

Received: November 29, 2015

Revision received: June 4, 2016

Accepted: June 10, 2016

OnlineFirst: June 25, 2016

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ISSN 2148-7286 • eISSN 2149-1305

<http://addicta.com.tr/en/>

DOI 10.15805/addicta.2016.3.0018 • April 2016 • 3(1) • 77-85

Research Article

Effectiveness of a Multidimensional Prevention Program on Reducing Substance Trends among Young People

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Abstract

Based on a variety of theories, many factors are usually related to the etiology of addiction. Furthermore, the better prevention plans are those how able to reduce the effects of the involved factors at earlier ages. In this regard, the objective of this study was to assess the effectiveness of a multidimensional training program on the reduction of the tendency to drug use. 172 male volunteers between the age of 17 and 20 were studied in two training centers (82 people in the experimental group, and 90 people in the control group). This program included teaching the experimental group about the following: Life skills, the need to keep a healthy body, about drugs, and coping methods for stress. The effectiveness of the program was measured in both pretest and posttest by measuring the amount of positive attitude to drugs. There was not a significant difference between the pretest and posttest scores of the risk taking scale in attitude toward drugs in the control group before and after program ($p < .05$). Moreover, comparing the scores of the subjects in the control group under the same conditions without training showed a non significant difference ($p > .05$). Holding life skill training programs for young people reduces the positive attitude of these people toward drugs, and is generally effective in the prevention of drug addiction.

Keywords

Drugs • Life skills • Prevention

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Currently, substance use disorders and their awkward consequences are one of the most important global health problems. These disorders are in relation with many of the serious medical, psychological, familial, occupational, legal, financial, moral, and spiritual problems. Substance use disorders not only bring about pain and misery for the user, but also impose a great burden of damage to the family and society (Dalley & Marlatt, 2005). There has been great progress in the prevention, etiology, diagnosis, and epidemiology of substance use disorders. At the current time, a multidisciplinary method approach, including biological, psychological, sociological, and spiritual knowledge is used for prevention and treatment of these disorders. Drug abuse is now considered as a chronic and recurrent disorder with oncoming biological, cultural, psychological, sociological, behavioral, and spiritual effects (Brook, Brook, Gordon, Whiteman, & Chen, 1990; Wallace et al., 2003). Prevention as a novel strategy in society's mental health is considered a better option than treatment, and thus the researchers in this study tried to analyze the influential mechanisms in optimal execution of drug abuse prevention plans in society.

On the one hand, based on the existing theories, it seems that the best age for the execution of drug abuse prevention plans is around adolescence and youth (e.g., Kendall & Logan, 1984 as cited in Kodjo & Klein, 2002). On the other hand, regarding the etiology of tendency to drug use among young people, it is mentioned in the existing theories that the young people's tendency toward drug use is somehow correlated with life skills. A number of these theories will be discussed in the following sections.

Based on the Rational Choice Theory (Ajzen & Fishbein, 1977, 1980), the exploratory beginning of drug usage is exclusively defined by youngster's "decision" for starting the related behaviors to search for drugs and use them. This theory is based on two major assumptions: (1) Most human behaviors are under their voluntary control, and these behaviors are predictable according to the person's objectives, or according to what they say. (2) Human beings usually behave rationally, and before doing anything, consider their information about the action and its consequences.

Revising the Rational Choice Theory, Ajzen (1980) proposed the Planned Action Theory. This theory states that individuals' behavior depends on three structures: besides attitudes and norms, there is a third factor known as "perceived behavioral control" that is of great importance (Bandura calls this "self-efficacy" and Rotter calls it "locus of control"). Many studies in this regard revealed that intrapersonal characteristics related to general abilities, such as problem solving and self-efficacy, have major roles in preparing the individual for smoking (Botvin, Baker, & Dusenbury, 1995; Bandura, 1986 as cited in Epstein, Griffin, & Botvin, 2000). High self-efficacy helps the youngster resist peer pressure and control their Behavior. In justifying the drug abuse, the social learning theories emphasize the social and interpersonal factors,

besides emphasizing the cognitive and emotional factors. These theories believe that the youngsters take their beliefs about criminal behaviors from their role models, especially the close friends and parents. The same as cognitive-emotional theories, the social learning theories also assume that the individual's attitude about the drug is the strongest predictor of drug abuse for the youngsters (Petraitis, Flay, & Miller, 1995).

According to the social ecology viewpoint (Kumpfer & Turner, 1991), the most important reason for drug abuse is psychological pressure, especially for youngsters who perceive school as somewhere unpleasant and stressful, who escape from school activities, and who choose deviant peers as a bolt-hole from the psychological pressure. The drug abuse is reinforced in these youngsters. In this view, weak educational performance is the major cause of psychological pressure for youngsters in school. Based on the self-derogation theory (Kaplan & Sadock, 2003; Kaplan, Martin, & Robbins, 1982, 1984), the individual's generalized self-esteem is the major factor in drug abuse and prevention of drug abuse. This theory states that if an individual is repeatedly exposed to negative assessments and others' criticism, their self-esteem will be lower, they will humiliate themselves and feel inefficient. Moreover, those who feel that others have rejected them, and have poor social functioning, show a number of reactions: They have to symbolically rebel against conventional values and norms. Second, they become distant from traditional social patterns; they feel they can reinforce their self-value by conducting unconventional behaviors; they connect with deviant peers who enhance their feeling of worthiness. In the multistep learning model, Simons-Morton et al. (1999) expanded Aker's social learning theory and tried to understand why young people join peer groups that use drugs. Simon's social learning view combines the social learning procedures with a number of personal characteristics like low self-confidence, emotional disturbance (tension, stress, and depressed moods), poor coping skills, poor social skills in interactions, and a value system focused on short-term goals instead of long-term goals. Based on this viewpoint, drug abuse in young people is heightened for the following reasons: Seeing parent's drug abuse; presence of peers who confirm drug abuse; emotional disturbance and pressure; poor coping skills. Based on the previously mentioned issues, executing a skill training plans for decreasing the chance of drug abuse by young people can be effective. As a confirmation of this assertion, Springer et al. (2004) stated that training plans aimed at life skills and effective social factors (peer groups, social pressure, and developing resistance skills) are more effective than other plans (Springer et al., 2004). However, the most important challenge in the field of prevention plans for alcohol, cigarette, and other drug abuse is proving the efficiency of these plans (Botvin, 2000).

Despite previous advances that have been achieved in the field of prevention and treatment of addiction and due to the low efficiency of prevention programs that usually

have examined merely one of the effective factors of addiction. Experts agree that the best prevention programs have multidimensional attitudes toward preventing addiction; in the other words, programs should cover as many influencing factors (such as biological, social, psychological, and spiritual) as possible. Therefore, in the current study, we tried to examine the influence of the effectiveness of a multifaceted pursuit of addiction.

Methods

Sample

172 male volunteers between the age of 17 and 20, from two training centers, were studied (82 people in the experimental group, and 90 people in the control group). There was no difference regarding the age, gender, education, or marital status of the volunteers. A summary of the demographic data is depicted in Table 1.

Table 1
Distribution of Samples While Execution of the Prevention Program (172 people)

-	Variable	Experimental group		Control group	
		Number	Percent	Number	Percent
Marital status	Single	67	85.9	74	88.9
	Married	11	14.1	10	11.9
Educational status	Below Diploma	18	22.5	16	17.8
	Diploma	26	32.5	28	31.1
	Academic education	36	45	44	48.9
Age		Mean: 17.9		Mean: 17.3	

Instruments

Coping Inventory for Stressful Situations (Short Form). A short form was designed of the original questionnaire for coping Inventory for Stressful Situations (Endler & Parker, 1990). The difference between the original questionnaire and the short form was the number of the phrases: The original questionnaire contained 48 phrases and the designed questionnaire contained 21 phrases. The short form evaluated the three major coping styles: problem-focused coping, i.e., control of excitement and step-by-step planning for solving the problem (seven phrases); emotion-focused coping, i.e., focusing on the excitement caused by the problem instead of the problem itself, trying to reduce the excitement instead of solving the problem (seven phrases); and finally avoidant coping strategy, i.e., avoiding facing the problem (seven phrases). Boysan (2012) reported the Alpha subscales as follows: Problem-focused coping, 0.72; emotion-focused coping, 0.77; and avoidant coping: 0.74. Moreover, the reliability of the test-retest method within two weeks was as follows: problem-focused coping, 0.79; emotion-focused coping, 0.75; avoidant coping, 0.66. The results of confirmatory factor analysis by Calsbeek, Mieke, Henegouwen, and

Dekker (2002) confirmed the three-factor structure of the short form questionnaire of coping Inventory for Stressful Situations. It shows the structural validity of this test.

Identifying People in Risk of Addiction Questionnaire. This questionnaire was designed by Anisi (2013). It evaluates the four major factors involved in increasing the probability of drug abuse in individuals. The first factor is depression and feeling of helplessness, the second factor is positive attitude toward drugs abuse, the third factor is stress and fear of others, and finally the fourth factor is high sensation seeking. The reliability and validity of this questionnaire was confirmed for a sample of 300 subjects.

Procedure

By the use of selective sampling, one center was selected from among the eight training centers in Tehran, Iran. The two experimental and control groups were selected by means of cluster sampling (each group consisted of more than 100 subjects). The researchers asked the subjects of both groups whether they are willing to participate in the study. A total number of 182 subjects took part in the study (90 people in control group and 82 people in experimental group). The life skills training classes (including decision making skills, communication, self-consciousness, coping with stressful conditions, and refusal) and drug information sessions were held through for sessions over a period of 4 weeks for the experimental group.

Based on what has been stated in the literature review, the implemented educational programs included various aspects life skills (self-awareness, critical thinking, tolerance toward groups pressures, decision making, saying no to suggestion and negative pressures, coping with stress), and the training necessary to have a healthy body, training features, and a variety of nicotine, opiates, alcohol, marijuana, cocaine and crack, and other drugs, stress reduction techniques (relaxation, time management). By cooperating with the educational center managers, drug accessibility was controlled carefully and parent and trainers were asked to actively participate in the program to implement better prevention program.

Based on previous studies, it can be concluded that the improved coping strategies and reduction of the positive attitude to drugs can play a significant role in reducing the likelihood usage of drugs (ex. Botvin & Griffin, 2004) Therefore, coping skills (problem-focused, emotion-focused, avoidance-focused) and positive attitude to drugs are measured in both groups by the mentioned instruments before and after execution of the plan. The gathered data was analyzed using SPSS-21.

Results

The results of the study revealed that there was a significant difference in the positive attitude toward drugs abuse in the experimental group before and after execution of the plan and, in general, the mean scores in the group decreased. Furthermore, the scores of the three coping styles problem-focused, emotion-focused, and avoidant coping strategy were analyzed before and after execution of the plan for both groups in order to ensure the effectiveness of the multidimensional program. In this regard, the results showed a significant difference in the scores of experimental group, while there was no significant difference seen in the control group. A summary of the achieved descriptive results can be seen in Table 2.

Table 2

The Score of Attitude in Coping Skills during the Execution of the Plan (n-172)

Variable	Group	Level	Mean	Standard deviation	Level	Mean	Standard deviation
Avoidant coping strategies	Experimental	Pretest	19	5.21	posttest	17.0	4.71
	Control	Posttest	20.22	5.45	posttest	20.2	5.26
Emotion-focused coping strategies	Experimental	Pretest	21	6.31	posttest	18	4.86
	Control	Posttest	21.04	6.01	posttest	20.90	6.04
Problem-focused coping strategies	Experimental	Pretest	24	4.87	posttest	27	4.54
	Control	Posttest	23.86	5.38	posttest	23.5	5.24
Attitude toward drugs	Experimental	Pretest	14	11.33	posttest	11	8.20
	Control	Posttest	18.22	12.38	posttest	19.30	12.03

Furthermore, the results of the paired t-test in pretest and posttest for both experimental and control groups are summarized in Table 3.

Table 3

The Results of Paired t-test for Evaluating the Significance of Change in Attitude

Variable	Average difference	Standard deviation	df	Significance level
Risk taking in attitude toward drugs (control group)	-0.49	2.32	80	0.06
Risk taking in attitude toward drugs (experimental group)	4.51	10.44	81	0.01

The results of Table 3 and comparison of the pretest and posttest scores of the risk taking scale in attitude toward drugs show that there is no significant difference between the score of the control group before and after execution of the plan ($p > .05$). Moreover, comparison of the subjects' risk taking score in attitude toward drugs in the experimental group revealed that there is a significant difference between these two scores in the pretest and posttest ($p < .05$).

Conclusion

With regard to the data depicted in Table 3, the results of the present study revealed that the execution of a drug abuse prevention program for adolescents and youngsters

can change their attitudes about drugs. This effectiveness is due to learning life skills and knowledge about drugs. By increasing an individual's knowledge, their attitude about drugs changes, and this can bring about a change in behavior. There has been much research conducted in the last 20 years on the subject of the efficiency of life skill learning plans. These studies have constantly showed that learning life skills had positive behavioral effects on reduction of alcohol drinking, smoking, and drug abuse. The primary studies in the field of life skills learning programs focused on cigarette smoking, and generally included only middle class Caucasian people. These studies were mostly preliminary studies on a small scale that analyzed the short-term effects of this intervention on cigarette smoking and drug abuse. Most of these preliminary studies concluded that the preventive approach is more effective than reduction of cigarette and drug use, and those who took part in these programs smoked cigarettes and drugs less than the control group (e.g., Botvin & Eng, 1980, 1982 as cited in Botvin & Griffin, 2004). The results of this study are also in congruity with the results of Botvin, Eng, and Williams (1980), who conducted a preliminary study on the short-term efficiency of life skills training in preventing the smoking of cigarette and drugs. This study analyzed a sample of 281 students in eighth, ninth, and tenth grades, and came to conclusion that life skill training reduced the number of new smokers up to 75%.

Botvin et al. (1995) conducted a six-year study on 600 students in 56 state schools in New York in order to determine the stability of the prevention of alcohol, cigarette, and other drugs abuse. The students were randomly categorized into experimental and control groups. The students in the experimental group learned life skills in seventh grade, and participated in supplementary sessions in the eighth and ninth grades. The effects of the prevention of cigarette and alcohol abuse were observed after the treatment at the end of twelfth grade. The results of this study confirmed one of the assumptions in notification in prevention model that states one of reasons for drug abuse and tendency to use drugs is lack of awareness or information, or having wrong information.

The life skills training program is composed of three major elements. First is a set of general self-management skills for youngsters and the second element focuses on general social skills. These two elements are designed to improve individual and social capabilities and decrease the incentive of abusing drugs in the face of social factors. The third element is strengthening the resistance skills against drug abuse, to form anti-drug attitudes and norms. As a result, execution of life skill training and giving awareness to youngsters in this study could be effective in shifting their attitudes about using or experiencing drugs.

Previous theories in addiction etiology mentioned the role of weakness in decision making, mood disorders and stress, communication problems, poor resistance skills, and lack of self-confidence (Ajzen & Fishbein, 1977, 1980; Botvin et al., 1995; Bandura,

1986 as cited in Epstein et al., 2000; Kumpfer & Turner, 1991; Kaplan et al., 1982, 1984; Petraitis et al., 1995; Simons-Morton et al., 1999). Life skill training programs usually involve all the above-mentioned factors directly or indirectly, and the life skills training in this study reduced the destructive factors and increased the positive resistance skills for youngsters, and gave them useful information about the destructive effects of drug abuse. Moreover, this study could reduce the positive attitude of the youngsters about drugs.

Suggestions for Future Research

We proposed the performance multidimensional prevention program as a continued program. Future research should be carried out to determination of it efficacy. Given the importance of the involvement of a child's parents and associated professionals in a prevention program, their participation should be encouraged using any method to attract them.

References

- Ajzen, I., & Fishbein, M. (1977). Attitude-behavior relations: A theoretical analysis and review of empirical research. *Psychological Bulletin*, *84*, 888–914.
- Ajzen, I., & Fishbein, M. (1980). *Understanding the attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice-Hall.
- Anisi, J, Bahadori, M. H., & Jahanbakhsh, M. (2013). Developing and validation of Identifying People in Risk of Addiction Questionnaire (I.P.R.A). *International Journal of High Risk Behaviors and Addiction*, *1*(4), 183–91. <http://dx.doi.org/10.5812/ijhrba.8101>
- Botvin, G. J. (2000). Preventing drug abuse in schools: Social and competence enhancement approaches targeting individual-level etiological factors. *Addictive Behavior*, *25*, 887–897.
- Botvin, G. J., Baker, E., & Dusenbury, I. D. (1995). Long-term follow up results of randomized drug abuse prevention trail in white middle class population. *Journal of the American Medical Association*, *273*, 1106–1112
- Brook, J. S., Brook, D. W., Gordon, A. S., Whiteman, M., & Chen, P. (1990). The psychosocial etiology of adolescent drug use: A family interactional approach. *Genetic, Social, and General Psychology Monographs*, *116*, 111–267.
- Botvin, G. J., Eng, A., & Williams, C. L. (1980). Preventing the onset of cigarette smoking through life skills training. *Preventive Medicine*, *9*, 135–143.
- Botvin, G. J., & Griffin, K. W. (2004). Life skills training: Empirical findings and future directions. *The Journal of Primary Prevention*, *25*(2), 211–232.
- Boysan, M. (2012). Validity of the Coping Inventory for Stressful Situations - Short Form (CISS-21) in a non-clinical Turkish sample. *Psychiatry and Neurological Sciences*, *25*, 101–107.
- Calsbeek, H., Mieke, R., Henegouwen, G. P., Dekker, J. (2002). *5 factor structure of the Coping Inventory for Stressful Situation (CISS-21) in adolescence and young adult with chronic digestive disorders*. Retrieved from <http://igitur-archive.library.uu.nl/dissertation/203-1210-094857/e5.pdf>
- Dalley, D. C., & Marlatt, G. A. (2005). Relapse prevention. In J. H. Lowinson, P. Ruiz, R. B. Millman, and J. G. Langrod (Eds.), *Substance abuse: Comprehensive textbook* (4th ed., pp. 772–785). New York, NY: Williams & Wilkins.

- Endler, N. S., & Parker, J. D. A. (1990). Multidimensional assessment of coping: A critical Evaluation. *Journal of Personality and Social Psychology*, 58(5), 844–854.
- Epstein, J. A., Griffin, K. W., & Botvin, G. J. (2000). A model of smoking among inner-city adolescents: The role of personal competence and perceived social benefits of smoking. *Preventive Medicine*, 31, 107–114.
- Kaplan, H. B., Martin, S. S., & Robbins, C. (1982). Application of a general theory of deviant behavior: Self-derogation and adolescent drug use. *Journal of Health and Social Behavior*, 23, 274–294.
- Kaplan, H. B., Martin, S. S., & Robbins, C. (1984). Pathways to adolescent drug use: Self-derogation, peer influence, weakening of social controls, and early substance use. *Journal of health and Social Behavior*, 25, 270–289.
- Kaplan, H., & Sadock, B. J. (2003). *Synopsis of psychiatry* (9th ed.). Baltimore, MD: Williams and Wilkins.
- Kodjo, M. C., & Klein, D. J. (2002). Prevention and risk of adolescent substance abuse: The role of adolescents, families, and communities. *Pediatric Clinics of North America*, 49, 257–268.
- Kumpfer, K. L., & Turner, C. W. (1991). The social ecology model of adolescent substance abuse: Implications for prevention. *International Journal of the Addictions*, 25, 435–463.
- Petraitis, J., Flay, B. R., & Miller, T. Q. (1995). Reviewing theories of adolescent substance abuse: Organizing pieces of the puzzle. *Psychological Bulletin*, 117, 67–86.
- Simons-Morton, B., Haynie, D. L., Crump, A. D., Saylor, K. E., Eitel, P., & Yu, K. (1999). Expectancies and other psychosocial factors associated with alcohol use among early adolescent boys and girls. *Addictive Behaviors*, 24, 229–238.
- Springer, J. F., Sale, E., Hermann, J., Sambrano, S., Kasim, R., & Nestle, M. (2004). Characteristics of effective substance abuse prevention programs for high-risk youth. *The Journal of Primary Prevention*, 25, 158–250.
- Wallace, J. M. Jr, Bachman, J. G., O'Malley, P. M., Schulenberg, J. E., Cooper, S. M., & Johnston, L. D. (2003). Gender and ethnic differences in smoking, drinking and illicit drug use among American 8th, 10th and 12th grade students, 1976–2000. *Addiction*, 98, 225–234.

