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The Effectiveness of Life Skills Book Training on Improving the Social Skills, Problem Solving Ability, and Self-esteem of Female Students in Mazandaran Province

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Abstract: The present study aimed to investigate the effectiveness of life skills book training in improving the social skills, problem solving, and self-esteem of female students in Mazandaran province. The research method was experimental and the statistical population included all female students of the first year of secondary school in Mazandaran province. The sampling method was in random cluster sampling. Participants were 144 people that selected from six cities who were eligible and randomly assigned to experimental and control groups. The experimental group was trained once a week for three months during 12 two-hour sessions. Inderbitzen and Foster's social skill (1992), Eysenck 's self-esteem (1979) and Heppner's (1987) problem solving questionnaires were used to collect the data. The results indicated that the self-esteem of the experimental group after training the life skills book in the female students of Babol, Amol and Sari, and the problem-solving skill of the female students of Sari and Babol were significantly different from the control group ($p<0.05$). However, there was no significant difference between the control and experimental groups in self-esteem of the female students in Neka, Chalous and Tonekabon, and problem-solving skills of the female students in Neka, Babol, Chalous and Tonekabon, and social skills of the female students in all the studied cities ($p>0.05$). Based on these findings, it was concluded that the effectiveness of life skills book training was different from improving the social skills, problem solving, and self-esteem in the female students of Mazandaran province.

Keywords: Life skills training, social skills, problem-solving ability, self-esteem, female students

Introduction

The concept of life skills has grown in recent years and its importance is due to its valuable contribution in improving the mental and physical health of people (Maddah et al, 2021). Life skills is recognized as an essential resource to develop emotional, cognitive, behavioral, and resilience skills in order to confront routine challenges of society (Nasheeda, Abdullah, Krauss, & Ahmed, 2019). Life skills are a group of psychological and interpersonal skills that help people deal with their life in a healthy and productive manner (Sheykholeslami, Ghamari Kivi, & Fayazi, 2021). Life skills training program is a psycho-educational, and health promotion model, which is planned and drafted, based on several theoretical models including Bandura's self-efficiency, and social learning theory, problematic behavior, and persuasive communication theory (Botvin, Griffin, Diaz, & Schier, 2000) although some studies underestimated the efficacy of life skills training compared with other therapeutic and educational approaches (Chung-Huang, Chen, Greens, Cheung, & Wei, 2019; Karasel, Ayda, & Tezer, 2010; Larrauri, Chirino, & Loreezo, 2009). The goal of life skills training is equipping people with appropriate knowledge about high-risk behaviors, and developing skills such as communication, assertiveness, self-

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awareness, decision-making, problem-solving, creative, and critical thinking in order to protect themselves against abuses (Nasheeda, Abdullah, Krauss, & Ahmed, 2019).

Dealing with life's pressures and gaining social and individual skills have always been a fact of human life and manifested itself in various forms during periods of his life. As a critical period in the growth process, adolescence possesses particular significance. Therefore, it seems to address the problems of this age. According to the definition of the World Health Organization (WHO), adolescence describes the phase of life from ages 10 to 19. It means that one in six individuals in the world is adolescent; it is implied that there are about 1.2 billion adolescents and their population is increasing. This crucial stage of growth, transition term from childhood to adulthood, is diagnosed with sudden biological alterations and puberty. Many serious diseases in adulthood originate from adolescence (Tiwari, Naik, Nirgude, Datta, 2020). There is growing demand for adolescents' life skills training in order to help them to deal with their own routine life challenges, and to consciously reach adulthood through making healthy decisions (Nasheeda, Abdullah, Krauss, Ahmed 2019). Effectiveness of life skills program reflects adolescent's three key relationships: Adolescent's relationship with himself (e.g., stress management), and his relationships with others, especially peers (interpersonal skill), and parents (parents and adolescent interactions (Singla et al., 2020). Research shows that life skills training improves mental health of people, including children and adolescents in all aspects of life and it is considered as one of the most basic precautionary programs in rudimentary level. For example, in an intervention program based on life skills, it was shown that life skills training causes to improve emotional health, self-esteem, and characteristics of coping strategies in the studied group (Mohammadzadeh, Awang, & Ismail, 2017). Also, Lee and Lee (2020) reported that life skills training program has a positive effect on emotional regulation and reduction of depression symptoms and adolescents, who received life skills training, demonstrated more efficient coping skills and less self-blaming in behavior and thought (Mohammadzadeh, Awang, & Shahr, 2020), and have higher levels of educational accomplishments (Sánchez-Hernando et al., 2021). The results of other studies also indicate the positive effect of life skills training on increasing the quality of the teacher-student relationship, academic vitality and optimism (Sheivandi Cholicheh, Nafar, Hasanvand & Musavi, 2021), self-awareness, effective communication, assertiveness and humility (Ghani Far & Kharaei, 2019), self-efficacy, hope and resilience (Khosravi & Aghajani, 2019), increasing self-confidence, decision-making, boldness, self-concept and reducing interpersonal problems (Mirzei & Hasania, 2015).

The world health organization (1999) has divided life skills into a branch of cognitive skill, emotional skill and social skill (Sheivandi Cholicheh, K., Nafar, Z., Hasanvand, F., & Musavi, A. 2021). Social skills are defined as some multiplex processes that enable a person to behave in such a way which others consider him as an efficient human. These skills are required abilities to behave in a purposive and successful way (Livarjani & Gffari, 2010). Improvement of social and emotional skills in students can help them achieve success not only in school and educational affairs but also throughout all aspects of life. Several research demonstrated effectiveness of life skills training on enhancement of social skills and improvement of social performance, as well as reducing peer rejection and antisocial behaviors

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(Nangia, 2019). Social skills training has a consequential and positive effect on social and coping skills (Khodakhast & Garmaroudi, 2019). Adolescents, who possess emotional skills, are happier, more confident and capable as a family member, friend or employee. However, it seems that these people experience less high-risk behavior, such as sexual abuse, depression or violence (Fredericks, Blumenfeld, & Paris, 2004).

As one of the life skills, problem-solving skill is another variable studied in this research. Problem solving enables a person to face the problems of his life constructively. Constructive confrontation with problems is an extremely worthwhile skill, which is quite required and essential for people, especially adolescents to learn it because it assures the quality of life (Murphy, Felgoise, Walsh, & Simons, 2008). Problem-solving skills training is a cognitive-behavioral intervention (CBI) to improve an individual's ability for effectively coping with stressful life events (Peter, Sharada, Klasssen, Robinson, & Mccarth, 2006); and it can be caused to improve problem-solving ability of the youth in many cases (Lee, Chiwu ,Chieh Chang ,Chin, Shan Lin, Feng, & Lee). Applying long-term problem-solving techniques change behavior and teenagers who learn the problem-solving process can succeed in most stages of life and find solutions to problems and issues by using these skills (Mrmagan, Sagir & Celik). Pinar, Yildirim, and Sayin' study (2018) showed that there is a significant relationship between problem-solving skill and self-esteem. It means that the persons who have an upper level of problem-solving ability have higher level of self-esteem. Furthermore, problem-solving skills training can enhance adolescent's attitude towards drug abuse (Rahbari, Babapour, & Sabourimoghaddam, 2019), reduce high-risk behaviors (Radmehr & Hosseinkhanzadeh, 2018), and reduce wrath, depressed mood, and anxiety (Khakpour, Mohamadzadeh Edmelaie, Sadeghie, & Nazoktaba, 2021).

Self-esteem is one of the other skills that can be developed by life skills training. Self-esteem is the degree of approval and value that a person has for himself, or the judgment that a person has about his worth, which contributes to the development of self-confidence. Self-confidence fosters a positive mindset that guides one's life and opens doors to chances that result in happiness, success, and well-being. On the other hand, lack of self-confidence enhances anxiety, which result in a lack of control and poor performance (Hanton, Mellalieu, & Hall, 2004). Research shows that life skills training enhances self-esteem. For example, Mehrinejad, Sadri, Ramezan sa'atchi, & Ghaffari (2019) indicated that life skills training result in enhancement of self-esteem and reduction of parents-adolescent conflict. In addition, the studies of Foroutan Bagha, Nezami, Soltaninejad, Eskandari, and Tavakoli (2015) show that life skills training causes self-esteem and educational self-efficacy improvement in students. Furthermore, Modanlou, Oghli, Kamkar, Abdullahi, Manouchehri, and Falsafi (2020) found that life skills training results in enhanced self-esteem and locus of control. Due to the aforementioned content and other research findings, it is obviously clear that society needs people with required life skills for improving and adapting as these skills affect the progression of their emotional rehabilitation, social behaviors, and performances. In fact, the life skills training program is one of the available most effective preventative programs, which is evaluated more than others, and developed widely in recent years. To

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acquire these skills, school is one of the suitable platforms because students are the main audience of this program. Psycho-social interventions in schools have a beneficial impact on students. These interventions not only can benefit schools (by improving academic performance, boosting attendance, and minimizing teacher failure), but also can have positive consequences for the community.

Today, many countries in the world have started life skills training in schools. In Iran, since the beginning of the establishment of educational affairs and the design of educational programs in the schools of the country, there have been many ups and downs until now which by analyzing the past events for the development and enrichment of these programs, there are problems such as the ineffectiveness of educational activities on the academic fate of students and the lack of effectiveness of the curriculum planning system in the field of education. For this reason, in practical action to improve the educational program of the middle school period, the vice-chancellor of education of the Ministry of Education started a new experience based on what was mentioned, in the form of educational hours in schools. With the aim of implementing the school reform program, which aims to improve the psychological capacity of children and teenagers, by life skills training (Taramian, Mahjooi, & Fathi, 2005). In line with the policies of the Ministry of Education, Mazandaran Province Education tried to evaluate with a field study the effectiveness of teaching the life skills book for the students of the first year of high school. For this reason, taking into account the life skills priorities of the students of this course, the title of the current research was proposed as a research priority.

On the other hand, lack of life skills and a high-prevalence of behavioral, social and educational problems among female students made relevant studies to this field particularly important. Furthermore, lack of the previous research on this topic and the diversity of results in some of the existing interior research indicates requirement of conducting research about it and convinced the scholars of the field to focus their studies on female students. It seems all of the above-mentioned conclusions can result in improving knowledge and awareness of authorities, trustees, and students' families and taking a step toward reaching preventative aims. Therefore, the present study was conducted to explore the effectiveness of life skills training on enhancing social skills, problem solving, and self-esteem of the female high school first-year in Mazandaran province.

Material and Methods

The research method is experimental. The statistical population included all female students of the first year of secondary school in 2008 Mazandaran province. The sampling method was conducted in a random cluster. From the three geographical regions of Mazandaran province (east, west, center), six cities were selected, from the east region, the cities of Neka and Sari, from the central region, the cities of Babol and Amol, and from the west region, the cities of Chalus and Tonekabon. The approximate size of the sample in the province was about 600 people (one school from each city, 100 people from each school, and 24 eligible students from each of them). Moreover, 144 of them were selected based on Inderbitzen and Foster's social skills questionnaire (1992), Eysenck 's self-esteem (1979) and Heppner's problem solving (1987) who had low scores and were randomly assigned to two experimental

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and control groups (in each city, 12 people in the experimental group and 12 people in the control group). The experimental group was trained once a week for 3 months in 12 two-hour sessions in the same studied school and during this period, and the control group did not receive any intervention. It should be noted that this article is taken from the Mazandaran province education research plan. At the beginning of the research, the necessary permits were obtained from the relevant officials to conduct the research and submitted to the relevant authorities in the research environment. Then, with the necessary explanation and coordination, six experienced and trained consultants from the six studied cities were selected and they cooperated in the implementation of the research. Since this project was implemented provincially, the selection of the number of cities and the number of participants was based on the opinion of the specialized group of the research unit and the supervisor of the project. The condition for entering the research was the consent and eligibility of the female students for training, and the condition for leaving the training was not participating regularly in the life skills training classes. In addition, the necessary assurance was given regarding the confidentiality of the participants' information. The data obtained from the questionnaires were analyzed using descriptive statistics (frequency, percentage, central and dispersion indices), Levene's Test and independent t test with SPSS software. Another noteworthy point is that educational package of the teacher workbook sessions included life skills related to the first secondary school period.

Research Instrument:

Teenage Inventory of Social Skills (TISS): Inderbitzen and Foster (1992) developed this questionnaire, comprising 36 items. Subjects were supposed to rate themselves regarding positive and negative behaviors by selecting a score from 1 (does not apply at all) to 6 (always applies), with the scoring method being the same for both parts. If a person's score in the negative section is significantly higher than the average reported for that section, or if his/her score in the positive section is significantly lower than the reported average for the positive section, it is assumed that the person has social problems according to this questionnaire's instruction. Using Cronbach's alpha reliability, Inderbitzen and Foster reported a reliability coefficient of 0.90 for the positive section of the questionnaire, and they reported reliability coefficients of 0.72 and 0.88 for the negative part (Inderbitzen & Foster, 1992). The social behavior scale had a Cronbach's alpha internal consistency coefficient of 0.98, and the antisocial behavior scale had a Cronbach's alpha internal consistency coefficient of 0.84 (Ingliesa, Hidalgo, Mendez, & Inderbitzen, 2003). Through the Cronbach's alpha, reliability for the whole scale is determined as 0.87.

Problem Solving Inventory (PSI): The problem-solving questionnaire was designed by Heppner and Peterson (1982) to measure the respondent's understanding of their problem-solving behaviors, to measure how people react to their daily problems. Individuals' perceptions of problem-solving behaviors and tendencies are assessed with this questionnaire. It comprises 32 items that are graded on a 6-point Likert scale. In a continuum, a score of (1) indicates strong agreement while a score of 6 indicates

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extreme disagreement. The total score of the questionnaire was reported to be reliable and in the range of 0.83 to 0.78 over a two-week period, indicating that the problem-solving questionnaire is a trustworthy tool for assessing problem solving abilities (Heppner & Peterson, 1982). For all the subscales of this questionnaire, Cronbach's alpha ranged from 0.79 to 0.91 (Kourmousi, Xythali, & Theologitou, 2016). Through the Cronbach's alpha, reliability for the whole scale is determined as 0.82.

Eysenck Self-esteem Inventory (ESI): The Eysenck self-esteem inventory is a questionnaire that assesses one's self-esteem. Eysenck's (1976) efforts to evaluate personality resulted in this questionnaire. It entails 30 items that are used to estimate the self-esteem criterion. There are three options as answers: Yes, question mark (?) and no. The highest possible score is 30. Higher scores reflect a respondent's higher self-esteem and the lower scores reflect a respondent's lower self-esteem. The test's validity was measured using Cronbach's alpha, and the result was 0.83, indicating that the 30 items of the questionnaire had a high level of internal consistency, and thus, the test is accurate. Moreover, the questionnaire's validity for female students was 0.74, and it was 0.76 for male students, with a reliability coefficient of 0.88 and 0.87 using Cronbach's alpha and split-half method, respectively (Hormozi Nezhad, Shehni Yailagh & Najarian, 2000). Through the Cronbach's alpha, reliability for the whole scale is determined as of 0.92.

Table 1. Summary of the Content of Life Skills Training Sessions

Session	Title	Description
First	motivation strategies	Strategies to motivate students to start training, assess early situations by participants, and describe life skills training sessions.
Second	self-knowing	Aiming to recognize one's abilities and shortcomings in the abstract level, increasing awareness of one's interests, attributes, and future aspirations, and viewing one's positive qualities from the perspectives of others
Third	individual and family values	Having the goal of identifying family values and norms, developing a better understanding of their values, and examining their own values.
Forth	goal selection	Aiming to familiarize students with the concept of goal setting, encouraging them to reflect on past events and issues, preparing them to set long-term goals, and assisting them in identifying strategies and steps to reach the goal
Fifth	decision making	Helping student to think about the future and the consequences of some of the decisions they make, familiarity with the pattern for making the right decision
Sixth	Establishing a good communication	Familiarizing students with how to express their thoughts and feelings using the first-person singular phrase, demonstrating the importance of being a good listener, and demonstrating the importance of assertiveness
Seventh	dealing with anxiety	Teaching the concept of anxiety and distinguishing it from facilitative stressors as well as teaching cognitive mediators of anxiety and muscular relaxation techniques in order to reduce anxiety and promote mental relaxation.
Eighth	improving self-esteem	Teaching students about having a right self-concept, understanding and respecting their peer, and controlling their emotions
Ninth	decision-making-goal-setting skills, planning and problem solving	Helping students with decision-making, preparing action plan, goal setting, information gathering, life problem solving, and change management
Tenth	Improving self-expression	Rejecting the unreasonable demands of others, drawing positive feelings from others, making their own requests, and expressing positive and negative feelings
Eleventh	communication skills	Listening to others and recognizing basic communication skills
Twelfth	Improving Interpersonal Relationships	Showing respect toward others, establishing good relationships with others, participating effectively in groups, and forming healthy friendships

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Results

Demographic data showed that in terms of gender, all the participants (144 people) were female students, and in terms of their educational level, they were in the first year of secondary school, and their age range was between 14-15 years. The results of the F test showed that there was no significant difference in the pre-test scores of the studied groups in all cities and in the three variables of social skills, problem solving and self-esteem.

Table 1 reveals that the distribution and mean scores of the social skills questionnaire in both positive and negative sub-scales were not statistically significant in all cities and the studied group in the two pre-test and post-test situations. Descriptive statistics related to the problem-solving questionnaire also indicated that although the mean scores of the problem-solving questionnaire in both pre-test and post-test situations were significantly different in the studied groups in Sari and Babol, no significant difference was observed between the groups in the pre-test and post-test situations in the other studied cities. Another finding of Table 1, which was related to the mean score and standard deviation of the self-esteem questionnaire, showed a difference between the mean scores of the studied groups in Sari, Babol and Amol in the pre-test and post-test situations. But in Neka, Tonekabon and Chalous cities, no significant differences were observed between the mean scores of the two groups in the pre-test and post-test situations.

Table 2 showed that the calculated t-values of the two pairs and components (positive and negative) of the Social Skills Questionnaire were not statistically significant in the studied groups and all the studied cities ($P \leq 0.05$). The data in Table 3 indicated that the calculated t-values from the problem-solving questionnaire scores of the studied groups in Sari and Babol were different ($P \leq 0.05$); however, they were not significant ($P \leq 0.05$) in the groups from Neka, Amol, Chalous, and Tonekabon cities. The data reported in Table 4 also showed that the calculated t-values from the self-esteem questionnaire scores of the studied groups were significantly different ($P \leq 0.05$) in Sari, Babol, and Amol cities; however, no significant difference was observed between self-esteem in the experimental and control groups in Neka, Tonekabon, and Chalous cities.

Table 1. The Central Tendency and Dispersion indices of the Experimental and Control Groups' responses to the Social Skills Questionnaire, Problem-Solving Questionnaire, and Self-Esteem Questionnaire in the Pre-Test and Post-Test situations in the Studied Cities

Cities	Groups	Variable		(Pre-Test)		(Post-Test)	
			N	M	SD	M	SD
Neka	Experimental	Positive & Negative (social skills)	12	62.66 -29.33	6.77-5.6	64.25 -27.66	7.99-1.4
		Problem-Solving	12	61.08	3	63.33	2.01
		Self-Esteem	12	24.04	2.76	23.79	3.1
	Control	Positive & Negative (social skills)	12	58.41-31.16	8.17 -6.56	57.5 -28.83	8.49 -4.47

		Problem-Solving	12	59.16	3.66	60.66	4.05
		Self-Esteem	12	18.62	2.55	19.62	2.11
Sari	Experimental	Positive & Negative (social skills)	12	56.33-31.5	6.2-4.83	57.91-28	10.65-4.06
		Problem-Solving	12	57.33	5.17	62.16	4.96
		Self-Esteem	12	19.33	3.52	17.95	3.53
	Control	Positive & Negative (social skills)	12	55.66 -28.58-	10.69- 4.27	59.75 -30.91	8.56 -4.54
		Problem-Solving	12	61.41	4.75	59.66	6.66
		Self-Esteem	12	61.41	4.75	59.66	6.66
Babol	Experimental	Positive & Negative (social skills)	12	57.75 -35. 8	6.36 -7.85	59.33 -33.91	9.11-5.8
		Problem-Solving	12	58.75	5.29	62.33	1.52
		Self-Esteem	12	16.58	4.91	22.5	1.93
	Control	Positive & Negative (social skills)	12	54.66 -31. 8	6.74 -4.16	55.16 -33.08	4.82 -5.76
		Problem-Solving	12	61.83	3.58	61.35	4
		Self-Esteem	12	19.45	3.66	19.62	5.61
Amol	Experimental	Positive & Negative (social skills)	12	64-33.16	7.75 -6.14	67.16 -35.91	5.89 -5.64
		Problem-Solving	12	57.16	4.54	55.08	4.18
		Self-Esteem	12	20.04	4.42	25.75	4.38
	Control	Positive & Negative (social skills)	12	62.16 -30.8	1.9 -7.31	63.08 -32.08	5.36 -6.44
		Problem-Solving	12	62.25	3.16	61	3.76
		Self-Esteem	12	20.37	4.75	20.04	5.28
Chalous	Experimental	Positive & Negative (social skills)	12	56.75 -34.5	8.86 -5.82	59.83 -30.25	8.06-6.13
		Problem-Solving	12	58.08	5.21	59.5	4.75
		Self-Esteem	12	14.7	4.75	17.25	5.59
	Control	Positive & Negative (social skills)	12	55-38.83-	10.85-8.5	56.33-36.41	9.78 -6.84
		Problem-Solving	12	58.41	4.37	57.91	3.2
		Self-Esteem	12	17	5.49	18.25	6.55
Tonekabon	Experimental	Positive & Negative (social skills)	12	62 -30.75	6.6 -6.01	57.83 -27.66	5.67-5.07
		Problem-Solving	12	59.75	3.81	59.25	4.15
		Self-Esteem	12	18.08	4.01	20	4.15
	Control	Positive & Negative (social skills)	12	56.16 -30.9	7.93-4.98	57-29.25	6.29 -4.39
		Problem-Solving	12	61.5	4.14	58.41	4.27
		Self-Esteem	12	19.7	2.08	19.75	3.83

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Table 2. The Results of the Equality Test of Variance of Social Skills Questionnaire of the Studied Groups in the Pre-Test, and the Comparison of the Mean Differences of Pre-Test and Post-Test Scores in the Studied Cities

Cities	Groups	Element	N	M	SD	F	t	P
Neka	Experimental	Positive	12	-1.58	9.24	1.45	0.68	0.01
		Negative	12	0.91	9.07			
	Control	Positive	12	1.66	5.22	1.39	0.36	0.01
		Negative	12	2.33	3.86			
Sari	Experimental	Positive	12	-1.58	9.03	1.42	-0.58	0.01
		Negative	12	-4.08	12.05			
	Control	Positive	12	3.5	4.68	1.27	-3.16	0.01
		Negative	12	-2.33	4.57			
Babol	Experimental	Positive	12	-1.58	7.66	1.11	0.42	0.01
		Negative	12	-0.5	4.83			
	Control	Positive	12	1.16	6.61	1.53	-0.53	0.01
		Negative	12	0.2	3.9			
Amol	Experimental	Positive	12	-1.16	5.33	1.17	0.15	0.01
		Negative	12	-0.91	2.64			
	Control	Positive	12	-2.75	3.22	1.41	0.9	0.01
		Negative	12	-1.25	4.9			
Chalous	Experimental	Positive	12	-3.08	6.27	1.5	0.72	0.01
		Negative	12	-1.33	5.75			
	Control	Positive	12	4.75	6.12	1.23	-1.08	0.01
		Negative	12	2.41	4.52			
Tonekabon	Experimental	Positive	12	4.16	5.73	1.44	-1.82	0.01
		Negative	12	-0.83	7.83			
	Control	Positive	12	3.08	7.03	1.48	-0.57	0.01
		Negative	12	1.66	5.21			

Table 3. The Results of the Equality Test of Variance of the Problem-Solving Questionnaire of the Studied Groups in the Pre-Test and Comparison of the Mean Difference between the Pre-Test and Post-Test Scores in the Studied Cities

Cities	Groups	N	M	SD	F	t	P
Neka	Experimental	12	-2.33	4.31	1.49	1.17	0.05
	Control	12	-0.58	3.05			
Sari	Experimental	12	-4.83	4.83	1.18	2.61	0.05
	Control	12	1.75	7.49			

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Babol	Experimental	12	-3.58	4.56	2.19	2.506	0.05
	Control	12	0.58	3.72			
Amol	Experimental	12	2.08	4.24	2.02	-0.65	0.05
	Control	12	1.25	1.54			
Chalous	Experimental	12	-1.41	6.84	1.41	0.85	0.05
	Control	12	0.5	3.96			
Tonekabon	Experimental	12	1.66	4.53	1.17	0.72	0.05
	Control	12	3.08	5.26			

Table 4. The Results of the Equality Test of Variance of the Self-Esteem Questionnaire of the Studied Groups in the Pre-Test, and the Comparison of the Mean Differences of Pre-Test and Post-Test Scores in the Studied Cities

Cities	Groups	N	M	SD	F	t	P
Neka	Experimental	12	0	2.67	1.17	-1.06	0.05
	Control	12	-1	2			
Sari	Experimental	12	-2.5	3.66	1.59	2.22	0.05
	Control	12	1.41	4.89			
Babol	Experimental	12	-5.91	4.89	1.79	3.33	0.05
	Control	12	-0.5	2.79			
Amol	Experimental	12	-5.7	4.23	1.42	5.45	0.05
	Control	12	0.66	0.95			
Chalous	Experimental	12	-4.29	-1.29	1.33	1.63	0.05
	Control	12	5.15	3.72			
Tonekabon	Experimental	12	-1.91	4.17	1.77	1.16	0.05
	Control	12	-0.04	3.68			

Discussion

In examining the first hypothesis of the research, it was shown that the t values calculated from the self-esteem questionnaire scores of the studied groups at the error level of 0.05 in three cities (Sari, Babol and Amol) have a significant difference, but in three cities (Neka, Tonekabon and Chalus), no significant difference was observed between the experimental and control groups, which are consistent with the findings of Modanloo et al. (2020), Mehrinezhad et al. (2019) and Forutanbagha et al. In explaining this finding, it can be said that teaching life skills is a multi-faceted model, each of its aspects affecting one or more characteristics. The emotional-biological aspect of the social learning model is more compatible with self-esteem (Foroutanbagha et al. 2015). In recent years, much attention has been shown towards the development of preventive approaches to minimize or eliminate the harms and

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problems that adolescents may experience during this period. The main goal of these approaches is to facilitate the cognitive, emotional and social development of adolescents through the development of skills such as interpersonal communication, increasing self-esteem and positive self-concept, strengthening problem-solving and decision-making strategies, developing a flexible view and opinion in life, and learning the value system. Individuals are managing their emotions in order to prevent them from engaging in risky and problematic behaviors (Yarahmadian et al, 2013).

In the investigation of the second hypothesis, the t values calculated from the scores of the problem-solving questionnaire in the cities of Sari and Babol had a significant difference between the two experimental groups at the error level of 0.05, but there was no significant difference in the cities of Neka, Amol, Chalus and Tonekabon which is in line with the research findings of Lee and Lee (2020), Nangia (2019), Mohammadzadeh et al. (2017). In the explanation of these findings, it can be said that humans need functions that equip them to acquire this ability in order to deal with tensions, different situations, and conflicts in life. Findings related to adolescents in developed and developing countries showed that training life skills is a way to promote positive behavior and act as a protection against risky behaviors, and people with different knowledge backgrounds make life skills a reality. Life skills are psychosocial and interpersonal abilities for adaptive and positive behavior that enable people to deal effectively with the demands and challenges of everyday life. They include decision-making and problem-solving skills, critical thinking, communication skills, social skills, refusal abilities, developing empathy, and the ability to deal with emotions, stress, and change. These skills can be enhanced with educational curriculum and educational methods used to create and maintain healthy lifestyles, reduce risky behaviors, prevent non-communicable diseases and promote well-being, United Nations and UNICEF Life Skills Education have been promoting for about 30 years and many evidence-based programs have been approved and implemented around the world. Their effectiveness increases when implemented through a whole school approach (Velasco, Cominelli, Scattola & Celata, 2021).

The related findings related to the third hypothesis also indicate that the t-values calculated from the scores of the social skills questionnaire in the positive and negative dimensions do not have a significant difference after applying the independent variable between the experimental and control groups in all the studied cities which are consistent with the findings of Chang Hong et al. (2019), Karasel et al. (2010) and Larrauri et al. (2009).

In explaining the lack of effect of life skills training in increasing social skills in the studied cities, it can be said that although life skills programs have spread all over the world, there is little information about the effectiveness of these programs on behavior and there is an individual attitude. The skills that are developed through life skills are the behaviors of the individual and their acquisition is rarely evaluated. In fact, life skills training focuses on the effectiveness of the program rather than the experiences of the learners (Nasheeda, et al. 2019)

It seems that the educational content of life skills is set in such a way that with short-term and long-term goals such as strengthening self-confidence and independence of personality, raising balanced

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human emotions and peaceful coexistence, raising the spirit of participation and cooperation in-group activities etc., do not have the necessary and sufficient compatibility. On the other hand, the life skills training program should be done as a long-term intervention. Short-term interventions, for example, several-week interventions, have short-term effects on mental health and its improvement. Therefore, the effectiveness of this training is only tangible in the classroom to some extent, and the positive results cannot be maintained for a longer period. Another point worth mentioning is that we need reliable and valid information to make decisions about the educational processes and their results (students' knowledge, attitude and skill performance) or to determine the degree of success of the program and the subjects in reaching the educational goals. Measuring what is called life skills and finding out the level of a person's skill in applying the skills taught in real life situations and the level of mental preparation and willingness to use these skills are relatively difficult and time-consuming. Therefore, it seems that in this research, the measurement tool used alone was not able to accurately measure and the use of complementary tools such as interview and observation could show more accurate and objective results.

Finally, the skills that are called life skills are countless and their nature and definition changes according to cultures and situations. The fundamental analysis of these skills shows that some of them can be used as the basis of activities related to the promotion of mental health in schools. According to their diversity and number, various perceptions have been made regarding the life skills, and depending on the social and cultural conditions and elements, it may be different from one society to another.

In a summary, it can be said that creating an educational situation for the sample people in the current research to increase the abilities of social skills, problem solving ability and self-esteem was able to provide an opportunity for the participants to realize their weaknesses and strengths, and by increasing their psychological potential manage themselves and the environment better. The lack of opportunity or the possibility of choosing all life skills for training and more detailed examination, the lack of high generalizability in order to implement it in a specific age, education, gender and geographical range, the lack of control of variables such as abstract and emotional intelligence, academic performance, the comparison of economic and social status are among the limitations of this research. Also, based on the results of this research, it is suggested to the officials of curriculum planning in schools regarding the need to pass a lesson titled life skills by the students of this stage to take more serious decisions and start training it from the lower grades. In addition, enriching the educational content of life skills, using experienced consultants for training, conducting research in wider areas, in age groups and in both sexes will also be effective.

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References

Armagan, F. O., Sagir, S. U., & Celik, A. Y. (2009). The effects of student's problem-solving skills on their understanding of chemical rate and their achievement on this issue. *Procedia-Social and Behavioral Sciences*, *1(1)*, 2678-2684. doi.org/10.1016/j.sbspro.2009.01.473.

Botvin, G. J., Griffin, K. W., Diaz, T., & Scheier, L. H. (2000). Preventing illicit drug use in adolescents: long – term follow –up data from a randomized control trial of a school population. *Addictive Behaviors*, *25(5)*, 769-774. doi: 10.1016/s0306-4603(99)00050-7.

Chung-Huang, C., Chen, Y., Greens, L., Cheung, S., & Wei, Y. (2019). Resilience and emotional and behavioral problems of adolescents in china: effects of a short-term and intensive mindfulness and life skills training. *Children and Youth Services Review*, *100*, 291-297. doi: 10.1016/j.childyouth.2019.03.015.

Foroutanbagha, P., Nezami, M., Soltaninejad, A., Eskandari, H., & Manzari Tavakoli, V. (2015). The effectiveness of life skills training on self-esteem and academic self-efficacy of the students. *Journal of Applied Psychological Research*, 6(3), 61-72. doi: 10.22059/japr.2015.55045.

Fredericks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School Engagement: Potential of the Concept, State of the Evidence. *Review of Educational Research*, *74*, 59-109. doi.org/10.3102/00346543074001059.

Ghani Far, M., & Kharaei, K. (2019). The effectiveness of life skills training (self-awareness and effective communication) on the existence and lack of secondary school students. *medical journal of mashhad university of medical sciences*, **62(1), 94-101.** doi: 10.22038/mjms.2019.14065.

Hanton, S., Mellalieu, S., & Hall, R. (2004). Self-confidence and anxiety interpretation. *Psychology of Sport and Exercise*, *5(4)*, 477-495. doi.org/10.1016/S1469-0292(03)00040-2.

Heppner, P. P., & Peterson, C. H. (1982). The Development and Implications of a Personal Problem-Solving Inventory. *Journal of Counseling Psychology*, *29(1)*, 66-75. doi:10.1037/0022-0167.29.1.66.

Hormozi nezhad, M., M. Shehni Yeylagh, M., & Najarian, B. (2000). The relationship between self-esteem, social anxiety, perfectionism and assertiveness of shahid chamran university undergraduate students. *Psychological Achievements*, 7(2), 29-50. doi: 10.22055/psy.2000.16455

Inderbitzen, H. M., & Foster, S. L. (1992). The Teenage Inventory of Social Skills: Development, reliability, and validity. *Psychological Assessment, 4*(4), 451-459. doi.org/10.1037/1040-3590.4.4.451.

Inglesa, C. J., Hidalgoa, M. D., Mendeza, F. X., & Inderbitzen, H. M. (2003). Teenage Inventory of Social Skills: reliability and validity of the Spanish translation. *Journal of Adolescence, 26(4),* 505-510. doi.org/10.1016/S0140-1971(03)00032-0.

Karasel, N., Ayda, O., & Tezer, M. (2010). The relationship between mathematics anxiety and mathematical problem solving skills among primary school students. *Procedia-Social and Behavioral, 2(2),* 5804-5807. doi.org/10.1016/j.sbspro.2010.03.946

Khakpour, N., **Mohamadzadeh Edmelaie**, R., **Sadeghie**, J., & **Nazoktaba**, H. (2021). The Effectiveness of Cognitive-Social Problem Solving Skills Training on Emotional Control of Female Adolescents with High Risk Behaviors. *IJPN*, 9(1), 78-88. URL: http://ijpn.ir/article-1-1734-en.html

Khodakhast, J., & Garmaroudi, G. (2019). The effect of life skills training on social and coping skills, and aggression in high school students. *Novelty in Biomedicine, 7(3),* 121-129. doi.org/10.22037/nbm.v7i2.21256.

Khosravi, F., & Aghajani, T. (2019). The effectiveness of psychological capital of adolescents. *Journal of Excellence in Counseling and Psychotherapy*, 8(29), 13-27.

Kourmousi, N., Xythali, V., Theologitou, M., & Koutras, V. (2016). Validity and Reliability of the Problem Solving Inventory (PSI) in a Nationwide Sample of Greek Educators. *Social Sciences, 5(2),* 25. doi.org/10.3390/socsci5020025.

Larrauri, C., Chirino, R. & Loreenzo, J. (2009). Determining the efficacy of a high-school life skills programme in Huancavelica, Peru. *Revista de Salud Pública, 11(2),* 169-181. doi: 10.1590/s0124-00642009000200002.

Lee, B., & Lee, Y. (2020). study examining the effects of a training program focused of problem- solving skills for young adults. *Thinking Skills and Creativity, 37,* 100692. doi:10.1016/j.tsc.2020.100692.

Lee, M. J., Chiwu, W., Chieh Chang, H., Chin, H. J., Shan Lin, W., Feng, J. Y. & Lee, T. S. (2020). Effectiveness of a school-based life skills program on emotional regulation and depression among elementary school students: A randomized study. *Children and Youth Services Review, 118,* 10546. doi.org/10.1016/j.childyouth.2020.105464.

Livarjani, SH., & Gffari, S. (2010). The Investigation of relationship between emotional intelligence and Social Skills with the educational progress of the second- grade light school Students in Tabriz, 2009-2010. *Journal of Instruction and Evaluation*, 3(9), 71-88.

Maddah, D., Saab, Y., Safadi, H., Farraj, N. A., Hassan, Z., Turner, S., Echeverri, L., Alami, N. H., Kababian-Khasholian, T., & Salameh, P. (2021). The first life skills intervention to enhance well-

[DOR: 20.1001.1.25884395.2023.5.1.10.7]

[DOI: 10.52547/ieepj.5.1.135]

being amongst university students in the Arab world: 'Khotwa' pilot study. *Health Psychology Open*, 1–14 .doi.org/10.1177/20551029211016955.

Mehri Nejad, S. A., sadri, N., Ramezan Saatchi, L., & Ghafari Z.(2019).The effectiveness of life skills training on self-esteem and parent-child conflict among first-grade secondary school girl students in Tehran. *New Thoughts on Education*, 15(1), 187-206. doi: 10.22051/JONTOE.2019.20838.2252

Mirzei, S. H., & Hasani, J. (2015). Effect of a course of life skills program training on the adolescents of interpersonal problems. *Journal of Educational Research*, 10(3), 129-146.

Modanloo, M., Okhli, M., Zaman Kamkar, M., Abdollahi, H., Manouchehri, M., & Falsafi, L. (2020). The effect of life skill training on self-esteem and locus of control. *Arch Pharma Pract*, 11(4):119-24.

Mohammadzadeh, M., Awang, H., & Shahr, H. K. (2020). Improving coping mechanisms of Malaysian adolescents living in orphanages through a life skills education program: A multi-center randomized controlled trial. *Asian Journal of Psychiatry*, 48. doi:10.1016/j.ajp.2019.101892

Mohammadzadeh, M., Awang, H., Shahar, H. K., & Ismail, S. (2017). The effects of a life skills-based intervention one emotional health, self-esteem and coping mechanisms in Malaysian institutionalized adolescents: protocol of a multi-center randomized controlled trial. *International Journal of Educational Research, 83*, 32-42. doi:10.1016/j.ijer.2017.02.010.

Murphy, V., Felgoise, S. H., Walsh, S. M., & Simons, Z. (2008). Problem solving skills predict quality of life and psychological morbidity in ALS caregivers. *Amyotrophic lateral sclerosis, 10(3)*,147-153. doi: 10.1080/17482960802245007.

Nangia, A. (2019). Effectiveness of life skills training program on assertiveness, stress management and interpersonal communication skills of adolescents in rural area. *International Journal of Multidisciplinary, 4(6)*, 331-334.

Nasheeda, A., Abdullah, H. B., Krauss, S. E., & Ahmed, N. B. (2019). A narrative systematic review of life skills education: effectiveness, research gaps and priorities. *International Journal of Adolescence and Youth, 24(3)*, 362-379. doi.org/10.1080/02673843.2018.1479278.

Peter, H., Sharada, S., Klasssen, A. C., Robinson, E. B., & Mccarth, M. (2006). A problem solving Approach to Nutrition Education and Counseling. *Journal of Nutrition Education and Behavior, 38(4),* 254-258. doi: 10.1016/j.jneb.2006.01.005.

Pinar, S E., Yildirim, G., & Sayin, N. (2018). Vestigating the psychological resilience, self-confidence and problem-solving skills of mildwife candidates. *Nurse Education Today, 64,* 144-149. doi: 10.1016/j.nedt.2018.02.014.

Radmehr, F., & Hosseinkhanzadeh, A. A. (2018).The Role of Problem Solving Skills and Self-efficiency in explaining the High Risk Behaviors of Students. *J Child Ment Health*, 5 (3), 157-169.

Rahbari, N., Babapour, J., & Sabourimoghaddam, H. (2019). The Effectiveness of problem-solving training and assertiveness in attitude change towards substance abuse among adolescent girls. *Etiadpajohi*, 12 (48), 11-26.

[DOR: 20.1001.1.25884395.2023.5.1.10.7]

[DOI: 10.52547/ieepj.5.1.135]

Sánchez-Hernando, B., Juárez-Vela, R., Antón-Solanas, I., Gasch-Gallén, Á., Melo, P., Nguyen, T. H., Martínez-Riera, J. R., Ferrer-Gracia, E., & Gea-Caballero, V. (2021). Association between Life Skills and Academic Performance in Adolescents in the Autonomous Community of Aragon (Spain). *International Journal of Environmental Research and Public Health*, *18(8)*, 4288. https://doi.org/10.3390/ijerph18084288.

Sheivandi Cholicheh, K., Nafar, Z., Hasanvand, F., & Musavi, A. (2021). The effectiveness of life skills training (problem solving and decision making) on teacher-student relationships, academic buoyancy, and academic optimism in elementary sixth grade male students. *Journal of Applied Psychological Research*, 11(4), 47-67. doi: 10.22059/japr.2021.300406.643483

Sheykholeslami, A., Ghamari Kivi, H., & Fayazi, M. (2021). The effectiveness of life skills training on resilience in students with addiction readiness. *Etiadpajohi*, 14 (58) :11-30. doi: 10.29252/etiadpajohi.14.58.11.

Singla**,** D. R., Waqas, A., Hamdani, S. U., Suleman, N., Zafar, S. W., Huma, Z. E., Saeed, K., Chiara Servili, C., & Rahman, A. (2020). Implementation and effectiveness of adolescent life skills programs in low- and middle-income countries: A critical review and meta-analysis. *Behaviour Research and Therapy*, *130*, 103402 .doi.org/10.1016/j.brat.2019.04.010.

Taramian, F., Mahjooi, M., & Fathi, T. (2005). Life skills, teachers guide.Tehran: Bargh Nafis Publications**.**

Tiwari, P., Naik, P. R., Nirgude, A. S., & Datta, A. (2020). Effectiveness of life skills health education program: A quasi-experimental study among school students of South India. *Journal of Health Promotion and Education*, 9, 336. doi**:** 10.4103/jehp.jehp-564-20.

Velasco,V., Cominelli, S., Scattola, P., & C Celata, C. (2021). Life skill education at the time of COVID-19: perceptions and strategies of italian expert school educators, *Health Education Research*, 36(6), 615–633. doi.org/10.1093/her/cyab037.

Yarahmadiyan, N., Akhavan, M., & Khadmi, M. (2013). Effectiveness of life skills training on social competence of gril students. *strategic studies on youth and sports*.12(20), 111-124.

[DOR: 20.1001.1.25884395.2023.5.1.10.7]

[DOI: 10.52547/ieepj.5.1.135]