recognition, data collection, evaluation, selection and implementation, as well as repeated critical thinking skills were taught)

Decision-making ability about life issues such as major or future job.

Session 12
Familiarity with rule and regulations to recognize them, awareness of legal consequences of our behavior, and awareness of citizenship rights.

Students’ familiarity with rules and regulations and consequences of non-compliance of them.
Training of health promoting school plan can effect on increase in mental health of pre-university students.

<table>
<thead>
<tr>
<th>Change Sources</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Sig Level</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effect of Pretest</td>
<td>7135/08</td>
<td>1</td>
<td>7135/08</td>
<td>8721/07</td>
<td>0/000</td>
<td>0/99</td>
</tr>
<tr>
<td>Group</td>
<td>127/74</td>
<td>1</td>
<td>127/74</td>
<td>156/03</td>
<td>0/000</td>
<td>0/81</td>
</tr>
<tr>
<td>Error</td>
<td>30/27</td>
<td>37</td>
<td>0/82</td>
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<tr>
<td>Total</td>
<td>3638/00</td>
<td>40</td>
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</table>

The covariance analysis indicates that the effect of pretest is significant; It means that implementation of pretest effective in scores of posttest. F-value of relevant covariance analysis to comparison of two groups has been significant at level of 0/01. Hence, training of health promoting school plan can effect on improvement of mental health of pre-university students. The obtained effect size indicates high effectiveness of training of health promoting school plan on improvement of mental health of pre-university students.

**Conclusion**

Hypothesis 1: Training of health promoting school plan can effect on changing attitude towards smoking, addiction, drug abuse and alcohol consumption among pre-university students. The obtained results of this study are coordinated with results obtained from studies conducted by Edward (2004), Botvin and Barker (1984) and Barati (2006).

In discussion and interpretation of hypothesis 1 and with accordance with previous studies, it is stated that the most important reasons in drug abuse among adolescences include curiosity, enjoyment, fun, mental health problems, pain relief, physical illness, family conflicts, drug availability and pressure of friends. The program of training the health promoting plan would enable students to recognize the strong role of friends in tendency towards high-risk behavior, risky places and would teach them how to deal with this factor. In fact, this plan teaches students that when a student tries to use drug, either occasionally or irregularly, his or her willing is not able to prevent from addiction because this person is addicted due to personality development. Hence, this person would deny or lie so that addiction or drug abuse might be more and more because of non-reaction or agreements of surrounding people or environment. As Asadi (2010) stated, it would be essential to warn an addicted person who is ignored by family members or old friend in order to notice harmful effects of addiction and drug abuse. An addicted person is unsuccessful in education due to the high costs of drug and drug abuse would bring disease to that person. There are different consequences for addiction such as high costs, severe problems, legal issues, imprisonment and death. This study has been conducted to change attitudes of students towards addiction and drug abuse through health promoting school plan in order to create a considerable improvement in their attitudes.

Hypothesis 2: training of health promoting school plan can effect on changing attitudes of pre-university students towards smoking.

The obtained results of this study have been coordinated with results obtained from studies conducted by Botvin and Barker (1984) and Garmaroodi (2009). It can be stated in explanation of this hypothesis that: Researcher has presented some points in sessions of this plan that smoking is not a personal issue and we should all be aware about consequences of smoking for us and other people. The sessions of this plan have tried to introduce smoking, long-term and short-term consequences of smoking, disadvantages of cigarette and tobacco and role of friends in order to make students aware of asset of dangerous factors including personal, family, social and environmental that increase possibility of smoking among...
adolescences. Personal reasons include lack of self-confidence, rebellious mentality, reducing contact with others, inadequate information effects of smoking, having a positive attitude towards smoking (especially among girls), having a positive attitude and a sense of indifference towards smoking (especially among boys), tending to show older, lack of ability to deal with peer pressure. Peer groups such as having smoker friends and classmates would encourage students to smoke. Family factors include smoker parents, reducing relationship with parents, parents’ different attitudes and reactions towards children (especially towards girls) and too restrict parents (especially for boys). Social and environmental factors such as availability of cigarette, advertisement of smoking companies, and low price of cigarette for adolescences are the most effective factors. According to the results obtained from studies about adolescences conducted by Rafee et al., (2010) and Epstein et al., (2000), there is a relationship between aggressive, maladaptive, deviant behaviors and use of cigarette, alcohol, marijuana and Heroin. Researcher would remind students to help other people to prevent from addiction so that that the attitude of students has been changed towards smoking.

Hypothesis 3: training of health promoting school plan can effect on changing attitudes of pre-university students towards alcohol consumption.

The obtained results of this study have been coordinated with results obtained from study conducted by Botvin and Barker (1984). According to previous studies, it could be said that alcohol would weaken the central nervous system so that this substance can be classified as tranquilizers. Alcohol is used in medical science while its abuse has created problems in human society. Researcher has warned students about alcohol that although this substance makes calmness and reduces pains but alcohol will impair cognitive performance, speech and moving coordination. Alcohol would reduce self-control and ability to evaluate consequences of behavior; therefore, an alcoholic person might say something or do a risky action but regret at the end. A positive expectation from alcohol effects is the most important factor in alcohol consumption among young people because they want to be more social or lovely. Alcohol would bring happiness in person so that the person will accept his or her behavior. This part of study has warned students to change their attitude towards high-risk behavior of alcohol consumption.

Hypothesis 4: Training of health promoting plan can effectively increase mental health of pre-university students.

Mental health includes four factors of physical symptoms, anxiety signs, social action and depression.

The obtained results of this study are coordinated with results obtained from studies conducted by Harldson et al., (2008), Misha and Yestgard (2006), Phaibul et al., (2005), Davies (2002), Warren & Jones (2007), Megan & Moreno (2009) and Larsman et al., (2011). According to this hypothesis, it is stated that the most important purpose of mental health is to provide, protect and improve mental health of society so that they are not mentally sick while are able to be aware of emotional-cognitive factors in order to overcome life stresses through a better mental balance. Such people would be able to have beneficial daily tasks and enjoy their lives in relation with family members, society and environment. Hence, it would be essential to implement preventive measures in this field for students who are future men and women of society. According to a study done by Brooks et al., (2002), there is a relationship between relevant feelings to depression, stress and increasing smoking level, violence, physical conflicts, unsafe sexual relations and unhealthy eating style. Researcher has tried to create ability in students to identify stress sources, accurate ways and methods to deal with stress and reduce it and to teach them to separate beneficial stress from harmful stress in order to mental health of students. The mentioned purpose has been realized through following actions:

Teaching stress control skills; teaching definition of consistency with new situations and conditions; introducing types of positive, negative, common, small and catastrophic stresses of life and introduction of effects of stress on body such as increase in blood pressure, high blood into the extremities, and secretion of two hormones through adrenal gland (adrenaline and nor adrenaline). Introducing physical effects of stress including ulcers, asthma, eczema, hives, skin cancer etc. Introducing mental effects of stress such as depression, anxiety, obsession, addiction etc. and introducing stress sources including body factors, competition, failures and deprivations, beliefs and thoughts, personality etc.
According to the results of this study, it would be possible to apply training of health promoting school plan in order to change attitudes towards reduction of high-risk behaviors and increase in mental health among youth and adolescences.

REFERENCES