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RESEARCH ARTICLE

The effectiveness of life skills training on the quality of life of mothers of children with hearing impairment

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Abstract

Background and Aim: Hearing impairment is one of the common disabilities quality of life of mothers of children with hearing impairment are often lower than others. This study aimed to evaluate the effects of life skills training (LST) on the quality of life of mothers who have children with hearing impairment.

Methods: An experimental research method (pretest, post-test with control group design) was followed in this study. The statistical population comprised all mothers who have children with hearing impairment and lived in Shiraz, Iran. Of them, 36 mothers were selected through purposeful sampling method and randomly divided into two 18-member groups (experimental and control groups). The pretest was conducted on both groups. LST program was performed in the experimental group in 12 sessions, and the control group did not receive any intervention. Post-test was conducted on both groups. The quality of life scale (QOLS) was used to assess each mother's quality of life.

Results: Life skills training causes significant improvement in the mean scores of the mothers' physical health, mental health, social relationships and ultimately quality of life in the experimental group ($p<0.001$).

Conclusion: According to this study, LST is effective in improving the quality of life of mothers who have children with hearing impairment. This program so it can be considered as a useful tool in this field**.**

Keywords: Life skills training; quality of life; children with hearing impairment

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Introduction

Hearing loss is a prevalent and disabling chronic condition that can impair communication, quality of life, and health [1]. Becoming aware of their child's hearing impairment, mothers show different reactions. Some parents may feel disappointed, whereas others become suspicious [2]. The sources of this stress may be concerns over the future of the child, his or her behavioral problems and disabilities, and how the child will cope with future problems. Other concerns are related to changes in family relationships, heavy economical costs, concerns over non-fulfillment of dreams, loss of recreation, compassionate behaviors of other people or negative attitudes of society, lack of information, restricted access to services and facilities or conflicts about rebreeding [3].

All these concerns exert extra psychological pressure on parents and affect their personal lives. Based on systemic approaches, family is not a static organization, but a dynamic one in which the members influence each other. Thus, the presence of a disabled child and its related stress can affect the whole family, and their interactions and relationships with the hearing-impaired child. The unwise resolution of these unpleasant effects can impose irreparable psychic damages on both parents and other family members, especially the one with hearing loss [4].

In addition, having a child with hearing impairment can impact the quality of life of the parents. Quality of life is a multidimensional construct that includes evaluation of at least four main aspects of emotional well-being, physical health, social function, and spirituality [3]. Dempsey et al. considered the quality of life as a social, emotional, psychological, and physical function [5]. They reported that stress evaluation is the strongest predictor variable of quality of life of parents who have children with attention deficit hyperactivity disorder. Botvin and Kantor argued that the effects of any stressor event are based on how people deal with that, thus appropriate coping skills to maintain family and quality of life of every member of the family is essential. Parents of disabled children can control and manage their condition through appropriate training and learning programs so as to maintain emotional stability in their lives. One of these programs is life skills training (LST), which can lead to appropriate changes in attitudes and values, strengthen behaviors toward health problems and barriers, promotes mental health [6], and enables people to cope with difficult life situations [7]. Studies on the effectiveness of teaching life skills on mental health have indicated that training these skills impacts the quality of life of individuals. For example, Malouff et al. [8] showed that teaching life shills had significant effects on physical and mental health problems of individuals. Kazemi et al. [9] ran a training program to support parents who had children with disabilities. Their results showed that LST was a beneficial intervention for health and lifestyle problems and could ameliorate the depressed mood. Yankey and Biswas also reported that LST was effective in reducing stress in young Tibetan refugees [10].

The results of multivariate analysis of variance revealed that LST in students with mathematical problems had positive effects on social competence and its components. Pakdaman Savoji and Ganji [11] found that there was a significant effectiveness of LST program on the mental health of students, also the study girls received more benefit from the program than boys.

Based on the theoretical foundation and the mentioned research background, it seems that one way to reduce stress of mothers of children with hearing impairment is to help them develop skills needed to create a satisfying life. One of the achievements in this field is LST, which is inscribed by WHO as an approach to prevent and improve the mental health of the population. This increases the individuals' ability in efficient adaptation to environment and facing challenges [12]. Therefore, this study aimed to evaluate the effect of LST on the quality of life of mothers who have children with hearing impairment.

Methods

This study had a quasi-experimental design with pretest and post-test along with a control group. The study population comprised mothers of children (age 2 to 8 years) with hearing impairment who visited rehabilitation centers in Shiraz, Iran. Sampling was performed using the purposeful convenience sampling method. In the beginning, questionnaires related to the quality of life components were randomly distributed among 100 mothers in the rehabilitation centers. After collecting the questionnaires and scoring them, 36 mothers, whose quality of life scores were below average and were willing to participate in the second phase of the study with LST workshops, were selected. They were randomly placed into experimental group (n=18) and control group (n=18). The study instrument was the WHO quality of life short scale (WHOQOL–BREF).

Table 1. Programs content of life skills training (LST) [15]

Session one: Getting to know each other and establish a good relationship, descripting the workshops laws, life skills training, introducing the life skills and quality of life, the definition of quality of life and improve the quality of life.
Session two: Stressors coping skills: definition of stress, coping skills and effective factors related to deal with stressors, coping types [problem-focused, emotion-focused and inconsistent-focused coping] and strategies against stress.
Session three: Coping with emotions skills: introducing the skills to deal with emotions. In this session, the main discussion was about the emotions, all kinds of emotions and their impact on social relationships and unpleasant emotions control strategies and to train these skills, mothers were asked to share their experiences of family member's emotional responses during a pleasant and unpleasant event and describe their sense in an emotional situations.
Session four: Problem solving skills: during this session, mothers became familiar with problem-solving skills. Also, about the ability to solve problems or cope with the problem and its impact on mental health promotion were discussed. The process of problem solving [problem type, finding different solutions and making decisions about the best solution was spoken and in this regard, some assignments were devolved to mothers].
Session five: Decision-making skills: during the session, about the importance of decision-making skills to achieve the objectives, methods of decision-making and its different stages and critical situations of life were discussed. Then mothers were given assignments.
Session six: Self-awareness: during this session, the definition of self-awareness, self-awareness component, contributing factors in the growth of self-awareness and self-growth obstacles discussed. Then assignments were given to mothers.
Session seven: Empathy skills: during the session, about the definition of empathy, empathy skills, prerequisites for empathy, ways to achieve empathy and other empathy-related skills discussed and assignments were given to mothers.
Session eight: Effective communication skills: during the session, about the importance of effective communication in human flourishing and communication barriers discussed and mothers were asked to describe an experience about the barriers to communication and share them with each other.
Session nine: Interpersonal communication skills, interpersonal skills and its importance in mental health, social communication skills, interpersonal relations and the establishment of security, peace, and respect were discussed in this session, and then mothers were given assignments.
Session ten: Conflict resolution skills [critical thinking]: this meeting was about the conflicts in the personal lives and their preventing strategies and then, mothers were given assignments.
Session eleven: Creative thinking skills: creative thinking was defined in this meeting and mothers were trained to express material thinking and creative thinking and how to raise and nurture their creative thinking.
Session twelve: Summary of educational issues.

The scale has 26 questions that assess four domains of quality of life: physical health, mental health, living environment, and relationships with others. Nejat et al. have reported descriptive reliability coefficient and internal consistency of the instrument as 87.0 and 84.0, respectively, in a sample of 302 students from Shiraz University [13]. Pretest reliability coefficient was obtained as 0.67, and the result of the concurrent validity of the scale of public health was satisfactory. Moreover, their pilot study showed that the Persian-translated questionnaire was valid and reliable [13]. Factor analysis of the Iranian version led to three subscales, unlike the original version, which had four subscales, as living environment and relationships with others together make up a subscale [14]. The LST program consisted of skills related to group decision-making, problem-solving, effecttive communication, interpersonal relationship, self-awareness, empathy with others, coping with emotions and stressors, critical thinking, and creative thinking. Both groups completed WHOQOL–BREF, and then, the 12-step model of LST (Table 1) was taught to the experimental group in 12 weekly sessions of 1.5 hours each. In the end, both groups were asked to complete the WHQOL–BREF scale.

The demographic data included mother's education (elementary, cycle, diploma, associate,

Table 2. Distribution of absolute and relative frequencies of demographic characteristics in both experimental and control groups

		Group				
		Experimental		Control		
Variable		N	Percent	N	Percent	p
Mother's education	Elementary	2	11.1	2	11.1	0.79
	Cycle	5	27.8	5	27.8	
	Diploma	5	33.3	6	33.3	
	Associate	5	11.1	2	11.1	
	Bachelor of Science	1	11.1	2	11.1	
	Master of Science and higher	0	5.6	1	5.6	
Employment status	Employed	1	5.6	4	22.2	0.15
	Housewife	17	94.4	14	77.8	
Gender	Male	11	61.1	13	72.2	0.49
	Female	7	38.9	5	27.8	
Birth order	First	10	55.6	14	72.2	0.77
	Second	5	27.8	1	11.1	
	Third	3	16.7	3	16.7	
Type of pregnancy	Programmed	12	66.7	13	72.2	0.32
	Undesirable	6	33.3	5	27.8	
Income	Low	8	44.4	5	27.8	0.24
	Iintermediate	8	44.4	9	50.0	
	High	2	11.1	4	22.2	
The mean age of mothers		18	29.05	18	29.66	
The mean age of children		18	4.55	18	5.25	

bachelor, and master and higher), employment status (employed/housewife), gender (male/female), birth order (first, second and third), type of pregnancy (programmed/undesirable), income level (low, intermediate, and high), age of mothers, and age of children. The demographic data of both groups were compared using the Chi-square and independent t-test. To determine whether the obtained changes are statistically significant, the analysis of covariance was used. Before regression analysis of covariance, homogeneity of variances (Leven test) were conducted. The normal distribution of the dependent variables was confirmed with Kolmogorov-Smirnov test.

Results

There were no significant differences in mothers

Table 3. The mean and standard deviation of quality of life in control and experimental groups

		Mean (SD)	
Variable	**Group**	**Pretest**	**Post-test**
Quality of life	**Experimental**	65.88 (12.30)	74.05 (15.50)
	Control	74.05 (15.14)	73.33 (15.81)

education, employment status, birth, order, type of pregnancy, income level, age of mothers, and age of children between groups ($p>0.05$, Table 2).

As it can be seen in Table 3, there were differences between two groups in pretest and post-test.

Results of covariance analysis after statistically controlling for the effect of pretest showed statistically significant difference in test scores between the experimental and control groups in physical health ($F=1.37$, $p<0.001$), mental health ($F=2.33$, $p<0.001$), social relationships ($F=1.66$, $p<0.001$) and finally quality of life ($F=35.67$, $p<0.001$). Thus, the intervention was effective in improving the quality of life of mothers who have children with hearing impairment.

Discussion

Our results showed that the mean score of quality of life in dimensions of physical health, psychological health, social relationships, and environmental health increased in the experimental group. The result is consistent with the results of previous studies [9-12,16-19]. It seems that, by making changes in self-awareness, understanding feelings and thoughts, communication styles, behavioral tendencies and feelings of self-efficacy and self-sufficiency in the mothers, the LST program can lead to behavioral changes and ultimately, enhance their quality of life. In addition, the results showed that LST had a significant impact on the quality of life in the experimental group.

This intervention has increased physical activity and physical health and reduced physical pain in the experimental group. This finding is consistent with the findings of other studies [20-23]. It was also found that LST reduced psychological problems and increased psychological health of participants. This result is in line with that of other studies [24-26]. To explain these results, it can be said that, at first, LST program topics such as expecting opportunities, attending imbalances, recognizing feelings, classification issues, and peace of mind, has led to the reduction of negative thoughts, worries, and negative emotions and improvement in mental and physical health [23]. In fact, mothers in the experimental group received benefits from LST such as in problem-solving skills, decision-making and anger management, effective communication, and the like and learned to deal more efficiently with personal, social, and environmental problems after better defining and recognizing the moot points. Several studies have shown that LST is effective in improving mental and physical health, strengthening self-confidence and interpersonal relationships, and preventing mental, behavioral, and social problems [27]. In LST, new techniques for each skill are introduced and exercised by participants for an immediate, positive, and significant impact. This effect is useful even if it is short-term. Practical training ensures the participant of his/her mood changes by repetition and practice. Increasing in the reliability of these techniques encourages repetitious practice, and eventually the more usefulness of this method [20]. Since all items of life skills such as self-awareness, empathy skills, effective communication skills, coping skills, anger and aggression management skills,

problem-solving, and so on are interpersonal skills that one experiences through interactions, it seems that group therapy is the most effective method to improve them [28]. In other words, the members of a group through their interactions, self-revelation, support, empathy, and common pain can achieve wider insight and understanding and better adaptation to their problems. Group provides an opportunity for its members to meet in an atmosphere free of judgment, explore their inner space, and focus on experience. In addition, a person who has difficulty in solving the problem probably has no social and environmental protection; such a person becomes disabled in problem solving because of deprivation from environmental protection [29]. Therefore, in such cases, LST can enable the application of effective tactics to deal with everyday problems. In other words, life skills are important coping strategies that can increase people's personal and social developpment and reduce their physical and mental problems [30]. Taking part in life skills courses was also effective in increasing maternal environmental and social relations. Sorensen et al. [31], Chen [32], and Robinson [33] confirmed the findings of this research. They reported that mothers who received LST, learned communication skills very well along with a wide range of skills and social strategies, including dialogue skills, courage and ability to listen, as well as willingness to listen to others, and respect for the others' feelings and opinions which are very important in social interactions and interpersonal relationships. Furthermore, these trainings often make changes in the lifestyles of individuals. However, one must be careful when generalizing the results of this study because our study had certain limitations, including low statistical pop-ulation and limited number of sessions. It is suggested that other family members, especially fathers be included in future studies.

Conclusion

People who receive LST may have strong emotional support network. They will also deal more efficiently with problems due to their increased tolerance and potential in problem solving.

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