

Evaluation of Educational Effectiveness in Prevention of Teens' Tendency towards Drug Abuse

Robab Rahmati

Ph. D Student of Educational Sciences, State University of Sadr al-Din Eini (Pedagogy), Tajikistan

ABSTRACT

Today, drug use age decrease has been stated as one of main global problem. the involved countries came to this conclusion that one of effective actions in controlling it, paying attention to prevention issue especially prevention in adolescence period . This paper aims to assess the educational effectiveness in prevention of teenagers' tendency towards drug abuse in teenagers. It is a type of experimental (pre-test and post-test with control group). The statistical population consists of all of studying at first grade of high school in Melard city in academic years 2010-2011. 380 students (190 girls and 190 boys) were selected through multi –stage cluster sampling and randomly located into two control and experimental groups. The experimental group was trained by counselors and police officers. Both groups were tested before and after the training with “attitude measurement of students towards drugs” tool and resulted data were analyzed through descriptive statistic indexes and two-way variance analysis. The analyses indicate that difference in tendency towards drug abuse in students of experiment and control group totally and in cognitive, behavioral and general sub-scales in trust level of 0.01 was meaningful , though in emotional attitude sub-scale it was insignificant. The results show that prevention training was effective in general attitude and cognitive, behavioral and general micro scales of students towards drug abuse and lead to increase of negative attitude of student against drug abuse.

Key words: prevention, training, teenagers, drugs.

INTRODUCTION

In modern time, one of the most important and fundamental problems in many countries is drug abuse. The problem that has involved many countries and its negative consequences is rapidly growing. Today, excessive use of drugs has been changed into a social-psychological and medical problem that in spite of differences in form and reasons, many negative effects and damages to socio-economic, cultural and political body.

In recent decades, the increasing amount of drug use prevalence within the state in general and among teens and youths in specific [1]. The National Institute Against Drug Abuse in America based on a comprehensive long time study on drug abuse announced that in many cases the drug use age is between 13-17 years old[2]. This and other results indicate that the onset age drug use has been significantly decreased and many young teens are involved in drug use.

Also, United Nations' findings indicate that in 1989, 49 per cent of murders, 68 per cent of conflicts led to murder, 50 per cent of mortals caused by car crashes, 52 per cent of sexual harassments, 20-35 per cent of suicides, 62 per cent of conflicts, 50 per cent of spousal violence and 38 per cent of child abuses caused by drug use. Therefore, due to reach functional approaches, this paper aims to evaluate the effectiveness of training in prevention of drug abuse tendency in teens.

Theoretical framework:

The existing results have caused different countries to concern more the ominous problem of addiction and to operate more practical in three domains:

1. Attempts for stopping production and presentation of drugs
2. Attempts to prevent drug use
3. Medical and rehabilitation actions for addicts.

Islamic Republic of Iran in accordance with its strategic condition and neighborhood of Afghanistan and Pakistan as the two big drug producers and also locating on the transit road of drugs from these countries to other parts of the world , experiences a critical condition in relation to drug abuse. The strategic situation of Iran caused a rapid growth in domestic market of drug use and almost all of social classes especially teens and youths face with this serious problem.

Serious and increasing impact of drug use and necessity to dealing with them has been such vital and undeniable that has led the authorities in addition to physical and medical programs consider training as the most significant prevention key in drug abuse. Prevention is defined as “a series of cultural, educacional, activities and interferences, notification, informing, counseling, development and reinforcing of alternative activities or any other activity hinder drug use behavior.” [4]

Theorists and scholars in relation to drug abuse prevention have stated different approaches and theories divided into 5 general strategies as follows:

Different other approaches have been proposed as the sub-division of mentioned approaches.

To mention some, the school-oriented approaches [6], primary level prevention through educational courses [7], D.A.R.E [8], and alternative approach [9] that all focus on education. The fundamental principle in these approaches is that teens drug abuse problem derived from lack of principal skills and information. Thus, schools by providing necessary trainings can save teens against drug use.

In other approaches like family reinforcement and focused comprehensive interference on family, school and peers emphasize on family role in drug prevention of teens. In this approach, it is believed that by teaching family skills to parents, increase of their management abilities, decrease of family disputes and increase of communication skills the tendency of teens towards drug use can be reduced [2].

Additionally, the social development [9], affective education [6], enhancement of abilities- integrated social influence approach [9], social influence [10] and capability reinforcement approach [6] have emphasized on people's social growth and believe that teens through personal and social skills development it is possible to come up with the tendency towards drug use. In these approaches special attention has been paid to interpersonal skills development, increasing knowledge about social pressure and facing with peer pressures.

Also, mass media approach stresses the mass media power on preventing teens and youth addiction. In this approach, it is supposed that by educating children and teens help them to from among huge volume of messages and education, choose the best of best [11].

In local prevention approach specified for minorities, it is assumed that different reasons control drug use in different groups. Thus, various prevention interference has to be planned and performed [6].

Some approaches such as information [9], knowledge and resistance training to students [12], education of life skills [9], all are planned based on precise and information due to prevent the tendency towards drug use. By educating different skills like personal, verbal and non-verbal, and social skills and providing sufficient information about prevalence, causes, side effects, and consequences of drug use may help the teen to appropriately face with the addiction.

4. Background:

Salehi [13] showed that education and colour poster method, and giving formal speeches highly influence the students' change of attitude towards drug use. The Supreme Council for Youths [14] also indicated that education and information is one of effective methods in prevention of social problems including addiction.

Pour Chenari et al [15] and Education organization of Khorasan province [16] in a study found that students' attitude towards drug abuse like (cognitively, emotionally and behavioural) strongly relates to addiction after and before life skills training. Ghaderi Dehkordi [17] states that education of drug side effects is influential on their attitude change and knowledge and it definitely modify youths' attitude towards drugs.

Botvin et al [6] showed that education of skills leads to norm expectations decreases for smoking and alcohol. It also was cleared that control group self-confidence was higher than experimental group.

Griffin et al [18], Botvin et al [19], Mackinnon et al [20] confirmed that after prevention skills training less smoking, alcohol and inhalant materials were reported. This was useful for poor teens more in danger of drug use as well.

Brook [21], Aieken and Dreger [22] findings indicated that the person's positive attitude towards smoking, alcohol and other drugs is significantly related to their use. Bonnie et al [23] believe that the prevention program at school may decrease dangerous factors and affect the factors associated to drug use by teens and school environment. Simons and Carvey [24] the type of copying strategies used by people can be considered as a drug use predictor in the future. In Zollinger et al studies [25] smoking rate in educated students principally was lower than other and could easily refuse smoking.

Dennis et al [26] concluded that alcohol, smoking, and tobacco use relates negatively to high emotional intelligence. In Cheryl et al [27] study no significant difference between experimental and control group in D.A.R.E. program was observed. Though, a significant difference observed between boys' control and experimental groups regarding tobacco and use in D. A. R. E plus program and no such difference among girls.

Regarding previous studies in drugs use prevention show that in programs planned for prevention, schools

specifically holds a position and teens more than other groups were investigated. The paradoxes exist in obtained results, i.e.; the crisis of drugs use decreased age, motivated the investigator to examine the possibility of global approaches in relation to addiction and see if education can prevent teens' tendency towards drugs use.

5. METHOD

It is an experimental (pre-test, post-test with control group) type of study. The control and experimental groups were selected from first grade high school students that are homogenous. Both groups were measured twice. First measurement performed through pre- test and the second by post-test. The subjects were divided into two groups by random measurement. The dependent variable was assessed at the same time and under same conditions. The experimental group faced with dependent. The control group experienced no variable.

2.4. Statistical population:

The statistical population consists of all of first grade high school students in Melard city , academic year 1389-1390 and about 6008 people (N=6008).

3-4: sample size and sampling method:

To select the appropriate subjects, the multiple –stage cluster sampling used. The statistical sample size consists of 380 people (190 girls, 190 boys) . The sample size estimation determined through Florida university sample size measurement. The trust level was 0.95.

$$n = \frac{N}{1 + N(\alpha)^2} = \frac{6008}{1 + 6008(0/05)^2} = 375$$

4.4: administration:

After subject selected, the Drugs Attitude Measurement questionnaire distributed among experiment and control groups. Then, the prepared materials were educated to subjects in experimental group in 8 sessions. In this period, the drugs police introduced different types of drugs and provided information about types of drugs, causes, and rules. the happy life and sense of humor skills (self-knowledge and self-confidence increase) , effective choices and decision making skills, effective communication (come u with stress) ,and problem solving were taught . The group sessions were in form of workshops followed by real samples of drugs, documentaries, slides, animations, posters and brochures.

In the end of training, two separate groups were measured by questionnaire. It is a program designed for first grade high school students since it is a middle period between primary and secondary teen age and the transient stage from secondary to high school level. In this period, teens experience special mental, social and cognitive characteristics that threat them seriously.

5-4: measurement tools:

To measure students' attitudes towards drugs, the standardized questionnaire "students' attitude towards drugs" used. It contains 34 items. The reliability coefficient obtained 80 % through retest technique and with internal correlation coefficient (Cronbach's Alpha) calculated as 0.803.

This questionnaire consists of four micro sub-scales and measures people's in aspects including cognitive, emotional, behavioral and general attitude. To evaluate people's attitude against drugs this questionnaire also presents a comprehensive attitude score resulted from sum scores of cognitive, emotional, behavioral and general aspects. It contains 34 three option items. It's scored based on Likert's scale.

1-5: data description:

The descriptive indexes (e.g.; mean and standard deviation) of the questionnaire were measured in both groups (experiment and control) . The results are shown in Table 4-2.

Table 4-2:
Descriptive indexes for students' attitudes towards drugs questionnaire and its sub-scales based on group and sex

Standard Deviation	mean	frequency	Standard Deviation	mean	frequency	variable	sex
1.51	5.52	95	1.52	4.87	95	cognitive	boys
1.77	13.25	95	2.36	13.24	95	emotional	
2.18	8.76	95	2.29	7.80	95	behavioral	
2.10	10.45	95	1.82	10.09	95		
3.81	37.98	95	4.11	36.01	95	General attitude	
1.65	5.47	95	1.36	4.99	95	cognitive	girls
2.03	13.32	95	2.52	12.94	95	emotional	
2.22	8.16	95	2.32	7.75	95	behavioral	
1.74	10.13	95	1.89	9.38	95	general	
3.93	37.07	95	3.80	35.05	95	General attitude	
1.58	5.49	190	1.44	4.93	190	cognitive	total
1.90	13.28	190	2.44	13.09	190	emotional	
2.22	8.46	190	2.30	7.77	190	behavioral	
1.93	10.29	190	1.88	9.74	190	general	
3.89	37.53	190	3.98	35.53	190		

The results of Table 4-2 show that general attitude towards drugs mean score in experimental group is lower than control group. The mean score of cognitive, emotional, behavioral and general sub-scales in experimental group is slightly lower than control group. The mean scores difference in both experimental and control group is shown in Diagram 4-1.

2-5: data analysis:

Due to measure the significance of difference between boys' and girls' mean scores in either experimental (participated in the prevention program) or control group (received no training) concerning two independent variables (group and sex) on dependent variable scores the two –way analysis of variance was applied.

In following five research hypotheses are tested:

Hypothesis 1: general attitude to the addiction is principally different in both boy and girl teens of experimental and control group

	F	(SS)	Degree of freedom	(SS) Sum of	Source of change
0.001	24.67	378.01	1	378.01	Group factor
0.021	5.387	82.441	1	82.441	Sex factor
0.948	0.01	0.07	1	0.07	Sex/group interaction
		15.327	376	5762.17	
			379	6222.69	Total error

Table 1: two-way analysis of variance in general attitude towards addiction in young boys and girls of experimental and control group

As can be seen in Table 1, since calculated F in relation to teens classification in two experimental and control group equals ($F_{(1,376)}=67.24$, $P=0.001$) is meaningful in level less than 0.01 . Therefore, the classification factor impact on general attitude to the addiction is significant. That is attitude towards addiction is considerably different in either experimental or control group.

Moreover, the impact of teens sex ($F_{(1,376)}=5.387$, $P=0.021$) is significant in level less than 0.05. so, as previous factor, sex plays an important role in attitude towards addiction and makes a permanent difference.

However, the interactional impact of group on sex against addiction attitude ($F(1,376)=0.018$, $P=0.948$) is insignificant in 0.05 level.

Regarding significance of teens classification factor, comparison of attitude means in both experimental and control groups indicates that the attitude mean in experimental group ($M=35.53$, $SD=3.98$) is lower than the mean in control group ($M=37.53$, $SD=3.89$). as a result, this educational prevention program has decreased experimental group teens' tendency to addiction in comparison with control group.

Regarding teens' sex, addition attitude mean in both groups indicates that addiction attitude for girls ($M=36.06$, $SD=3.99$) is lesser than boys' mean ($M=36.99$, $SD=4.06$).

Hypothesis 2: cognitive aspect of addiction attitude is totally different among boys and girls of both groups.

p.value	F	(SS)	Degree of freedom	(SS)	Source of change
0.001	13.13	30.13	1.00	30.13	Group factor
0.81	0.06	0.13	1.00	0.13	Sex factor
0.61	0.26	0.59	1.00	0.59	Interaction of group/sex
		2.29	376.00	862.88	error
			379.00	893.73	total

Table 2: two-way analysis of variance for cognitive aspect of attitude towards addiction in teen boys and girls of experimental and control group

As Table 2 shows, since calculated F in relation to classification factor in both groups ($F(1,376)=13.13$, $P=0.001$) is significant in lower 0.01, therefore, the classification factor influences cognitive aspect. That is the cognitive aspect of attitude principally differs in both groups. However, the teens' sex ($F(1,367)=0.06$, $P=0.81$) and the interactional impact of group in sex ($F(1,367)=0.26$, $P=0.61$) don't largely affect cognitive aspect in 0.05 level.

Thus, the prevention program has decreased the cognitive aspect of positive attitude in experimental group in comparison with control group.

Hypothesis 3: emotional aspect of attitude varies in teens of both groups.

p.value	F	Mean of sum of squares	Degree of freedom	Sum of squares	Source of changes
0.39	0.75	3.60	1.00	3.60	Group factor
0.59	0.29	1.39	1.00	1.39	Sex factor
0.41	0.67	3.22	1.00	3.22	Interchange of sex -group
		4.79	376.00	1801.52	Error
			379.00	1809.73	Total

Table 3: two-way analysis of variance for emotional aspect of attitude in both group's teens.

Based on Table 3 and calculated F, for classification factor of both group ($F(1,376)=0.75$, $P=0.39$) and the sex factor ($F(1,376)=0.67$, $P=0.41$) is insignificant on emotional aspect of attitude in 0.05 level.

Consequently, the prevention program hasn't changed the emotional aspect of teens' attitude towards addiction.

Hypothesis 4: behavioral aspect of attitude varies in girls and boys either experimental or control group.

p.value	F	Mean of sum of squares	Degree of freedom	Sum of squares	Source of changes
0.003	8.759	44.474	1	44.474	Group factor
0.159	1.992	10.116	1	10.116	Sex factor
0.237	1.401	7.116	1	7.116	Interchange of sex /group
		5.078	376	1909.200	error
			379	1970.905	total

Table 4: two-way analysis of variance for behavioral aspect of attitude in both group's teens.

As Table 4 shows, because of significance of calculated F for both group ($F(1,376)=8.759$, $P=0.003$) in lower

level of 0.01, the classification factor is effective on behavioral aspect of attitude . it means the behavioral aspect fluctuates mainly in experimental and control groups. The impact of the sex ($F(1,376)=1.992$, $P=0.159$)and the interactional effect of group in sex ($F(1,376)=1.40$, $P=0.237$) on behavioral aspect in 0.05 level is trivial , though.

Hence, the program has decreased the behavioral aspect of positive attitude in teens of experimental and control together.

Hypothesis 5: general attitude against the addiction is different in young boys and girls for both group.

p.value	F	Mean of sum of squares	Degree of freedom	Sum of squares	Source of changes
0.001	8.13	29.01	1.00	29.01	Group factor
0.01	7.22	25.79	1.00	25.79	Sex factor
0.32	1.01	3.60	1.00	3.60	Interchange of group/factor
		3.57	376.00	1342.53	error
			379.00	1400.93	total

Table 5: two –way analysis of variance for general attitude against young boys and girls in both group.

It can be observed in Table 5 that according to calculated F, ($F(1,376)=8.13$, $P=0.001$) is meaningful in level less than 0.01. Thus, general attitude is significantly influenced by classification factor. It means, a large difference exists in addiction attitude of experimental and control group. in addition, the teens' sex ($F(1,376)$, $P=0.01$) in low level 0.05 is important. As a result, there exists a meaningful difference between addiction attitude in young boys and girls. However, interactional effect of group in sex on addiction ($F(1, 376)=1.01$, $P= 0.32$) is unimportant in 0.05 level.

Consequently, the prevention program has reduced the teens' positive general attitude against addiction in experimental group in comparison with control group.

In relation to significance of sex factor, the evaluation of addiction attitude means indicates that addiction attitude mean in girls ($M=9.75$, $SD=1.85$) is lower than boys ($M=10.27$, $SD=1.96$).

DISCUSSION AND CONCLUSION

Data analysis for the first hypothesis indicates that means difference in two experimental and control groups are significant in level lowers than 0.01. Thus, the presented educational prevention program to experimental group has been effective and decreased general positive attitude of teens' against drugs use in experimental group in comparison to control group.

Additionally, the evaluation of the teens' sex in their tendency towards the drugs is meaningful in lower than 0.05. It confirms the different impact of the program between the boys and girls. Since the girls in experimental group were more under the influence of the training period than the boys were, their attitude was lower regarding the drug use.

Pourchenari et al [15] , the Educational Office of Khorasan province [16] showed in their findings that a significant difference between students' attitude towards drug and addiction before and after educating life skills .

Salehi's findings [13] showed that the education and use of colour poster, giving speech on changing attitude against drugs use has been prominent. This also is in accordance with the Presidential Supreme Council for Youths [14] that approve the impact of information education in prevention of social problems including addiction. In another study, Qaderi Dehkordi [17] stated in his study that the education of drugs use troubles due to change of attitude and informing students have been effective and lead to some changes in attitude.

Botvin et al [6] findings also confirm that education of skills leads to decrease of normal expectations for smoking, and alcohol use. Griffin et al [18], Botvin et al [19], and McInon et al showed that after education of prevention skills, less details has been reported from smoking, use of alcohol and inhalant matters. Boni et al [23] found that the educational program at schools may decrease likelihood of risky factors and influences the related factors to drugs use by teens and school environment.

But, Siwtch perz findings disagree with present study results. The positive impact of the educational method on alcohol use decreases was significant, no strong effect has been observed on tobacco and cannabis use decreases. In addition, unlike Cheril et al [27] results, there is no important difference among control and experimental group in D.A.R.E program. However, a meaningful difference obtained among boys in experimental and control group for using tobacco and dope in D.A.R.E plus program. Girls experienced no important difference.

To discuss the second hypothesis, statistical analysis support the meaningfulness of means difference in cognitive aspect of attitude towards addiction in level lower than 0.01. therefore, the prevention program had reduced the cognitive aspect of positive attitude in teens classified in experimental group. Indeed, the educational program caused changes in person's thoughts and opinions about the drug use and increase of negative image towards these drugs.

This is in accordance with Pour Chenari et al [15] findings that found a strong difference exist among students'

attitude against the drug use cognitively and the addiction after and before the education of life skills.

Though, the effect of the teens' sex factor on cognitive aspect to the addiction is insignificant in 0.05 level. So, this program has the same influence on the boys as the girls in experimental group.

Data analysis of the third hypothesis indicates that mean difference in both groups is unimportant in emotional aspect for level lower than 0.5. Thus, the prevention program hasn't changed the emotional aspect of positive attitude against addiction in experimental group in comparison to control group. That means the people's emotion about the drug use and addiction hasn't been changed. It might be due to the questionnaire failure in emotional aspect. The proposed questions in emotional aspect were poor in evaluation of emotional changes.

Moreover, the evaluation of the sex factor on emotional aspect is insignificant on the addiction in level 0.05 that shows the education is ineffective on the boys and girls emotions.

These findings as a result contrast with Pour chenari et al [15] findings. They found that emotional aspect affects students' attitude in using drugs and the addiction before and after educating life skills. Also, Dennis et al [26] showed that alcohol use, smoking, and tobacco negatively relate to high emotional intelligence.

The analysis for the fourth hypothesis indicates that mean difference among experimental and control group is important in lower level 0.01. Therefore, the classification factor impact on behavioral aspect is important, i.e.; there is a powerful difference among both groups in relation to behavioral aspect of attitude.

The comparison of the two sexes from the behavioral aspect was insignificant in 0.05 level though.. This means that the education of prevention from addiction equally influenced both boys and girls .these results are in accordance with the following results.

Qorbani [28] states that the education can reduce students' negative attitude. Also, Taremian [29] proposed that appropriate relationship between teens their parents and the peers is a crucial factor for prevention form addiction. Pourchenari et al [15] findings also showed that there is a significant difference between students' attitude towards the drug use before and after life skills training.

The mentioned results disagreed with Qand Foroush Satari [30] that indicated braveness education wasn't considered as an immunizing against stress of teens' attitude change against drug use.

The data analysis for the fifth hypothesis shows that the difference in both group is meaningful for lower than 0.01 level. Consequently, the classification factor is effective on general attitude towards the addiction. That is, there is an important difference between two groups for the addiction attitude. In fact, the comparison of means shows that the addiction attitude mean for the experimental group is lesser than the students for control group. So, the prevention program has decreased the positive general attitude of teens against the addiction in comparison to the control group.

The teens' sex is significant in level lower than 0.05 as well. Therefore, the attitude towards addiction differs significantly among the boys and girls. Their addiction attitude means say that the girls' mean places lower than the boys' and the program has affected and decreased the girls' general attitude more than the boys'.

As a result based on the findings, the education of certain skills and providing information were influential in students' attitude toward the drugs and has decreased their positive attitude for the drugs and addiction. Since the positive attitude has a strong relationship with the drug use, the educational periods or workshops specified for schools can be effective due to prevention of the students' addiction.

On the way of previous studies, the limitation of education period and the statistical sample, and police cooperation to present the real types drugs were among the most crucial obstacles.

For further studies it is recommended to first identify the problematic and risky students . Then the educational period increases and performed for the third grade secondary school.

REFERENCES

- A new approach to addiction prevention,national attempt against drugs for teens. Tehran: the institute for drug .2004.
- Abdollahpour,M,Effectiveness of life skills on change of attitude , high school students, Sirjan, towards drug abuse.Allameh Tababae university, M.A.thesis,2009.
- Ahmadi,H,Gholami Abiz, M.,Evaluation of socio-econmic factors on the addiction. Case study , PirBanan camp, Shiraz. Drug AbuseScientific-research Qaurterly,2nd year,5th issue,pp.85-104,2002.
- Aiekan. W. Dreger. B. Predictorsof drug and alchol abuse amoung adolescences program. 316. 320. (2006)
- Bagheri,M,Bahrami,H.the role of life skills training to students and its effect on drug attitude and students self-esteem. Tehran: the center for research, education and information technology, addiction research quarterly. 1st year, issue 3. 2004.

- Bonnie Ghosh –Pastidar and et. Modifying pro-drug risk factors in adolescent s: Result from project ALERT Healtheducation & behavior. vol 31,316-334. (2004).
- Botvin,G. J. Griffin,K. W. W. Paul,E & Macaulay. A. P. Preventing tobacco and alcohol use among elementary school students through life skills training. Journal of child and adolescent substance. abuse 12. 1-18. (2003).
- Brook. U. Addiction among highschool pupils in bolon and their attitudes to work drugs. Journal of tropical pediatrics. (2002).
- Cheril,S.Addiction to drug in Family. Translated by Pirmoradi Saeed.Tehran, Homam Press, 1999.
- Dehkordi, Ghaderi.Evaluation of prevention program impact by use of attitude and information method for secondary school teens, Shahre Kord,2000.
- Dennis R. Trinidad. and C. Anderson Johnson. Institute for health promotion and disease preventive medicine,1540 Alkozar street. CHP. 210,LosAngeles. CA. USA (2001).
- Education organization of Khorasan. Psychological immunization and prevention from drug abuse among boys and girls students, Mashad,1999.
- Elements of comprehensive national program 2 (prevention and struggle with druge smogling),Tehran,Drug Associoation, 2nd volume,2006.
- Ghand foroush, evaluation of psychological immunization effectiveness on decrease of tendency towards drug, in high school students, Isfahan, 2002.
- Ghorbani, change of attitude and self- presentation methods on lack of tendency towards drug use, volunteer addicts, 2001.
- Golparvar,M,Khayatan,F,Kamkar M.The comparison of common beilfs about symbols, reasons and treatment of the addiction among addicts, unknown addicts institute. Research-psychology magazine. 11th period, issue 3 and 4, 2008,pp.45-68.
- Griffin. K. W. Botvin G. J. Nichols T. R. & Doyle. M. Effectiveness of a universal drug abuse prevention approach for Jouth at risk for substance use inivation preventive medicine 36. 1-7. (2003).
- Mackinnon, David P,et,A multicomunity trail for primaryprevention of adolescent drug buse. Health psychology. vol 10 (3) 164-172. (1991).v 26n2 p31-42. (1996).
- Orlandi, M.,I.,he prevention technology for adults and teens involved with drug use. Translators: Golparvar,M.,Khaalt Bari,J.,Tehran: Dovavin press,2001.
- otvin,J,Gillbert.Prevention from drug abuse among teens, present findings and future directions.translated by elahesh Mirzaee, Tehran: Drug association and center for research studies and education,2006.
- Pourchenari, M.,golzari,M.Effectiveness of life skills education on change of attitude of male students, high school level, Sirjan, against drug abuse, addiction reaersch quarterly, issue 8, 2nd year, 2007.
- S. F and caine, V. A. Impact of the life skills training curriculum on middle school students tobacco use in Marin country Indiana 1997-2000. Journal of school health 73. 338-346. (2003).
- Salehi,M.,the role of different information methods in change of attitudes of students against drug.Khouzestan Education organization plan.
- Siarouchi,J,Forgous,John Mayer. Emotional intelligence in everyday life. Translated by Nourizadeh,A.,Nasiri,H.Isfahan: Neveshteh Press.2003.
- Sloboda,Z.,Prevention from drug abuse.Tracks collaps.translated by : Qasem Naziri, Tehran,the Drug Association, the Center for Research and Education.(1386).
- Supreme council for adults. Education and evaluation of learning in adults for prevention of drug addiction,1998
- Simons,S. Carvey. B. Attitudes toward marijuana use and druge. free experience. Elsevier. 16 (2). (2005).
- Tareman, F., the factors of psychological –social prediction of drug use in teens and reasons for prevention and treatment , (2004)
- Younesi, j.,Mohammadi, M.R.,use of information approach in prevention program of addiction among teens. Behavior magazine. 13th year, issue 16.2007.
- Zollinger,T. W. Saywell. R. M,Muegge,C. M. Wooldridge,J. S. Cummings