The Effectiveness of Cognitive-Behavioral Trainings on Delinquent Behaviors and Health Promotion among Male Adolescents

*Mahtab Gholami1, Setareh Atefi Karajvandani1
1MA of Family Counseling, Faculty of Psychology and Educational Sciences, Kharazmi University- Tehran, Iran
*Corresponding Author

Abstract: Delinquent behaviors and psychological problems are common problems in adolescence that could be reduced by special training. The current are to investigate the effectiveness of the cognitive-behavioral trainings by group method on delinquent behaviors and health promotion among male adolescents. This was a quasi-experimental pretest posttest study with a control group. For this purpose, 30 adolescents in Tehran were selected and divided into two groups of 15 subjects were included in experimental and control group. After performing pre-test in both groups, experimental group for 8 sessions during the months of cognitive behavioral training and the control group did not receive training. Use the General Health Questioner in order to measure the level of health and Attitude to Delinquent Behaviors Questioner. The used scales had desirable reliability and validity. Finally scores are the result the tests, were analyzed with covariance statistical methods. The results showed that cognitive behavioral training group at the level of error (p<0.0001) is affected to reduce positive attitude to delinquent behaviors and increased to the negative attitude to delinquent behaviors. Other results also showed that the training has a significant impact on improving health in adolescents (p<0.0001). Accordingly, we conclude that are impact the cognitive behavioral training by a group of young people’s attitude to delinquent behaviors and improve their health. The implementation of these courses can prevent social harm and health promotion to be effective in adolescents.

Key words: Cognitive behavioral training, Health promotion, Delinquent behaviors, Attitudes to delinquency

I. Introduction

After childhood, the person enters the stage of adolescence in terms of growth. The importance of this period to the extent that some have called this period rebirth for him, because a lot of changes in various aspects of physical, intellectual and emotional features of a person is caused, leading to the formation of the adolescent characters [1]. Including the problems of adolescence, the prevalence of risk behaviors, attitudes of juvenile to delinquent behaviors, drug abuse and alcohol consumption, which caused extensive damage at the individual level, the social and family [2]. Delinquents are Juveniles who engage in illegal acts. Police arrests and personal reports show that delinquency increases during adolescence, and then decreases in early adolescence. In fact, anti-social behaviors increase in adolescents because of the desire to confirm the peers. Over time, the influence of their peers decrease, moral reasoning improves, and adolescents enter the social conditions such as marriage and job that less leads to breaking the law [3]. Analysis of adolescents and youth crime is not usually easy. In the one hand that crime means violation of the law, adolescents and young delinquent activities are often means the activities that in exact expression, it is not a crime. Antisocial behaviors, subcultures and nonconformity youth delinquency may be considered delinquency, but in fact these actions are not criminal [4]. Economic poverty is the cultural arrearage operating and technological advancement, urbanization, increasing population density, unexpected events such as war and earthquakes, mass media, including press and media, and the weakness of the moral and religious foundations are the social causes of crime[5]. One study showed that anti-social attitude, academic achievement and lack of parental control are the three variables that significantly increase the involvement of youth in delinquent acts with high confidence coefficient [6]. A study by Wan et al., showed that some of the negative emotions such as stress, anxiety, and depression with self-concept could be strong predictor variables to explain delinquent behavior in young people [7]. Researchers suggest many factors as underlie to crime trends that Miller et al have emphasized on the importance of parental influence on risk behaviors among adolescents. The study showed that family involvement has relatively strong negative correlation with crime and economic poverty is considered as predisposing factors [8].
In psychology perspective delinquency placed in the area of conduct disorder. In fourth edition of the book “Diagnosis and Statistical Manual of Mental Disorders” (DSM-TV), conduct disorder is defined as a stable set of behaviors that are formed over time and it’s often character is aggression and violate the rights of others. Conduct disorder accompany with many other disorders including attention deficit _ hyperactivity disorder, depression and learning disorders and psychosocial factors. In addition communicate with several low-level socioeconomic harsh and punitive training methods, family disputes, lack of appropriate parental supervision and lack of social competence [9]. Continuous delinquency in Juvenile follow two growth paths: one by starting conduct problems in childhood and another by beginning of adolescence. Delinquent juvenile that have begun delinquency in childhood and adolescence, committed serious offenses, they associate with deviant peers, and involved in substance abuse, unsafe sex, and dangerous driving and spend time in correctional and education centers [3].

Mental status alters due to extensive changes in terms of hormonal, physical and psychological occurring in the adolescent. Adolescents became more aggressive and withdrawn than the past and their psychological health drop because of widespread concern of these changes [10]. Longitudinal research has shown that adolescents aged between 12 to 14 years are not in a good mental health condition but between ages 15 to 18 they are in the average psychological condition. The other results of this study showed that depression symptoms and conduct problems in adolescence increases, such as being arrested by police, truancy, alcohol consumption, smoking cigarettes and Marijuana [11]. In another study results showed that adolescents’ self-esteem significantly decrease compared to the past, also the self-esteem in adolescents are in the relationship with academic performance, physical activity and gender. In other words, the boys have more self-esteem compared to girls and adolescents with better academic performance and who participate in sports [12]. In a study to assess the mental health problems of precocious puberty in adolescents, the results showed that precocious puberty is associated with depression, psychosomatic symptoms, anxiety, substance abuse and outbreak of delinquent behaviors. The results of this study indicate that precocious puberty is associated with widespread psychological problems [13].

Adolescence characteristic is puberty. Puberty is a process and physical changes and different from adolescence that is a psychological change. The two processes occur simultaneously in favorable conditions but when puberty and adolescence do not occur simultaneously, adolescent must tolerate this imbalance that is an additional stress. A very important point is that many mental health problems in adulthood is a continuation of childhood and adolescence [14]. Nearly 21 percent of adolescents experience the symptoms of psychological disorders according to Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) in one year, in addition the large number of them are at the risk of future injuries and need help due to behavioral problems, emotional or psychological pressure, but they still have not reached a stage that meet the above mentioned criteria [15]. In a study it was shown that health promotion communal approach is one of the effective methods to promote mental health and prevent adolescence injuries [16]. In the most recent study results imply that the association training in cognitive-behavioral approach is effective in adolescents at the treatment of depression [17], anxiety [18] and headaches [19], healthy lifestyle behaviors and health promotion [20], quit smoking [21] and psychological stress disorder after the accident and alcohol [22].

Cognitive behavioral approach like its name focused on beliefs and behavior problems, and shows how these beliefs have played a role in the development of psychological problems and how to sustain these problems during the time and treatment cause the problematic attitudes and beliefs changing [23]. Dattilio believes that the cognitive behavioral therapy combine the principles and cognitive and behavioral techniques with short-term approach. All of cognitive behavioral approaches are based on regular training and all of them emphasize on the role of assignment, assign responsibility to the authorities to take an active role in sessions and out of it and use a variety of cognitive and behavioral strategies for creating behavior change [24]. Nowadays the mere use of the principles of learning theory in treatment gives their place to accept the issue that cognitive factors, such as attitudes, thoughts and expectations also affect on behaviors. Behaviorists have found the position of recognition to face to face engagement in recent years. The particular important point is the enthusiasm of the therapists to work on the imagination, mental activity and thinking patterns of individuals and these are the key factors in appearance, continuity and bad behavior change [25].

Adolescence is very important and critical stages of growth and evolution of humans. This era have referred as an age of crisis, storm, stress, rebirth and identification. This fact is accepted by all people that the experience of adolescence is a stage that on the one hand, faced with physical and cognitive changes with the passage of childhood to adulthood and on the other hand, faced with issues such as development, identity and friendship to acceptance and independence of social roles in relation to peers and decision-making on the future and job. Adolescence is the time of awareness and decision-making and acceptance of cultural and spiritual values and the period of conflicts, contradictions and dream. So adolescence is one of the most important and crucial period in the development of human personality. Sometimes a teenager may have problems or concerns in this era, and require research to prevent them. Additionally Criminologists believe that someone who is convicted for the first time, the more someone is younger the more he commits crime for a long period of time and other offenses
to be incurred. In other words, the possibility of consolidation of crime rises and the interval between his first offenses with subsequent offenses will be shorter [26]. Prevention of crime divided into two categories: retributive and non-retributive. Among the various prevention as the police new issues, such as community policing also focused on it, social protection is more recent term compare to the other forms of prevention, social institutions such as family, school, media, education, and etc. try to prevent the victimization of people, especially young people and reduce crime opportunities [27]. The present study aims to determine the effectiveness of cognitive behavioral training in a gregarious way on attitudes about delinquent behaviors and health promotion on the sample of boy adolescents in Tehran.

II. Method

This study was designed as a classic quasi-experimental project in cooperate with the control group. In order to implement of the study with available method 30 teenage boys in Tehran were selected and after pre-test and checking the average consistency of scores of every scale, they were included in the experimental and control groups of fifteen. Test group was trained over a period of 40 days in 8 sessions of 90 minutes by two senior experts of cognitive behavioral family counseling and clinical psychology, respectively. The control group received no training. After the sessions two groups were tested (post-test) again. Including conditions of entry to the study were: age range 15 to 18 years, informed consent of the individual and family to participate in this study, having at least reading and writing knowledge, ones ‘commitment in order not to leave during the process of training sessions.

Attitudes questionnaire to delinquent behaviors (2009): These questionnaires were provided to assess attitudes toward delinquent behaviors for adolescents between 15 to 18 years that have 28 months by Vahid Fazli in 2009 and graded based on the 4 factors Likert. To ensure the validity of the Questionnaire, its statement was presented for the experts on the subject (professor of psychology, criminology, and sociology) and its validity was confirmed. The device used to measure the positive and negative attitudes toward the criminal behavior. During a study, the questions are tested on 200 students of public schools in Tehran and their internal consistency were calculated by Cronbach's alpha method that was 77 percent for negative attitudes and 71 percent for positive attitudes toward the delinquent behaviors [28]. In another study, the internal consistency of the test was calculated and was 83 percent for negative attitudes and 86 percent for positive attitudes to delinquent behaviors [29].

General Health Questionnaire: this scale was established by Goldberg (1972) that the questions cover four areas of health, social, anxiety disorders and depression. This questionnaire has 28 questions and is based on a four-grade Likert scale and was scored from totally agree 4 to totally opposed 0, the lower each individual score in this test is calculated to be, the higher person public health level would be. Minimum score in this test is zero and the maximum is 84. The test designers reported the concurrent validity of the questionnaire is 87 percent and its composition ratio is between 73 to 94 percent. The reliability of the questionnaire was calculated 72 percent using retest [30]. Psychometric properties of this test on Iranian samples are approved. In a study on high school students the validity of this analysis has been approved using factor analysis method and its internal consistency was calculated by Cronbach’s alpha method [31].

The content of the training sessions showed in Table 1 and have been developed based on cognitive behavioral perspective and the content of the course has been used in the previous research. In order to re-examine the validity of training course, the experts and researchers views of this field were used, and the content was taught.

Table 1: The content of the training course in cognitive behavioral approach

<table>
<thead>
<tr>
<th>Sessions</th>
<th>Training Course Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>Introduction: introduce people, explain the goals of the course and getting feedback from the participants to promote the training course.</td>
</tr>
<tr>
<td>Second</td>
<td>Coping strategies training against stress: stress management role in health promotion, recognize stressful situations, introduction of dysfunctional coping strategies (emotional and avoidance), introducing effective coping strategies focused on the problem, the importance of consulting with others in solving the problems, the role of prayer and social support from parents and adults in the management of stress.</td>
</tr>
<tr>
<td>Third</td>
<td>Teaching problem-solving skills: recognizing the problem, examining the solutions, selecting proper solution, action and evaluation methods of problem solving.</td>
</tr>
<tr>
<td>Fourth</td>
<td>Health promotion education: the role of proper nutrition in health maintaining, the role of exercise in health maintaining, education, mental meditation and relaxation.</td>
</tr>
<tr>
<td>Fifth</td>
<td>Recognition of delinquent behavior and its damage: the introduction of delinquent behavior, crimes of delinquent behavior, the role of prevention in protecting public health, assessing criminal damages at the individual, family and community.</td>
</tr>
<tr>
<td>Sixth</td>
<td>Saying no skills training: definition of refusal skills and group discussion about the experiences in this field and implementation of techniques in order to learn the correct way to say no.</td>
</tr>
<tr>
<td>Seventh</td>
<td>Assertiveness skills training: conceptual definition of assertiveness skills and group discussion about the experiences in this field and implementation of techniques in order to learn the correct way of assertiveness skills.</td>
</tr>
<tr>
<td>Eighth</td>
<td>Results and conclusions: conclusion of the whole training course and reviewing participant’s ideas about what they learned in the group sessions, pilot techniques implementation in assertiveness and saying no skills and identifying sufficient coping strategies from the insufficient one.</td>
</tr>
</tbody>
</table>
In order to analyses data software SPSS-22 is used and results were reported in the form of descriptive and inferential statistics. In order to normalize the data for using parametric test Kolmogorov - Smirnov single sample was used. In order to compare the averages of pre-test and post-test of experimental and control groups T-test was used and finally to compare the significant differences in the experimental group than the control group ANCOVA was used.

### III. Results

The experimental group age domain is 17.23±1.25 and age domain of control group is 17.74±1.65, respectively. All of the control and experimental group participants were students and were studying in high school education. Maximum age of participants was 18 and the minimum age was 15. To verify the data normality the Kolmogorov - Smirnov single sample test was used, the results showed that research variables are not meaningful at the significant level of P<0.05. Thus the score distribution of the research variable is normal and can implement parametric tests. Levine test results in Table 2 also show that study groups are comparable with each other.

#### Table 2: The results of Levin test to evaluate the equality of the variances of the two groups

<table>
<thead>
<tr>
<th>Variables</th>
<th>F</th>
<th>df1</th>
<th>df2</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive attitude to delinquency</td>
<td>2.913</td>
<td>1</td>
<td>28</td>
<td>0.099</td>
</tr>
<tr>
<td>Negative attitude to delinquency</td>
<td>0.366</td>
<td>1</td>
<td>28</td>
<td>0.336</td>
</tr>
<tr>
<td>General health</td>
<td>0.904</td>
<td>1</td>
<td>28</td>
<td>0.350</td>
</tr>
</tbody>
</table>

#### Table 3: Statistical Properties for Variables in the Pretest on the Studied Groups

<table>
<thead>
<tr>
<th>Variables</th>
<th>Groups</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
<th>D.f</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative attitude to delinquency</td>
<td>Control</td>
<td>27.0667</td>
<td>5.3380</td>
<td>-0.716</td>
<td>14</td>
<td>0.486</td>
</tr>
<tr>
<td>Positive attitude to delinquency</td>
<td>Test</td>
<td>27.8667</td>
<td>6.20906</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General health</td>
<td>Control</td>
<td>25.5333</td>
<td>4.32380</td>
<td>0.442</td>
<td>14</td>
<td>0.665</td>
</tr>
<tr>
<td>Test</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Results in Table 3 show that there are no significant differences between experimental and control group pre-test scores in positive and negative attitude variables to delinquent behaviors and public health level and both groups are homogeneous in average and if the changes were seen in average of variables in the experimental group compared to the control group, it can attribute the changes to the independent variable (training course).

#### Table 4: Statistical Properties for Variables in the Pretest, Posttest on the Studied Groups

<table>
<thead>
<tr>
<th>Variables</th>
<th>Groups</th>
<th>Number</th>
<th>Pre-test, Mean ± SD</th>
<th>Post-test, Mean ± SD</th>
<th>t</th>
<th>D.f</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative attitude to delinquency</td>
<td>Control</td>
<td>15</td>
<td>27.06 ± 5.33</td>
<td>27.60 ± 5.24</td>
<td>-0.745</td>
<td>14</td>
<td>0.469</td>
</tr>
<tr>
<td>Positive attitude to delinquency</td>
<td>Test</td>
<td>15</td>
<td>27.86 ± 6.20</td>
<td>31.53 ± 4.56</td>
<td>-5.75</td>
<td>14</td>
<td>0.000</td>
</tr>
<tr>
<td>General health</td>
<td>Control</td>
<td>15</td>
<td>25.53 ± 4.32</td>
<td>24.86 ± 3.58</td>
<td>0.856</td>
<td>14</td>
<td>0.406</td>
</tr>
<tr>
<td>Test</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Dependent T-test results between the experimental and control groups are reported in Table 4 in order to evaluate the averages comparison. The results show that there are significant differences in the average of the experimental groups toward pre-test and post-test in the positive and negative attitude variables to delinquency and health level. But there are no significant difference between averages of control group in the pre-test and post-test. Dependent T-test results showed that the study groups can compare with each other. Accordingly, covariance analysis is used to evaluate the effectiveness of cognitive-behavioral approach on delinquency attitude and development of health level.

#### Table 5: The results of multivariate covariance analysis to examine the effectiveness of the trainings on variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Square</th>
<th>DF</th>
<th>Mean square</th>
<th>F</th>
<th>P</th>
<th>Eta-squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive attitude to delinquency</td>
<td>82.593</td>
<td>1</td>
<td>82.593</td>
<td>16.151</td>
<td>0.0001</td>
<td>0.374</td>
</tr>
<tr>
<td>Negative attitude to delinquency</td>
<td>264.021</td>
<td>1</td>
<td>264.021</td>
<td>21.500</td>
<td>0.0001</td>
<td>0.433</td>
</tr>
<tr>
<td>General health</td>
<td>1005.024</td>
<td>1</td>
<td>1005.024</td>
<td>134.650</td>
<td>0.0001</td>
<td>0.833</td>
</tr>
</tbody>
</table>

The results of analysis of covariance showed that there is a significant difference between experimental and control groups on positive and negative attitudes scales to delinquency and health level. Accordingly, due to the significant difference between the averages of the study variables in the experimental group compared to the control group in table 4 and the significant difference of ANCOVA in Table 5, it can be concluded that the
IV. Discussion and conclusion

The present research was applied to a sample of boy adolescents in Tehran with the purpose of effectiveness of cognitive-behavioral training on the attitudes to delinquent behaviors and health promotion. The results indicate that cognitive-behavioral group training significantly affect the attitude to crime and reduce adolescence’s negative attitude and increase their positive attitude toward delinquent behaviors. In previous research, the effectiveness of cognitive behavioral with group method in adolescents affected on a sample of delinquent behavior such as smoking [21], prevention of alcohol [22] and Prevention of Drug abuse [32, 33, 34]. In a three-year longitudinal study that was implemented on 4466 students from New York of America on the effectiveness of group cognitive behavioral approach for prevention of drug abuse, the results indicate that the training has had significant effects on the prevention of smoking, excessive use of alcohol, marijuana [32].

In a study to investigate the effects of cognitive behavioral therapy training combined program with positivism approach to prevent violence in adolescents in Tehran, the results showed that the cognitive behavioral therapy training combined program with positivism approach has been effective to reduce aggression in adolescents and anger management skills [35]. In another study that was conducted with the purpose of assessing the effectiveness of concentrated group therapy on the expression of aggression reduction and improve the academic achievement of high school students, results showed a significant difference in the scores of the three groups in terms of academic achievement and aggression reduction; In other words aggression decreased in the experimental group and their academic performance improve significantly [36]. Shakibaei et al, (2002), in a study on orphan adolescents living in Social Welfare Bureau, examine the impact of cognitive-behavioral therapy in the reduction of anger, and concluded that cognitive behavioral group therapy reduces passive aggression and more specifically, reduces tool aggression [37].

Other results of this study showed that cognitive behavioral group training has affected on the health promotion. In previous research, the cognitive behavioral group training has been effective on adolescents’ health promotion [20], depression treatment [17], anxiety [18], headaches [19] and psychological stress disorder after accident [22]. In a study to determine the effectiveness of group cognitive behavioral methods in a group of adolescents with the aim of promoting self-esteem and mental health in adolescents, the results showed that cognitive behavioral training is one of the most effective methods of health promotion and the post-test scores showed significant differences between experimental and control groups [38]. In another study it was shown that cognitive behavior therapy is one of the treatments of adolescents’ depression and an effective way for health promotion [39].

Clarifying the results in the theoretical framework of cognitive behavioral perspective can be explained that in this view therapy is a dynamic process of learning and cognitive behavioral psychotherapy is a therapy method that is based on the behavioral and cognitive perspective. The undesirable human behavior and psychological problems stemming from inadequate and wrong learning, and the emphasis takes place on behavior modification and its change, but the human has thought and before reaction he analyzes them toward the various stimuli that receives, processes the data, evaluate them and then provide the treatment. If the individual assessment of these events is logical, its following sense is a good feeling. But if the primary and secondary assessment is not logical and choose a negative attitude, its outcome will be feelings of sadness, anxiety or other emotional issues. Moreover, in this view, the absence of constructive behavioral skills and learning patterns in the formation of false mental and physical injuries is considered and define the damage as a combination of inefficient cognitions and behaviors. Accordingly, by the implementation of this training, positive attitudes and behaviors are formed and cause health promotion [40].

The implementation of a treatment method and the lack of comparison of dependent variables with a few treatment methods, are the limitations of present study. Accordingly, it is necessary to consider treatments’ comparison in the future studies. Other limitations of this study include lack of follow-up tests and it is necessary to be considered in the future studies. Focused on the boys’ community and lack of comparing the results with girls’ community is the other limitation of this research. Due to the present study limitations, the generalization of the results should be done cautiously. In the practical area the implementation of this kind of research is recommended to prevent social harm and increase health promotion in adolescents.

Accordingly, we conclude that to prevent the social harm and improve health should notice to psychological factors such as inner feelings, personality, attitudes, beliefs, perceptions, values and individual behaviors. Thus, it is assumed that the methods’ design and programs for development of personal and social features can help teens to eliminate the risks that increase his tendency to delinquent behavior, social problems and cause health disorder. In this respect, education programs such as cognitive behavioral group training programs can play an important role in consolidating and strengthening of preventive interventions against social problems and delinquent behaviors and improve health in adolescents.
V. References


AJIRHASS 15-602; © 2015, AJIRHASS All Rights Reserved Page 261