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## EFFECTIVENESS OF THE LIFE SKILLS EDUCATIONAL PROGRAM 2 YEARS AFTER IMPLEMENTATION

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### ABSTRACT

**Background:** The current survey was implemented to evaluate the effect of the life skills education on improving social empowerment and also decreasing depression, anxiety and stress two years after program.

**Materials and methods:** A case- control cross sectional study was done among 600 students of Isfahan province. Sampling process was implemented using multi-stage sampling in the case group, and matched with cases in the control group. Data were collected using questionnaires including knowledge and performance regarding life skills, psychosocial empowerment, and short- form of symptoms of the depression, anxiety and stress. In final, to analyze, logistic regression was used.

**Results:** The most of the students in the both groups had normal levels of depression, anxiety and stress. In the case group 23.6 and 14.5 percent of the students had moderate and mild depression, respectively; while, in the control group 21.5 and 19.3% had moderate and severe depression, respectively. The odds ratio of social participation for men in the case group was 1.26 (p=0.003, CI: 1.08-1.46) times in the control group. The case and control groups were not significantly different due to comparing odds ratio of other psychological factors and depression, anxiety and stress symptoms.

**Conclusion:** The current findings reported that life skills education program are not likely beneficial and sustainable to improve mental health of students 2 years after the program.

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### Introduction

The life skills is known as psychosocial and interpersonal skills that can be useful for supporting people to make decisions, to make relation effectively, to develop coping skills and management ability and, in brief, to have healthy and productive life [1]. Aforementioned skills increase adaptation and positive and efficient behavior, then, it able person to adopt their own social role and effectively deal with the challenges and problems without harm to themselves or others [2, 3]. According to World Health Organization (WHO), life skill is different and various, however, some of them play an important role including problem solving skill, empathy, critical and creative thinking, decision making, coping with emotions and stress, communicate effectively with others, self-awareness, interpersonal relationships [4]

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Nowadays, a significant portion of the formal education system in the world dedicated to teaching life skills. Numerous studies showed that life skill training can effect on Knowledge of problem-solving, self-awareness skill, self-monitoring, facts assessment and coping skills, psychosocial competencies and motivation in school, reducing alcohol consumption, decision making skills, responsibility, interpersonal skills, ethical behavior and social skills in students beneficially [5, 6, 3] with regards to the various surveys, many students are heavily involved in various types of mental illness due to characteristics of adolescence, academic failure and inability to solve problems [7]. According to the researches, life skill training among adolescent may effect on the reducing symptoms of mental disorders such as depression, anxiety and stress [8]. Wall and et al. (2011), explored factors including prevention of depression and promoting life skills in a survey titled global programs related to school [9] Its findings described that life skills training have positive effects on participants, social relations development, depression signs and aggressive behavior. Aforementioned documents cause students training in terms of life skill in Isfahan city. The program was conducted in 10 districts of the Isfahan province and a total of 20000 male and female students were participated. Students were provided informally with 12 educational sessions (90 minutes for each session). The participant number of each class was determined 35 because of organizing appropriate training sessions. Despite the extraordinary vital role of evaluation, evidence suggests that this important part of life skills training programs have not formally taken into consideration; moreover, in the investigating life skill training effectiveness, psychological and social aspects of participants have been rarely considered. Thus, the current study was done to investigate the effect of life skills training on increase social empowerment and reduce depression, anxiety and stress of students two years after implementation.

## **Materials and Methods**

### **2-1. Study design and participants**

A total of 600 students in Isfahan province in a case and control (300 participants in each group) study were explored. Students provided with life skill training program in the 10 area of Isfahan province were considered as case group, multi-stage sampling was implemented for this group. Initially, 5 areas were randomly selected from the 10 area, then, two high schools were randomly considered (to control gender effect, a female and a male school) from each area, in brief, given the size of each area of the sample, randomly junior high school students (study was done in the first-year students and two years ago) were selected. Inclusion criteria in the case group were as follow 1) consent to participate in the study 2) participation in the life skills training program in all sessions in the first year and 3) lack of severe mental health problems. To control time confounding variable affects, confidence in the results and to relate the results to the training program, matched control group was applied. Students were matched by combining the following approach:

- Exploring and adaptation demographic characteristics based on the last housing census
- Use of statistics of education organization
- Use of informants of informed persons in the areas

Sample size was calculated based on sample size for comparison two means, confidence interval % 95, test power % 80 and the estimation of standard deviation change of life skills and 5 score error in the two groups.

### **2-2. Instrument**

To assess adolescent's empowerment, a two- part questionnaire including direct effects (knowledge and performance of adolescent about life skills) and indirect effects (educational success, recreational activities, social participation, cultural competence, self-perception and positive options) were used [10]. The first part of the questionnaire was designed to investigate evaluation of program outputs and it was also included 14 questions in terms of knowledge of life skills as yes or no; moreover, 17 questions about adolescents performance of life skills.

The second part of the questionnaire was designed to test psychosocial capabilities that consisted of 32 questions including educational success (9 items), recreational activities (3 items), social participation (5 items), cultural competence (5 items), self-perception (5 items) and positive options in life (5 items). This part and performance part designed as 3- point Likert Scale (yes= 3, somewhat= 2 and no= 1). Validity and reliability of the questionnaire was confirmed in a pilot study. The mean of content validity index (CVI) was 0.91. Total reliability was 0.87 and for mentioned sub-scales was 0.85- 0.94.

To study student's mental health, the short form questionnaire of symptoms of depression, anxiety and stress (DASS) was used; this instrument consisted of 21 symptoms associated with negative emotions (depression, anxiety and stress) [11]. Depression subscale measures unhappy mood, lack of self-esteem, hopelessness, worthlessness toward life, lack of interest to engage in the life, lack of enjoyment of life and loss of energy and power. Anxiety subscale surveys high physiological arousal, fear and situational anxiety, in final, stress subscales investigates difficulty in achieving peace, irritability and restlessness. The current questionnaire was tested by numerous studies from psychometric properties points of view. A total internal consistency coefficient (Cronbach's alpha) of the scale was 0.93 and 0.88, 0.82 and 0.90 for the three subscales of depression, anxiety and stress, respectively [12, 13].

### **2-3. Procedure**

At the baseline, all subjects associated with programs were determined because agreement plays an important role in evaluation of a program. Some sessions were initially held with eligible persons including educational consultants of Education Department, advice experts in related area and experts of deputy, in the next step, they were provided by

evaluation plan in details and an agreement was achieved in terms of implementation of the study and its criteria. According to the existed information, samples were collected from the schools covered by the program; meanwhile, students in the control group were determined by using of matching process. The researches collected information using mentioned instruments in the case and control groups. The researchers were adequately informed regarding the principle of data collection (such as administration and organization of sessions, identify students, how to complete the tool, read the instruction manual and how to collect information).

#### **2-4. Data Analysis**

To analysis, SPSS (ver. 21) was used. The odds ratio (OR) of direct and indirect effects of the program and depression, anxiety and stress in both groups (case and control groups) were examined using multivariate logistic regression model, and 95 percent confidence interval. Logistic regression analysis for female and male was separately done because of different findings caused by gender.

#### **Results**

A total of 600 students (300 person in each group) were participated that 588 samples were finally completed the survey. In the case and control group, 8 and 2 participants were excluded, respectively due to their confounding information; furthermore, 2 participants in the case group were excluded because of failure to fill out the questionnaire. In the case group, 290 students were investigated that 152 (% 52.4) were male, while, in the control group, 298 students were studied that 157 (% 52.7) were male. The most of the students in the both groups had normal levels of depression, anxiety and stress. In the case group 23.6 and 14.5 percent of the students had moderate and mild depression, respectively; while, in the control group 21.5 and 19.3% had moderate and severe depression, respectively. According to the anxiety level, most of the students in the case and control groups had moderate levels of anxiety (26 and 23.5 percent, respectively) and severe (24.2 and 21.8 percent, respectively). Despite of that in the case group, 16.8 and 16.1 percent of students had moderate and severe stress, respectively, while, in the control group, 18.5 and 14.5 percent had severe and low stress, respectively (table 1). There was not a significant relation between the case and control group in terms of depression, anxiety and stress ( $P > 0.05$ ).

##### **Insert table 1**

Logistic regression results reported in the table 2 for men in the case and control groups. The odds ratio of social participation was 1.26 ( $P=0.003$ , 95 percent CI: 1.08-1.46). Odds ratio of the other psychosocial factors among male in the case and control group was not significant. According to the findings, the odds ratio of depression (OR = 0.97, 95 percent, CI: 0.92-1.01), anxiety (OR = 1.06, 95 percent, CI: 1.00-1.11) and stress (OR = 1.00, 95 percent, CI: 0.95-1.04) were not significant ( $P > 0.05$ ).

##### **Insert table 2**

Women in the both groups were similar with regards to knowledge (OR = 0.94, 95 percent, CI: 0.85-1.04), life skills (OR = 1.05, 95 percent, CI: 0.97-1.14), educational success (OR = 0.95, 95 percent, CI: 0.89-1.02), recreational activities (OR = 0.85, 95 percent, CI: 0.72-1.00), social participation (OR = 1.02, 95 percent, CI: 0.88-1.18), self-perception (OR = 1.04, 95 percent, CI: 0.90-1.19) and positive options (OR = 1.00, 95 percent, CI: 0.88-1.13). The odds ratio of depression (OR = 0.98, 95 percent, CI: 0.95-1.02), anxiety (OR = 1.03, 95 percent CI: 0.99-1.08) and stress (OR = 0.98, 95 percent, CI: 0.93-1.02) were not also significantly different between the case and control groups for women ( $P > 0.05$ ).

##### **Insert table 3**

#### **Discussion**

Studies state that most educational programs usually lack a modern coherent evaluation due to its complication that makes it necessary to use specific methods to evaluate educational programs. Reliable and valid evidence about the impact of education on improving the behavior of participants and its indirect consequences of a long-term plan can be resulted by a useful educational program that cites an important aspect of training and evaluation that usually means effectiveness of the education [14]. To teach life skills, a huge cost spent by the educational related organizations regardless the either long term evaluation or appropriate feedback in the organization [15, 16]. The our results showed no significant difference between the two groups about knowledge and performance of life skills as the direct effects of life skills educational program; while, exploring indirect effects only described effective education on male social participation and other psychosocial factors were similar in the two groups.

Studies showed that life skills education increase behavioral skills in students significantly including participation and self-skill. Nabors and et al. (2000) believed that the life skills education is beneficial to augment self-confidence and responsibility of high school students. Social participation difference can be justified because aforementioned factors play an important role in promoting students social participation [17]. Moreover, it is expected that male students have poor condition compared to the females in the skills of participation, self-skill and responsibility that it would justify a change of social participation in the male group. The importance and necessity of examining and evaluating the outcomes of life skills education have become common and agreed by the scholars in the numerous studies. Evaluation the effectiveness and sustainability of the life skills education is so critical in the assessment of life skills education. The comparison of educated group with control one showed that depression, anxiety and stress was not significantly different.

Life skills education results are controversial in the way that some scholars reported its positive effects and others described its no preventive effect [18, 19, 20, 21]. With regards to the studies in Iran, life-skills education is useful and preventive [22, 23, 24]. Our survey maintain that failure to achieve predetermined objectives cannot be attributed to the factors including lack of education hours, lack of facilities during the program implementation and using untrained consultants and educators. It seems likely that the difference between the current study with the previous surveys in Iran refers to the duration of follow-up in other studies. For example, Sorensen and et al (2012) and Adame and et al. (2013) studied life skills education effectiveness with the similar methodology and outcomes and different follow-up as 30 days and 1 year. In the first survey, researchers believed that life skills training program are effective method of adjustment outcome based on the 30-day follow-up; whereas, in the second one, after 1 year follow-up, no significant outcomes achieved [25,26]. Unfortunately, program evaluation mostly implemented with short-term follow-up or immediately that caused poor or biased feedback that seems justifies the limitation of similar studies with the current survey. Although, our results reported lack of current program effectiveness, identifying its causes is so vital that require precise investigation of the field, inputs and processes. Attempts to identify the problems, needs and opportunities in the educational context are important [27]. Initial need assessment and determining actual needs and characteristics of students in terms of life skills seem to be the most important program defects. Content analysis also presented that educational content is not based on the identifying real needs of students; however, the common education method has been limited in persuading students regarding educational contents. The previous studies showed that compression educational courses may essentially caused different results; then, the studies that provided students with the long-term life skills education, had higher effectiveness [25]. Since the current survey was done using self-administered questionnaire, then, confounding role of data collectors formed key concern of the our investigation; thus, blinding process was implemented for them. Focusing on outputs and lack of content, inputs and process evaluation caused the main weakness of the current study.

### **Conclusion**

Present study delineated that life skills education program are not likely beneficial and sustainable to improve mental health of students 2 years after the program. Based on the results, decision makers will be able to decide in terms of proceeding, canceling and modification of life skills education program.

**Conflict Of Interest: None.**

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**Table 1.** The level of depression, anxiety and stress in case and control group

Variable		Case		Control		Total	
		n	%	n	%	n	%
Depression*	Normal	97	35.1	102	37.1	199	36.1
	Mild	40	14.5	28	10.2	68	12.3
	Moderate	65	23.6	59	21.5	124	22.5
	Severe	39	14.1	33	12.0	72	13.1
	Extremely Severe	35	12.7	53	19.3	88	16.0
Anxiety*	Normal	87	31.9	98	35.6	185	33.8
	Mild	24	8.8	20	7.3	44	8.0
	Moderate	71	26.0	64	23.3	135	24.6

	Severe	25	9.2	33	12.0	58	10.6
	Extremely Severe	66	24.2	60	21.8	126	23.0
Stress*							
	Normal	121	44.3	117	42.5	238	43.4
	Mild	42	15.4	40	14.5	82	15.0
	Moderate	46	16.8	36	13.1	82	15.0
	Severe	44	16.1	51	18.5	95	17.3
	Extremely Severe	20	7.3	31	11.3	51	9.3

\* Chi-Square test, P>0.05

**Table 2.** ORs and 95% CIs of males participated in life-skills educational program compared with matched controls

Variable	No. of controls	No. of cases	Wald	OR	95% CI	p-value
Depression	141	146	1.76	0.97	0.92-1.01	0.18
Anxiety	142	144	3.62	1.06	1.00-1.11	0.06
Stress	140	145	0.01	1.00	0.95-1.04	0.93
Knowledge	157	152	0.23	1.02	0.93-1.11	0.62
life-skills	146	147	0.46	0.97	0.89-1.05	0.49
educational success	151	150	0.67	0.96	0.89-1.04	0.41
Recreational activities	154	151	3.41	0.86	0.74-1.00	0.07
social participation	146	146	9.06	1.26	1.08-1.46	0.003
cultural competence	144	151	0.10	0.97	0.85-1.11	0.74
self-perception	152	148	0.06	1.01	0.88-1.17	0.80
positive options	155	147	0.86	1.05	0.94-1.17	0.35

**Table 3.** ORs and 95% CIs of Females participated in life-skills educational program compared with matched controls

Variable	No. of controls	No. of cases	Wald	OR	95% CI	p-value
Depression	134	130	0.29	0.98	0.95-1.02	0.59
Anxiety	133	129	2.46	1.03	0.99-1.08	0.11
Stress	135	128	0.81	0.98	0.93-1.02	0.36
Knowledge	141	138	1.27	0.94	0.85-1.04	0.25
life-skills	139	136	1.79	1.05	0.97-1.14	0.18
educational success	141	135	1.37	0.95	0.89-1.02	0.24
Recreational activities	140	134	3.51	0.85	0.72-1.00	0.06
social participation	131	133	0.11	1.02	0.88-1.18	0.73
cultural competence	137	135	2.53	1.11	0.97-1.28	0.11
self-perception	140	137	0.32	1.04	0.90-1.19	0.57
positive options	140	136	0.01	1.00	0.88-1.13	0.97