Original Article

Effectiveness of Health-Centered Life Skills Training on Health-Related Quality of Life in Mothers with Blind Children: A Randomized Controlled Interventional Study

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Abstract

Background: Child visual impairment is one of the disabilities that influence the Health Related Quality of Life (HRQOL) of mothers. Therefore, it is necessary to establish appropriate interventions for enhancing their HRQOL. This study was conducted to assess the efficiency of a Health-Centered Life Skills Training (HCLST) program on the HRQOL of mothers with visually impaired children aged 7 to 12 years. **Materials and Methods:** The present study was a nonblinded, randomized, controlled trial on 52 mothers with visually impaired children studying at an educational complex. The participants were selected using convenience sampling method and were randomly divided into intervention and control groups using balanced block randomization method. The intervention group participated in a HCLST program, but the control group did not. Data were collected using a demographic questionnaire and the 36-item Short Form (SF-36) Health Survey, which were completed by the participants of both groups before, immediately after, and 3 months after the intervention. **Results:** There was no significant difference between the intervention and control groups in terms of total mean score of HRQOL before the intervention; however, it increased significantly immediately ($Z = -5.73$, $p < 0.001$) and 3 months ($Z = -5.84$, $p < 0.001$) after the intervention in the intervention group. A statistically significant increase was observed in the mean scores of the two main domains of the HRQOL, which were physical health ($Z = -3.61$, $p < 0.001$) and emotional health ($Z = -6.19$, $p < 0.001$) domains, only in the intervention group. **Conclusions:** HCLST program can be used as an effective technique for the improvement of the HRQOL in mothers with blind children.

Keywords: *Life-skills, mothers, quality of life, training, vision disorders*

Introduction

Visual impairment is among the disabilities that affect the Quality of Life (QOL) of individuals and their families. With the birth of a blind child parents, regardless of their period of life, feel the difference between their child and healthy children, and consequently, engage in negative emotions constantly.[1,2] When their children reach school age, the parents of the blind children face many challenges.[3,4] It has been observed that the mothers of these children have experienced fear, anger, and guilt, or have sometimes become an extreme supporter of their child, and have stress in various psychological and physical dimensions.[5,6] The total of these factors can reduce their Health-Related Quality of Life (HRQOL). Aras *et al*. reported a lower HRQOL in the parents of children with speech and hearing impairments compared to those with healthy children.[7] In another study by Alwhaibi *et al*., with the aim of comparing the QOL of mothers of children with and without disabilities, it was found that mothers of disabled children required more social support and expert advice for the improvement of their QOL.[8]

Given that, the psychological state of parents, especially mothers, is directly and indirectly influenced by the behavior and personality of their children and the supporting facilities of the environment in which they live, it seems very important to determine the HRQOL of mothers of blind children and whether the use of educational programs can make a difference in their QOL. A few interventional studies have specifically targeted mothers of visually

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impaired children. A study by Platje *et al*. showed that video-feedback intervention for the promotion of positive parenting increases the self-efficacy of parents of visually impaired children in supporting and comforting their child.[9] In another study by Khooshab *et al*., parenting stress decreased significantly through Life Skills Training (LST) in mothers of visually impaired children.[10] According to a study by Vonneilich *et al*., as high burden of care and high health risks are have a positive correlation in parents of disabled children, it is necessary to design suitable interventions to promote all domains of their HRQOL.[6] The present study is the first study which was conducted on the effectiveness of a health-centered LST interventional program aiming at improving the HRQOL level of mothers of blind children.

According to the definition provided by the World Health Organization (WHO), life skills are abilities for adaptive and positive behavior, which enable individuals to effectively deal with the demands and challenges of everyday life, and are classified into three broad categories of thinking skills, social skills, and emotional skills. The United Nations Children's Fund (UNICEF), United Nations Educational, Scientific and Cultural Organization (UNESCO), and WHO have listed self-awareness, critical thinking, creative thinking, decision-making, problem solving, effective communication, interpersonal relationship, empathy, coping with stress, and coping with emotion as the 10 main life skills. Health Centered Life Skills Training (HCLST) program is a new approach to LST that focuses directly on individual's physical and psychological health, health beliefs, self-care behaviors, and healthy lifestyle, and links these concepts to the 10 main components of LST. Therefore, it can be a comprehensive training program for enhancing health in the community. HRQOL has two main domains of physical and emotional health that are directly related to the components of the HCLST program.

The purpose of this study was to investigate the effectiveness of the HCLST program on HRQOL in mothers with visually impaired children. We hypothesized that HCLST can help mothers to enhance their HRQOL through learning 10 life skills in addition to a healthy lifestyle, in accordance with the culture of the target population as one of the important roles of community health nurses in educating health factors to the vulnerable groups in community.

Materials and Methods

This nonblinded, randomized, controlled trial approved by Shiraz University of Medical Sciences, Shiraz, Iran, started in 2014 and ended in 2015. The study was registered in the Iranian Registry of Clinical Trials with the registration number of IRCT201405147531N6. The participants were selected from among the mothers who had enrolled their blind children in Shoorideh Shirazi Educational Boarding Complex for the Blind, using convenience sampling method. Out of the total number of students enrolled in this center (n = 92), the mothers of 40 students were not included in the study based on the exclusion criteria; not living in Shiraz (35 individuals), attending other LST courses (1 person), and taking psychiatric drugs under the supervision of a physician (4 people). The remaining 52 mothers were entered into the study and randomly divided into intervention and control groups (26 in each group) using balanced block randomization (block size = four individuals).

The inclusion criteria were having at least one blind child aged 7 to 12 years, residing in Shiraz, having the ability to attend the training sessions and complete the questionnaire, having no history of participation in LST courses, and having no mental/psychiatric illness based on the doctor's diagnosis or taking no psychiatric drugs (based on the mother's self-report). The exclusion criteria included missing more than 2 sessions of the intervention, and not being willing to continue to contribute to the research.

Data were gathered using a demographic questionnaire, a checklist of the clinical characteristics of blind children, and the Short Form (SF-36) Health Survey. The demographic questionnaire included questions about the mother's age, marital status, education level, occupation, and history of using psychiatric drugs, number of children, number of blind children, and history of taking part in LST programs.

The clinically blind child characteristic checklist included questions about the blind child's sex, age, educational level, birth rank, and type, severity, and cause of blindness. The SF-36 Health Survey examines 8 separate aspects of health in 8 subdomains and 2 main physical and emotional health domains.[7] The physical health domain includes physical functioning, physical role limit, bodily pain, and general health. The emotional health domain includes emotional role limit, energy and fatigue, emotional wellbeing, and social functioning. The questioner is appropriate for self-administration by people aged 14 years or more. All 36 questions are answered based on a Likert scale, and the total score of the questionnaire ranges from 0 to 100. Montazeri *et al*. evaluated its reliability using internal consistency and showed that the Cronbach's alpha coefficient of all eight scales of the SF-36 ranged from 0.77 to 0.90.[11] Its validity was estimated through known groups' comparison and convergent validity.[11]

After obtaining informed written consent forms from the participants, the questionnaire was distributed among them. The questionnaire was completed by two groups before the intervention, after five consecutive 2-h educational sessions in 5 weeks and 3 months after the intervention. A team of faculty members of Shiraz Nursing College and a MS community nursing student implemented the education program. The objectives and content of the sessions are presented in Table 1, which are derived from the guidelines of the WHO and UNICEF.[12] Training methods and tools

Table 1: Contents of the training sessions

Sessions	Main Titles
First	The concept of self-awareness, emotional intelligence, self-esteem, self-knowledge exercises, and achieving inner peace
Second	The mechanism of anger, the effect of anger on physical and mental health, Exercises to counteract negative emotions and control anger
Third	Stress and its types, impacts of stress on physical and mental health, stress management exercises, healthy lifestyle
Forth	Decision-making skills, problem solving, critical thinking, creative thinking, and using them in parenting blind child
Fifth	Effective communication, empathic relationships, how to have an effective and empathic relationship with a the blind child

used included lectures, group discussions, PowerPoint slides, video projectors, role playing, and booklets and CDs. The participants before the intervention completed the questionnaires, immediately after the intervention, and 3 months after the intervention. Because of the possibility of information being exchanged between the control and intervention groups, the intervention group was asked not to transfer the content to the control group.

Data were analyzed in SPSS software (version 21, IBM Corporation, Armonk, NY, USA). Descriptive analysis statistical methods including mean, standard deviations, and frequency were used to present data. As each group contained 26 participants, the nonparametric Mann–Whitney test was used to compare mean scores of HRQOL and its two main domains of physical and mental health between the groups. Analysis of Repeated Measure test was also used to compare mean scores in each group through time. For demographic data, Chi-square, Fischer's exact test, and Mann-Whitney test were used. The statically significance level was set at $\alpha < 0.05$.

Ethical considerations

The participants were provided with explanations on the study objectives and informed written consents were obtained from them. They were ensured of the confidentiality of their information and the topics were presented to the control group at the end of the study. The ethics committee of Shiraz University of Medical Sciences approved the study on the target population in 2014 (the ethics committee approval code: CT93767006).

Results

The mean (SD) age of the mothers was 34.85 (6.20) years and 35.69 (6.25) years and mean (SD) age of the children was 9.08 (1.52) and 8.85 (1.43) in the intervention and control groups, respectively. Fischer's exact test and Chi-square test showed no significant difference between the intervention and control groups in terms of demographic qualitative data [Table 2]. Independent *t*-test indicated that the two groups were not different in terms of the child and mothers' mean age.

There was no significant difference between the groups in terms of total mean score of HRQOL before the intervention; however, it increased significantly immediately ($Z = -5.73$, $p < 0.001$) and 3 months ($Z = -5.84$, $p < 0.001$) after the intervention in the intervention group. Such statistically significant enhancement in the mean scores of HRQOL was observed in both physical health ($Z = -3.61$, $p < 0.001$) and emotional health ($Z = -6.19$, $p < 0.001$) domains.

Comparison of the two groups using Mann-Whitney test showed that total scores of HRQOL and its domains were not significantly different before the intervention, but were significantly different immediately and 3 months after the intervention ($p < 0.001$) [Table 3]. Intragroup comparison using Analysis of Repeated Measure tests showed that the mean total scores of HRQOL and its domains (physical and emotional health) changed significantly immediately and 3 months after the intervention in the intervention group ($p < 0.001$). However, they did not change significantly in the control group. After the intervention, the mean total HRQOL in the intervention group increased significantly ($F_{1,25} = 3951.96$, $p < 0.001$) compared to the control group ($F_{1,25} = 691.37$, $p = 0.52$). Moreover, the mean score of the physical health domain increased significantly in the intervention group ($F_{1,25} = 1376.84$, $p < 0.001$) compared to the control group ($F_{1,25} = 401.57$, $p = 0.49$). The mean score of the emotional health domain also increased significantly in the intervention group ($F_{1,25} = 5951.84$, $p < 0.001$) compared to the control group ($F_{1,25} = 469.99$, $p = 0.78$).

Discussion

The results indicated an increase in the mean total score of HRQOL in the intervention group immediately and 3 months after the intervention. However, no significant difference was found in the control group at those times. This result is in line with that of a study by Khooshab *et al*. that showed LST can reduce the parenting stress score of mothers of blind children.[10] Furthermore, it is consistent with the researches by Abbasi *et al*.[13] and Kakavandi *et al*.[14] on the effect of LST on the mean score of QOL of the mothers of children with down syndrome and deaf children, respectively. This finding is also consistent with that of a study by Sherwood *et al*. on the effectiveness of these training sessions on the QOL of patients with heart failure.[15] Generally, the training process changes the parents' attitudes, beliefs, and habits; Grey *et al*. showed that these concepts changed through enhancing coping skills of parents of diabetic children through coping skills training.[16]

The results of the present study showed that the training program has influenced the physical and

Table 2: Frequency distribution of demographic variables in the intervention and control groups

Variable		Intervention Group N (%)	Control Group N (%)	*p**
Mothers' marital status	Married	25 (96.20)	24 (92.30)	>0.99
	Divorced	1 (3.80)	2 (7.70)	
Mothers' level of education	Primary	5 (19.30)	4 (15.40)	0.56
	Lower secondary	7 (26.90)	6 (23.10)	
	Upper secondary	6 (23.10)	7 (26.90)	
	Diploma	7 (26.90)	7 (26.90)	
	University degree	1 (3.80)	2 (7.70)	
Mothers' job	Occupied	2 (7.70)	2 (7.70)	>0.99
	Housewife	24 (92.30)	24 (92.30)	
Number of all the children in the family	≤3	20 (76.90)	19 (73.10)	0.75
	>3	6 (23.10)	7 (26.90)	
Number of blind children in the family	1	23 (88.50)	23 (88.50)	0.54
	≥2	3 (11.50)	3 (11.50)	
Gender of blind child	Male	14 (53.80)	14 (53.80)	>0.99
	Female	12 (46.20)	12 (46.20)	
Cause of blindness	Congenital	12 (46.20)	16 (61.50)	0.26
	Noncongenital	14 (53.80)	10 (38.50)	
Birth rank of the blind child	First-born	14 (53.80)	10 (38.50)	0.27
	Second or more	12 (46.20)	16 (61.50)	
Severity of blindness	Totally Blind	15 (57.70)	11 (42.30)	0.40
	Severe visual impairment	6 (23.10)	7 (26.90)	
	Moderate visual impairment	5 (19.20)	8 (30.80)	

*Chi-square test

Table 3: Intergroup comparison of intervention and control groups in terms of mean total score of HRQOL and its domains before, immediately after, and 3 months after the intervention

Variable	Time	Mean (SD) Group		Z	Mann–Whitney U	*p*
		Intervention	Control			
Total health related quality of life	Before the intervention	49.16 (8.85)	51.91 (11.01)	−1.00	283.50	0.32
	CI	(45.59, 52.74)	(47.46, 56.36)			
	Immediately after the intervention	79.35 (6.82)	51.44 (10.01)	−5.73	25.00	<0.001
	CI	(76.60, 82.11)	(47.40, 55.49)			
	3 months after the intervention	78.19 (6.38)	52.07 (9.95)	−5.84	19.00	<0.001
	CI	(75.62, 80.77)	(48.05, 56.09)			
Physical Health domain	Before the intervention	28.08 (6.42)	28.76 (7.77)	−0.20	327.00	0.84
	CI	(25.48, 30.67)	(25.63, 31.90)			
	Immediately after the intervention	34.12 (5.72)	28.23 (7.26)	−3.61	141.00	<0.001
	CI	(31.80, 36.43)	(25.30, 31.16)			
	3 months after the intervention	32.21 (5.34)	28.42 (7.15)	−3.91	124.50	<0.001
	CI	(33.05, 37.37)	(25.53, 31.31)			
Emotional Health domain	Before the intervention	21.10 (4.92)	23.15 (6.49)	−1.09	278.50	0.28
	CI	(19.11, 23.09)	(20.53, 25.77)			
	Immediately after the intervention	45.24 (2.96)	23.55 (5.78)	−6.19	0.00	<0.001
	CI	(44.04, 46,43)	(21.21, 25.88)			
	3 months after intervention	42.98 (4.24)	23.65 (5.46)	−6.13	3.00	<0.001
	CI	(41.27, 44.69)	(21.44, 25.85)			

HRQOL=Health-related quality of Life, SD=Standard deviation, CI=Confidence interval

emotional health (two main domains of HRQOL) of the participants, which is in line with the results of other studies and systematic reviews about the effectiveness of LST program.[17,18] Psychological training helps the parents use their resources and abilities to solve their problems effectively.[19,20] Seemingly, learning the skills

of self-awareness, controlling of negative emotions, and appropriate communicating techniques will increase the accountability of mothers regarding their self-efficacy and eventually their self-care skills. According to the study of Ramezani and Mazraeh, the LST program can result in happiness, life satisfaction, higher self-steam, social development, and emotional adjustment in different populations.[21] Each of these components can be an effective factor in the enhancement of the emotional and physical dimensions of the HRQOL.

According to several studies, training of skills such as self-awareness, coping with negative emotions, and stress management can lead to resilience in parents of children with chronic health conditions and disabilities, and LST can increase their psychological capacity.[22,23] The LST program can lead to an increase in the ability of individuals to meet their role expectations and face the difficulties of life in an effective and adaptive way[24,25]; thus, the parents' group training seems to be an effective intervention. The intervention group participants had similar problems (having a blind child); thus, they could use each other's experiences to solve their problems and find their strong and weak points.

Through acquiring effective communication skills and compatibility with emotions and empathy skills in LST, people learn to communicate more effectively with their family and manage their emotional states.[26] In acquiring critical thinking, creative thinking, problem-solving, and decision-making skills, one learns how to organize his/her thinking systematically to solve problems.[27] Sobhi-Gharamaleki and Rajabi have shown that these skills can positively affect one's mental health and self-esteem.[28]

The mean total score of HRQOL in the intervention group was significantly higher than in the control group 3 months after training, which indicates the persistence of the effect of training during this period. Therefore, it is recommended that this program be used in consultation centers and exceptional children protection organizations. There were two limitations in this study; the effect of individual characteristics of the participants on the level of learning and the way of completing the questionnaires.

Conclusion

The health-centered LST program improved HRQOL in mothers of blind children. This program may help them to face their problems more efficiently through enhancing their skills of physical and emotional self-care and self-control in most aspects of their life. Therefore, this program is introduced as an effective technique for the improvement of HRQOL in mothers of blind children. It is recommended that future studies be conducted with a larger sample size, in other parts of Iran, and in other family members of blind children (for example among fathers).

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Conflicts of interest

Nothing to declare.

References

1. Columna L, Rocco Dillon S, Norris ML, Dolphin M, McCabe L. Parents' perceptions of physical activity experiences for their families and children with visual impairments. Br J Vis Impair 2017;35:88-102.
2. Moghadam ZB, Ghiyasvandian S, Shahbazzadegan S, Shamshiri M. Parenting experiences of mothers who are blind in Iran: A hermeneutic phenomenological study. J Vis Impair Blind 2017;111:113-22.
3. Sakkalou E, Sakki H, O'reilly MA, Salt AT, Dale NJ. Parenting stress, anxiety, and depression in mothers with visually impaired infants: A cross-sectional and longitudinal cohort analysis. Dev Med Child Neurol 2018;60:290-8.
4. van den Broek EG, van Eijden AJ, Overbeek MM, Kef S, Sterkenburg PS, Schuengel C. A systematic review of the literature on parenting of young children with visual impairments and the adaptions for video-feedback intervention to promote positive parenting (VIPP). J Dev Phys Disabil 2017;29:503-45.
5. Kuriakose RK, Khan Z, Almeida DR, Braich PS. Depression and burden among the caregivers of visually impaired patients: A systematic review. Int Ophthalmol 2017;37:767-77.
6. Vonneilich N, Lüdecke D, Kofahl C. The impact of care on family and health-related quality of life of parents with chronically ill and disabled children. Disabil Rehabil 2016;38:761-7.
7. Aras I, Stevanović R, Vlahović S, Stevanović S, Kolarić B, Kondić L. Health related quality of life in parents of children with speech and hearing impairment. Int J Pediatr Otorhinolaryngol 2014;78:323-9.
8. Alwhaibi RM, Zaidi U, Alzeiby I, Alhusaini A. Quality of life and socioeconomic status: A comparative study among mothers of children with and without disabilities in Saudi Arabia. Child Care Pract 2018;11:1-19.
9. Platje E, Sterkenburg P, Overbeek M, Kef S, Schuengel C. The efficacy of VIPP-V parenting training for parents of young children with a visual or visual-and-intellectual disability: A randomized controlled trial. Attach Hum Dev 2018;20:455-72.
10. Khooshab E, Jahanbin I, Ghadakpour S, Keshavarzi S. Managing parenting stress through life skills training: A supportive intervention for mothers with visually impaired children. Int J Community Based Nurs Midwifery 2016;4:265-73.
11. Montazeri A, Goshtasebi A, Vahdaninia M, Gandek B. The short form health survey (SF-36): Translation and validation study of the Iranian version. Qual Life Res 2005;14:875-82.
12. World Health Organization, UNICEF. Skills for health: Skills-based health education including life skills: An important component of a child-friendly/health-promoting school. World

Health Organ Inf Ser 2003;1:3-66.
13. Abbasi S, Sajedi F, Hemmati S, Rezasoltani P. The effectiveness of life skills training on quality of life in mothers of children with down syndrome. Iran Rehabil J 2014;12:29-34.
14. Kakavandi K, Koohi R, Shojaee S, Movallali G, Norozali S. The effectiveness of life skills training on the quality of life of mothers of children with hearing impairment. Aud Vestibular Res 2017;26:34-40.
15. Sherwood A, Blumenthal JA, Koch GG, Hoffman BM, Watkins LL, Smith PJ, *et al*. Effects of coping skills training on quality of life, disease biomarkers and clinical outcomes in patients with heart failure: A randomized clinical trial. Circ Heart Fail 2017;10:10-34.
16. Grey M, Jaser SS, Whittemore R, Jeon S, Lindemann E. Coping skills training for parents of children with type 1 diabetes: 12-month outcomes. Nurs Res 2011;60:173-81.
17. Gerami S, Ahmadi S, Safat MB, Farsi F. Life skills training and its effectiveness: A systematic review. Mediterr J Soc Sci 2015;6:385-94.
18. Hsiao YJ. Pathways to mental health-related quality of life for parents of children with autism spectrum disorder: Roles of parental stress, children's performance, medical support, and neighbor support. Res Autism Spectrum Disord 2016;23:122-30.
19. Kim MJ, Doh HS, Hong JS, Choi MK. Social skills training and parent education programs for aggressive preschoolers and their parents in South Korea. Child Youth Serv Rev 2011;33:838-45.
20. Mohammadi A, Aghdam GA, Kiyani R, Sattarzadeh L. Investigating effect of life skills training on family functioning of epileptic people's in Tabriz. Procedia Soc Behav Sci 2011;30:2316-8.
21. Ramezani F, Mazraeh S. The effectiveness of life skills training on life satisfaction in patients with spinal cord injury. Clin Psychol Spec Educ 2018;7:135-45.
22. Todd S, Bromley J, Ioannou K, Harrison J, Mellor C, Taylor E, *et al*. Using group-based parent training interventions with parents of children with disabilities: A description of process, content and outcomes in clinical practice. Child Adolesc Mental Health 2010;15:171-5.
23. Mullins LL, Molzon ES, Suorsa KI, Tackett AP, Pai AL, Chaney JM. Models of resilience: Developing psychosocial interventions for parents of children with chronic health conditions. Fam Relat 2015;64:176-89.
24. Minjarez MB, Mercier EM, Williams SE, Hardan AY. Impact of pivotal response training group therapy on stress and empowerment in parents of children with autism. J Posit Behav Interv 2013;15:71-8.
25. Loren RE, Vaughn AJ, Langberg JM, Cyran JE, Proano-Raps T, Smolyansky BH, *et al*. Effects of an 8-session behavioral parent training group for parents of children with ADHD on child impairment and parenting confidence. J Atten Disord 2015;19:158-66.
26. Hosseinkhanzadeh AA, Yeganeh T. The effects of life skills training on marital satisfaction. Procedia Soc Behav Sci 2013;84:769-72.
27. Viola A, Taggi-Pinto A, Sahler OJ, Alderfer MA, Devine KA. Problem-solving skills, parent–adolescent communication, dyadic functioning, and distress among adolescents with cancer. Pediatr Blood Cancer 2018;65:e26951.
28. Sobhi-Gharamaleki N, Rajabi S. Efficacy of life skills training on increase of mental health and self esteem of the students. Procedia Soc Behav Sci 2010;5:1818-22.