

The Effect of Life Skills Training on Reducing the High-Risk Behaviors among High School Students in Kermanshah, North West of Iran

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Abstract

Background

The prevalence of high-risk behaviors in adolescents is one of the most important concerns of the community; this study aimed to determine the effectiveness of life skills training on decreasing high risk behaviors among high school boy students.

Materials and Methods

In a quasi-experimental study, the statistical population included Mullah Sadra boy high school students in the academic year of 2017-2018. In this research, the sampling was done in two stages; first, to identify the individuals with high-risk behavior questionnaire, was used and 30 students who have high-risk behavior and willing to participate were selected and randomly assigned to intervention group (n=15) and control group (n=15). The educational intervention consisted of 12 sessions (each session was 60-120 minutes). The Life Skills questionnaire was completed by two groups before, after and one month after intervention; and data were analyzed using SPSS software version 23.0.

Results

The mean of pre-test, post-test and follow-up scores in the intervention group for variances of substance abuse, violence, insecure sexual behavior and high-risk behaviors were lower than the control group. But the mean score of life skills in the intervention group was higher than the control group. The results of the analysis of variance showed that the post-test difference of the studied groups (intervention and control) in the components of high risk behaviors in the health area, substance abuse and violence was significant ($P < 0.05$), but in insecure sexual behavior ($p = 0.766$) was not significant.

Conclusion

According the results, Educational intervention had a positive impact on reducing of high-risk behaviors in boy high school students.

Key Words: High-Risk Behaviors, Iran, Life Skills, Students.

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1- INTRODUCTION

Adolescence is a transitional period of human physical and mental growth that occurs between childhood and youth. This transition involves the biological (sexual maturity), social and psychological changes (1). In many studies, the adolescence is divided into three periods: early adolescence (12 to 14 years old), middle adolescence (14 to 16 years old), and late adolescence (16 to 19 years old). The end of adolescence and the beginning of adulthood varies depending on the different countries. Countries and cultures may consider the different ages for maturity (in terms of periodicity and legality) in order to deliver the certain tasks in the community. Some of these issues include driving a vehicle, having legal sex, military service, drinking, voting, contracting, and completing the certain educational levels or marriage. Adolescence, unlike the childhood, is usually accompanied with the increased independence by parents or legal supervisor and less control (2).

Rapid physical, social and psychological growth (which, of course, does not all occur simultaneously), can engage adolescents with issues that are specific to them. Some of these issues include: sexual growth and the beginning of sexual activity, the lack of knowledge and skills needed to make the right decision in many cases, a thought pattern that meets the immediate needs as well as the initiation of behaviors that may become the habits of whole life, the habits that occasionally create illnesses and problems for whole life (1, 3). Also, while adolescence is undergoing with major changes, it is still a great way to complete maturity. The neurological studies show that until the early twenties, the growth is not complete and decision making and thinking for future has not yet fully developed. Therefore, as the adolescents enter the adolescent roles and physically seem

young, but they are not yet fully equipped with the tools needed to deal with the tasks and challenges of the adult period (4). The adolescents, along with issues of identity, gender, relationships with friends, curriculum and like that, are looking for experience the things with the living standards of adults around them; one of them can be experiencing the high-risk behaviors like the drug abuse (5). According to previous results many teenagers who experience the drug use, experience the other high-risk behaviors which have potentially dangerous consequences for the person, such as the antisocial behaviors, delinquency and high-risk sexual behaviors (6, 7). Many teens lack the basic and essential skills in dealing with life issues and this has made them vulnerable to the problems of routine life (8), like the formation of high-risk behaviors. As a result, the psychologists have outlined the high-risk behaviors by introducing the term "problematic behavior" syndrome. These individuals believe that high-risk behaviors that endanger the health and life of adolescents, young people and the other people in the community (9).

According to the Center for Disease Control and Prevention, smoking behaviors, tobacco use, high fat foods and low fiber consumption, physical inactivity, alcohol consumption, high-risk sexual behaviors, drug abuse, etc. are considered as the high-risk behaviors, which are increasing in the adolescents' community (10). One of the ways to improve the health in the community is to provide the services and training the life skills at different levels. The individuals require the different functions to adapt to their lives, which among all the training programs, life skills have been the focus of these activities. These skills prepare people to overcome the tensions that are present in the modern society (11, 12). Evidence suggests that the life skills approach

increases social, cognitive, emotional and behavioral competencies which are effective in reducing negative or dangerous behaviors (delayed drug intake, preventing high-risk sexual behaviors, reducing anger and violence) (13, 14). Life skills are a set of abilities that provide the context of positive and useful adaptation and behavior. These abilities enable a person to take responsibility for his social role and without hurting oneself and the others, effectively meet the demands, expectations and problems of daily life, especially interpersonal relationships (15, 16). In general, many socio-psychological problems such as depression, alcohol, interpersonal problems, loneliness, schizophrenia and etc., are related to the weakness of life skills and social communication (3, 17). Training the life skills in the various programs has been effective and useful in preventing the drug abuse, adolescent pregnancy, Human immunodeficiency virus infection and acquired immune deficiency syndrome (HIV/AIDS) prevention, peacekeeping and preventing sexual abstinence (18).

In fact, the life skills are the way to a new lifestyle that by learning them, one can experience a more successful life. Life skills are personal and social skills which by learning them, people will be able to work more effectively and more appropriately in relation with themselves, other people and the whole community (19). Therefore, one of the common social and behavioral injuries among the different populations, especially adolescents, is the emergence of high-risk behaviors among them which emphasizes the need to pay attention to the health and training the life skills. In this regard, the extensive researches have been done to confirm this issue both inside and outside the country. In a research on the adolescents drinking alcohol in Thailand, it has shown that the efforts to prevent and control the alcohol use should start in the early adolescence,

especially focusing on high-risk groups, including older adolescents, males and those who currently use alcohol (20). Lou et al. (21) investigated the effect of self-awareness on the recognition of high-risk sexual behaviors and the use of contraceptives among Chinese female students; the results of their research showed that in the case group, the perception rate of perinatal risk increases the infection with HIV/AIDS. In the study of Zarei et al. (22) which was related to the effect of self-awareness training on reducing the high-risk behavior related to the opposite sex, the findings indicated that self-awareness training was effective on reducing the high-risk sexual behavior in the experiment group. Carlson et al. (23) found in their research that the self-awareness facilitated the recognition of individuals' needs, interests and values and thus help them to choose their behavioral responses proportionate with the needs and values. The results of Kaki's research (24) on the effectiveness of social skills training on the reduction of addiction among female pre-university students in Tehran showed that the social skills training reduces the addiction. In another study, the impact of drug prevention on the high-risk sexual behaviors of young adults and adults, the findings showed that using the appropriate drug-use prevention methods and providing proper life skills training can significantly prevent high-risk sexual behaviors and the occurrence of illness related to it (25). According to the research background, it can be concluded that it has been confirmed the impact and role of life skills training on the reduction of high-risk behaviors in the majority of researches, but given the fact that the culture, situation, and circumstances of each society differ from that of other ones, the present study aimed to investigate the effect of life skills training on decreasing the risk behaviors of male high school students in Kermanshah city in the academic year 2017.

2- MATERIALS AND METHODS

2-1. Study design and population

The statistical population of this study was 453 students of Mullah Sadra high school in Kermanshah city (Iran). The selection of this school was targeted among the schools of Kermanshah. The school was selected according to the report of the police and famous individuals in an area where the frequency of high-risk behaviors was high. Regarding the gender differences in the case of risk behaviors indicating that the high-risk behaviors in boys are higher than girls, with the exception of attempting to suicide in girls which is more than that in boys (8); for this reason, it was focused on the boy students. In this research, the sampling was done in two stages; first, to identify the individuals with high-risk behavior

questionnaire (26), was used for this research, and 30 students who have high-risk behaviors and willing to participate were selected and were randomly assigned to intervention group (n=15), and control group (n=15) based on the number of students (27). The intervention group was trained by instructors in 12 sessions of 90 to 120 minutes with life skills training. The life skills training classes focused on three components of life skills included: problem solving, self-awareness and stress control (**Table.1**). The life skills questionnaire was completed by two groups before, after and one month via the self-reporting. The life skills questionnaire was completed before intervention (pretest), immediately after the intervention (posttest), and one month after the intervention (follow-up) by two groups (Intervention and control groups).

Table.1: The content of the life skills training sessions

First session	Getting familiar with the subjects, relationship with them, familiarize them with the life skills program and familiarize them with the rules of the workshop and how to participate in the workshop and the purpose of the workshop.
Second session	Informing about the high-risk behaviors with the goal of preventing them from occurring using life skills.
Third session	Mental Health, Definition and Its Components, Epidemiology Viewpoint, Life Skills Goal, Mental Health Criteria.
Forth session	Problem-solving, definition, stages, prioritizing the issues, how to use this skill in solving the problems and tensions, choosing the best solution, problem-solving preventing factors.
Fifth session	Problem-solving skills, Brain precipitation and making correct decisions in life, Brain precipitation base, possible disadvantages of the brain precipitation, increasing the mental capacity using brain precipitation and problem-solving.
Sixth session	Problem-solving skill, how to use it in dealing with issues and problems, problem-solving process, structured stages of problem, types of problem.
Seventh sessions	Emotion control, negative and positive functions of anxiety and anger, causes of anger, ways to cope with anger, three feelings of anger, use of rational evaluations.
Eighth session	Stress, negative and positive emotions, stress control strategies, defense mechanisms, various defense mechanisms, self-consciousness or unconscious defense mechanisms; to what extent the defense mechanisms should be used?
Ninth session	Stress and coping with stress, definition of stress, effects of stress intensity and performance, definition of coping, recognition of stress symptoms, stress consequences, stress strategies and exercising them.
Tenth session	Self-awareness, defining the characteristics of self-awareness signs, reviewing previous researches and the importance of life skills, variables related to the self-awareness skills.
Eleventh session	Types of self-awareness, characteristics of self-conscious people, coping with the high-risk behaviors using self-awareness skills, self-awareness of the source of skills, identifying weaknesses and strengths, self-confidence, being responsible.
Twelfth session	A brief review of past sessions, brief introduction of other life skills, analysis of various risk behaviors using life skills, using life skills for others and guiding them.

2-2. Measuring tools

2-2-1. High-risk Behavior Questionnaire

This questionnaire consisted of 9 subscales including: high-risk driving (3 items), high-risk behaviors (5 items), high-risk sexual behavior (4 items), suicide (5 items), cigarette (4 items), hookah (3), alcohol and drug use (5 items), food consumption (4 items), sleep and exercise (5 items), and 4 categories including: 1- Violence (high-risk driving, high-risk actions and suicide attempt), 2- Drug abuse (smoking, alcohol, hookah and drugs), 3- Insecure sexual behavior, and 4- Health related behaviors (food consumption and sleep and exercise), which is a total of 38 questions which reliability was obtained 0.81 using Cronbach's alpha (26). The method of scoring questions: each one of the items is scored to the extent that indicates high-risk behavior from no risky behavior (zero score), and the least risky behavior (score 1) to the highest risky behavior; otherwise, higher scores in this tool represent risky behaviors.

2-2-2. Life Skills Questionnaire

This questionnaire was developed by Saatchi et al. (28) in 2010, which consists of 144 questions and consists of 19 subscales; these subscales are as follows: self-awareness, having life skills, human communication skills, interpersonal relationships, decision making, mental health, physical health, problem solving skills, collaboration skills, creative thinking (creativity), critical thinking, showing individual responsibility, understanding and promoting the principles of freedom, justice and equality, participation in activities that improve interests, showing social behaviors, globalization citizen, professional skills, skills to observe and apply safety tips and use of information technology skills. After the development of the questions, 10 experts have been used to assess external

validity (formal and external), and internal validity (construct and content), and its apparent and content validity has been confirmed in order to investigate the validity of the questionnaire (28). In a comparative study, in order to assess the reliability of the questionnaire, after performing a preliminary test on 50 samples, the coefficient of 0.97 was calculated as the coefficient of validity using the Cronbach's alpha method. Also, this questionnaire was investigated in 2002 by Saatchi et al. (28) and Cronbach's Alpha coefficient was reported 0.93.

In this research, focus was only on three components of life skills, namely problem-solving skills (6 items), self-awareness skills (15 items), and coping with stress (10 items). To determine the validity, the short form of the questionnaire was evaluated using content validity method (with a survey by some psychologists on the suitability of the questionnaire). After pre-test, reliability of this questionnaire for these three subscales was obtained 0.86 using Cronbach's alpha method. The scoring method of this test has a Likert spectrum (5 items), so that the item of lack skill has score zero, low item has score one, relatively weak item has score two, relatively strong item has score three and strong item has score four. The greatest score in this questionnaire is 567 and the lowest score is zero. The more the person's score reaches the highest level, the more his acquired life skills are. Higher scores in this tool represent enjoyment of Life Skills.

2-3. Ethical consideration

Participation in the study was voluntary and it was received the written consent from the participants for participation in the study before being included in the study. This research was approved by the Kermanshah University of Medical Sciences Ethics Committee with the code KUMS.REC.1397.071.

2-4. Inclusion and exclusion criteria

The inclusion criteria were receiving a score of 74 and above from the risky behavior questionnaire and a score of 60 and lower from the life skill questionnaire. Students who did not attend regular training sessions or did not fully complete the questionnaire were excluded.

2-5. Data Analyses

The data were analyzed using SPSS software version 23.0. Comparison of the variables was done through the Chi-square test and paired t-test; p-value less than 0.05 were statistical significant.

2- RESULTS

The purpose of this study was to determine the effectiveness of life skills training (with emphasis on three components of self-awareness, problem-solving and stress control) on reducing the high-risk behaviors in boy high school students. The subjects of this study included 30 students, 15 ones were in the intervention group and 15 ones were in the control group. The mean and standard deviation (SD) scores of pretest, posttest and follow-up of drug abuse behavior, violence, insecure sexual behavior, high-risk behaviors and Life skills in the intervention and control groups are shown in **Table.2**.

Before using multivariate analysis of variance test, Levin test was used to observe the defaults of this analysis. Levin's test was performed in the high-risk health behaviors ($F=2.966$, $P>0.096$), drug abuse behavior ($F=0.531$, $P<0.472$), violence ($F=1.266$, $P>0.270$), and insecure sexual behavior ($F=1.557$, $P<0.222$), and non-significant. Therefore, the variance of post-test error in two intervention and control groups were not significantly

different in the posttest stage for the variables of high-risk behaviors, drug abuse behavior, violence, and insecure sexual behavior and the assumption of homogeneity of variances in the post-test stage is confirmed (**Table.3**).

Levine test in the health high-risk behaviors was ($F=0.493$, $P>0.488$), the drug abuse behavior ($F=1.594$, $P>0.217$), violence ($F=2.388$, $P>0.134$), and insecure sexual behavior ($F=2.515$, $P<0.124$), and non-significant. Therefore, the variance of posttest error in two experiment and control groups were not significantly different in the follow-up stage for the variables of high-risk behaviors, drug abuse behavior, violence, and insecure sexual behavior and the assumption of homogeneity of variances in the follow-up stage is confirmed (**Table.4**).

The results of multivariate analysis of variance showed that there is a significant difference between the intervention and control groups in terms of at least one of the dependent variables (health behaviors, drug abuse, violence and insecure sexual behavior) (**Table.5**). The difference of the post-test of the studied groups (intervention and control) in the high-risk health behaviors ($F=16.574$, $P<0.001$), drug abuse behavior ($F=7.994$, $P=0.009$), and violence ($F=65.474$, $P<0.001$), and they are not significant in the variable of insecure sexual behavior ($F=0.090$, $P<0.766$) (**Table.6**).

The difference in the follow-up test of the groups (intervention and control) in the high-risk health behaviors ($F=11.584$, $P<0.002$), drug abuse behavior ($F=8.885$, $P<0.006$), and violence ($F=60.394$, $P<0.001$) were significant and for insecure sexual behavior ($F=0.467$, $P<0.500$) are not significant (**Table.7**).

Table-2: The mean of the variables of the research variables in the two groups in the pre-test, post-test and follow-up stages

Variables	Statistical Indices	Intervention group			Control group		
		Pre-test	Post-test	Follow-up	Pre-test	Post-test	Follow-up
Drug use behavior	Mean	30.60	27.47	26.80	28.87	28.27	27.60
	Standard deviation	5.62	4.56	4.28	6.24	6.16	5.90
Violence	Mean	13.67	9.93	10.47	14.07	13.20	13.80
	Standard deviation	1.29	1.22	1.30	1.83	1.52	1.42
Insecure sexual behavior	Mean	35.00	35.07	34.73	36.53	36.67	36.40
	Standard deviation	4.55	4.57	4.48	0.91	1.11	0.90
High-risk health behavior	Mean	194.00	184.13	180.33	194.40	199.87	190.67
	Standard deviation	21.99	13.47	15.29	22.29	21.32	21.17
Life skills	Mean	88.73	96.93	89.67	85.93	93.60	89.87
	Standard deviation	17.87	15.70	22.25	23.68	21.69	14.61

Pretest: Before intervention; Posttest: Immediately after intervention; Follow-up: One month after intervention.

Table-3: The results of analysis of variance for the dependent variable of high-risk behaviors and its components (drug use behavior, violence and insecure sexual behavior) at the post-test stage

Dependent variable	Freedom degree 1	Freedom degree 2	F	P-value
High-risk behaviors in the health field	1	28	2.966	0.096
Drug use behavior	1	28	0.531	0.472
Violence	1	28	1.266	0.270
Insecure sexual behavior	1	28	1.557	0.222

Table-4: The results of analysis of variance for the equation of error variance of dependent variables in the experiment and control groups at the follow-up stage

Dependent variable	Freedom degree 1	Freedom degree 2	F	P-value
High-risk behaviors in the health field	1	28	0.493	0.488
Drug use behavior	1	28	1.594	0.217
Violence	1	28	2.388	0.134
Insecure sexual behavior	1	28	2.515	0.124

Table-5: The results of multivariate analysis of variance for comparing the mean scores of posttests of dependent variables of experiment and control groups

Test	Value	F	df hypothesis	df error	P-value
Pillai trace	0.749	22.931	3	23	0.001
Wilks's lambda	0.251	22.931	3	23	0.001
Hotelling trace	2.991	22.931	3	23	0.001
Roy's Largest Root	2.991	22.931	3	23	0.001

Df: Degrees of freedom.

Table-6: The results of analysis of variance test and mean scores of posttest dependent variables in two groups

Dependent variable	Sum of squares	Freedom degree	Mean of squares	F	P-value
High-risk behaviors in the health field	1794.589	1	1794.589	16.574	0.001
Drug use behavior	37.318	1	37.318	7.994	0.009
Violence	67.474	1	67.474	65.845	0.001
Insecure sexual behavior	0.042	1	0.042	0.090	0.766

Table-7: The results of analysis of variance test and mean scores of follow-up dependent variables in two groups

Dependent variable	Sum of squares	Freedom degree	Mean of squares	F	P-value
High-risk behaviors in the health field	754.741	1	754.741	11.584	0.002
Drug use behavior	35.238	1	35.238	8.885	0.006
Violence	71.767	1	71.767	60.394	0.001
Insecure sexual behavior	0.341	1	0.341	0.467	0.500

4- DISCUSSION

The purpose of this study was to investigate the effect of life skills training on decreasing the high-risk behaviors in adolescents. The findings of the study showed that the life skills training significantly reduces the risk of drug abuse, violence and improves the health behaviors among the students. These findings show the effect of life skills training on reducing the high-risk behaviors and are consistent with the findings of the researches done by Magnani et al. (29), Mohammadzadeh et al. (30), Sohrabi et al. (31), Campbell-Heider et al. (32), Sharifidaramadi et al. (33), Lou et al. (21), and Carlson et al. (23). These studies have found that by training life skills and skills coping with the drug, the attitude of individuals, especially adolescents at risk, can be significantly changed about the drug use; the reason for this is that people's attitude towards an issue is based on the cognitive level that they have for it. When teenagers living in high-risk areas find only false information about the drugs, they often find a relatively positive attitude toward these drugs with false information and emphasis on deceptive drugs. Also, the

results of Kokia's research (24) on the effectiveness of social skills training on the reduction of addiction among female pre-university students in Tehran city showed that the social skills training reduces the addiction, readiness for addiction and admission to addiction and prevents addiction in adolescents. In the study of the effect of life skills training on reducing the drug use in students, the results showed that there is a significant difference between the mean scores of students in the control and experiment group after the implementation of the life skills training course (24). The results of some studies indicate that adolescents and delinquents have some skill deficits, including the self-knowledge, effective interpersonal relationships, decision-making, creative thinking, coping with stress, etc. (34). Also, many emotional-psychological problems, such as anxiety, depression, aggression and disorders of social function are due to the weak life skills that require attention and intervention (35). In Iran, Ajalli et al. (36) concluded that using life skills can reduce stress, anxiety, and overall emotional reactions in adolescents. The results of the present study showed that the life skills training has not been

effective in reducing insecure sexual behavior of the students. This finding is not consistent with the results of researches done by Zarei et al. (22), Shechtman et al. (37), Lou et al. (21), Magnani et al. (29), and Seangpraw et al. (38). Finally, the mean follow-up scores of the insecure sexual behavior of the intervention group indicate that, the insecure sexual behavior of the intervention group in the follow-up with the control group is not significant. Therefore, it can be concluded that it has been effective the life skills on high-risk behaviors, the drug abuse behavior, violence and improving the health behaviors in students, but has not have any significant effect on the insecure sexual behavior.

4-1. Limitations of the study

This study has the following limitations: This research has been done on boy high school students in Mulla Sadra high school of Kermanshah city, so it is necessary to be cautious in generalizing results to other schools and students and samples outside of the educational environment. Due to the lack of sufficient time, we conducted a follow-up test over a short period of time. This would doubt the impact of workshops in the long run.

5- CONCLUSION

According the results, the educational intervention significantly reduces the risk of drug abuse, violence and improves the health behaviors among the students. It is suggested that life skills training in secondary schools be taken seriously.

6- CONFLICT OF INTEREST: None.

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