



The effects of self-encouragement training on distress tolerance among the mothers of hospitalized children

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Abstract

Background and aims: The crisis of children's illnesses and their hospitalization is often a main source of stress and anxiety for family members and threatens distress tolerance (DT) among parents, particularly mothers. Self-encouragement training (SET) is one of the strategies with potential positive effects on DT. The present study aimed at evaluating the effects of SET on DT among the mothers of hospitalized children.

Methods: This quasi-experimental study was conducted in 2019. Participants were sixty mothers whose children were hospitalized in Ghadir subspecialty pediatric hospital, Shiraz, Iran. They were conveniently selected and randomly allocated to an intervention and a control group. Participants in the intervention group received SET based on the Schoenaker method in ten one-hour sessions in five days, while their counterparts in the control group received no SET. Data were collected using a demographic questionnaire and the Distress Tolerance Scale and were analyzed using the SPSS software (v. 22.0) and the independent-sample and the paired samples *t* tests.

Results: There was no significant difference between the intervention and the control groups respecting the pretest mean score of DT (39.17 ± 8.39 vs. 41.55 ± 10.28 ; $P=0.33$), while the posttest mean score of DT in the intervention group was significantly more than the control group (51.23 ± 6.95 vs. 41.23 ± 10.26 ; $P<0.001$).

Conclusion: SET is effective in significantly improving DT among the mothers of hospitalized children. Nursing managers can use SET to improve DT among these mothers.

Keywords: Mother, Child, Mother-child relationship, Distress tolerance, Self-encouragement, Psychological intervention

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Introduction

Children's illness and their hospitalization can turn into a crisis for parents and cause them stress, anxiety, fear, and frustration. Hospitalization of a child can make parents feel guilty about their inability to relieve the child's physical and emotional pain (1).

Distress tolerance (DT) is a main factor which can help parents cope with their emotional problems. By definition, DT is the perceived ability to face and cope with negative emotional states (2) and the ability to resist negative psychological challenges. Individuals with low DT find emotional distress unacceptable, attempt to avoid any undesirable emotional or psychological experience, and experience more intense distress during challenges (3). Accordingly, they may attempt to cope with their negative emotions through self-destructive behaviors such as drug abuse (4).

The findings of some previous studies suggested that previous experiences, knowledge, beliefs, expectations, genetic traits, non-judgmental acceptance of challenging physical and emotional experiences (5), and family-centered educational interventions can promote emotional healing in families (6,7). These findings denote that DT is

not a fixed trait and can be modified through different strategies (5). Therefore, short targeted interventions can be used to improve DT in different communities (8,9).

Self-encouragement (SE) is a strategy with potential positive effects on DT. SE refers to the notion that individuals' perceptions are a key factor which can make significant differences in their attitudes towards life, their responses to life events, and their management of life experiences in spite of experiencing negative and positive emotions (10). SE is an attitude which empowers individuals to build trust, success, and support. It is not the denial or suppression of negative emotions in life; rather, it refers to the deliberate attention to positive issues and awareness of one's own actions (11,12). SE helps individuals more intelligently solve their problems and identify the activities that they can independently perform. A key component of SE is to have a positive attitude towards problems and issues. Nonetheless, most individuals do not have such attitude and have feelings of inadequacy, inferiority, despair, and discouragement and even believe that they are not useful enough. These attitudes and feelings should effectively be managed to help individual's better cope with their life events and

problems (13,14). SE training (SET) has the potential to modify these attitudes and feelings and can have positive effects on psychological resilience and social health (15).

Despite the importance of SE and DT to effective coping with life events and problems, there are limited data about their interrelationships (16). Therefore, more studies are essential to produce clearer evidence in this area. The present study aimed at evaluating the effects of SET on DT among the mothers of hospitalized children.

Methods

Design

This quasi-experimental study was conducted in 2019.

Participants and setting

Participants were 60 mothers whose children were hospitalized in Ghadir subspecialty pediatric hospital, Shiraz, Iran. They were conveniently selected and randomly allocated to a control and an intervention group. Inclusion criteria were hospitalization of the child for more than one week in gastrointestinal or respiratory care wards and no self-reported serious physical or mental disorders. Exclusion criteria were unwillingness to stay in the study, absence from the intervention sessions, and hospital discharge during the study. For randomization, 60 opaque envelopes each with a 1- or 2-labeled card were prepared and randomly arranged. One envelope was allocated to each participant and she was allocated to either of the study groups based on the number in the envelope. Sample size was calculated to be thirty per group based on a confidence level of 0.95 and a power of 0.85.

Intervention

Study intervention was SET implemented in ten one-hour morning and evening sessions in five days (Table 1). SE-related training materials based on the Schoenaker method were provided through the lecture method in classrooms in the study setting. The Schoenaker method was developed in 1980 as one of the therapies based on the Adlerian theory in psychology. SET based on the

Schoenaker method focuses on the encouragement of self and others (17). Participants in the control group received no SE-based intervention.

Instruments

A demographic questionnaire and the Distress Tolerance Scale were used for data collection. The items of the demographic questionnaire were on age, occupation, and educational level. The Distress Tolerance Scale, developed by Simons and Gaher in 2005, has fifteen items in four dimensions, namely emotional distress tolerance (tolerance), absorption by negative emotions (absorption), subjective appraisal of distress (appraisal), and regulation of efforts to relieve distress (regulation). Items are scored 1–5 and the possible total score of the scale is 15–75. The Cronbach's alpha of the scale is 0.82 (2).

Data analysis

The SPSS software (v. 22.0) was used for data analysis. Data were described using the measures of descriptive statistics (i.e., mean, standard deviation, absolute frequency, and relative frequency). Between- and within-group comparisons were made through the independent-sample and the paired-sample *t* tests. The level of significance was set at less than 0.05.

Results

The mean of participants' age was 29.87 ± 4.75 years in the intervention group and 28.30 ± 3.84 years in the control group. The age mean of participants' children was 5.32 ± 3.31 years. Most participants in the intervention and the control groups were housewife (76.7% vs. 66.7%), had university degree (66.6% vs. 66.6%), and aged 24–34 years (68.8% vs. 66.7%). Between-group differences respecting participants' age, occupation, and educational level were not statistically significant ($P > 0.05$; Table 2).

The pretest mean score of DT in the intervention and the control groups was 39.17 ± 8.39 and 41.55 ± 10.28 , respectively. There were no significant differences between the groups respecting the pretest mean scores of DT and

Table 1. The content of the self-encouragement training sessions

Sessions	Goal	Content
1	Familiarization and basic definitions	Introduction of the members and sessions; introduction of the concept of SE; training about encouraging behaviors and traits
2	Motivation	Directing thoughts towards the purposefulness of all human behaviors and how to build a positive relationship between mother and child
3	Increasing attention to roles	Investigating the important role of the mother in difficult situations
4	The primary concept of training	Training self-encouragement words
5	Increasing compassion	Learning how to think lovingly
6	Promoting self-encouragement and starting balanced social relationships with others	Admitting mistakes and daring to accept imperfection; showing the belief that greater emphasis on positive things would be associated with less attention to negative things; holding positive expectations; and building positive interpersonal relationships
7	Learning inner dialogue	Learning how to practice the empty chairs technique; encouraging how to express personal interests
8	Attention to facts and obstacles and strengthening spiritual connections	Examining one's role in difficult situations; identifying the obstacles to goals; and seeking help from God in difficult situations
9	Improving mental image	Checking lifestyle and early memories; reviewing personal image
10	Improving positive inner thinking	Exploring one's dynamics; recognizing and combating the basic mistakes of life; and reviewing previous sessions

its dimensions ($P > 0.05$). However, the posttest mean scores of DT and all its dimensions in the intervention group were significantly more than the control group ($P < 0.05$; Table 3). Moreover, the mean scores of DT and its dimensions did not significantly change in the control group ($P > 0.05$) but significantly increased in the intervention group ($P < 0.01$) (Table 3).

Discussion

The level of DT at pretest was low in both groups. Individuals' DT may change over time in response to stressful conditions. For example, the level of distress increases among mothers whose children are hospitalized and increases with hospital stay and illness severity and negatively impacts family functioning. Our findings revealed that SET significantly improved DT. Although we found no study into the effects of SET on DT among the mothers of hospitalized children, there were some studies

into the effects of SET on other health-related outcomes or populations. For example, a study showed that SET significantly increased resilience and optimism among the mother of children with mental retardation (10). Another study revealed that SET significantly reduced stress among the mother of children with cancer (18). Similarly, a study reported emotional SE as a significant predictor of depression and hence, recommended nurses to use SET to reduce depression (12). A study also found that SET reduced loneliness, stress, and stress-related physical and psychological complaints, and improved tolerance, confidence, friendly behaviors, optimism, positive attitude, and social skills (19). Another study found that SET based the Schoenaker method was effective in significantly improving self-efficacy, life satisfaction, and emotional regulation among couples and hence, recommended SET for family counseling and psychotherapy (20). Moreover, several studies reported that SET significantly improved self-esteem and reduced sense of isolation among the family members of patients with Alzheimer's disease (21) and reduced sense of loneliness among students by improving their communication skills, social interest, and religious and existential health (22,23). Furthermore, a study revealed that SE had direct positive effects on health-related quality of life among Muslims and recommended SE as a method to enhance quality of life (24).

SE is considered as an essential component of all psychological therapies (16). A study on students in California showed that SET significantly improved their performance (25). Another study reported that DT-targeted interventions by parents were associated with the alleviation of some negative consequences (26). Therefore, SET can be considered as a strategy to facilitate the development of individuals' inner resources and their courage to take positive actions and also to create an optimistic, empowering, and nurturing environment for healthcare clients (10). In fact, SE in difficult conditions conveys messages like this, "Although it is very difficult, I'm sure I can handle it". Such messages can increase individuals' DT and thereby, improve their ability to accept their conditions and regulate their emotions. Similarly, our findings indicated that through emphasizing acceptance, particularly self-acceptance, SET helped the mothers of hospitalized children better accept themselves and value their life activities. This highlights that SE is an important psychological concept with different strengths (27) which can improve self-esteem and positive self-image (11). A study also showed that SET was effective in decreasing aggression and increasing academic self-efficacy among the mothers of students with special learning disorders (16). Peer support and encouragement can also help women better cope with their problems and thereby, reduce their anxiety (28).

The findings of the present study revealed that SET improved all dimensions of DT while the highest and the lowest dimensional posttest mean scores belonged to the

Table 2. Between-group comparisons regarding participants' demographic characteristics

Characteristics	Group		P value
	Intervention	Control	
Occupation, No. (%)			
Housewives	23 (76.7)	20 (66.7)	0.39 ^a
Employed	7 (23.3)	10 (33.3)	
Educational level, No. (%)			
High school	3 (10)	2 (6.7)	0.96 ^b
Diploma	7 (23.3)	8 (26.7)	
College	20 (66.6)	20 (66.6)	
Age (y), Mean \pm SD	29.87 \pm 4.75	28.30 \pm 3.84	0.17 ^c

^aChi-square test; ^bMann-Whitney U test; ^cindependent-sample t test

Table 3. Within- and between-group comparisons respecting the mean scores of distress tolerance and its dimensions

DT dimensions	Group	Time		P value ^a
		Before	After	
Tolerance	Control	8.17 \pm 4.05	8.03 \pm 4.29	0.38
	Intervention	7.33 \pm 2.81	11.87 \pm 2.30	<0.001
	P value ^b	0.36	<0.001	-
Absorption	Control	7.97 \pm 4.34	8.03 \pm 4.44	0.72
	Intervention	7.53 \pm 2.60	11.63 \pm 2.24	<0.001
	P value ^b	0.67	<0.001	-
Appraisal	Control	16.08 \pm 6.03	16 \pm 5.62	0.83
	Intervention	15.33 \pm 3.88	20.77 \pm 3.55	<0.001
	P value ^b	0.57	<0.001	-
Regulation	Control	9.33 \pm 4.44	9.17 \pm 4.26	0.46
	Intervention	8.93 \pm 2.99	12.37 \pm 1.69	<0.001
	P value ^b	0.68	<0.001	-
Total	Control	41.55 \pm 10.28	41.23 \pm 10.26	0.51
	Intervention	39.17 \pm 8.39	51.23 \pm 6.95	<0.001
	P value ^b	0.33	<0.001	-

^a The results of the paired samples t test; ^b The results of the independent samples t test.

What does this paper contribute to the wider global clinical community?

- Self-encouragement training improves distress tolerance among the mothers of hospitalized children.
- Self-encouragement training improves comfort, optimism, and ability to support hospitalized children among mothers.
- Self-encouragement training can reduce stress and anxiety among the mothers of hospitalized children.

appraisal and the absorption dimensions, respectively. An explanation for the lowest score of the absorption dimension may be the short course of the study intervention.

One limitation of the present study was that the study groups were matched with each other only based on limited number of variables. Future studies are recommended to consider other variables such as personality traits, family support, and previous experiences.

Conclusion

This study suggests that SET significantly improves DT among the mothers of hospitalized children through improving their self-confidence and their ability to establish friendly interpersonal relationships. Therefore, nursing managers in pediatric hospitals are recommended to use SET to improve mothers' awareness of their feelings and their ability to manage their feelings and thereby, facilitate recovery among their hospitalized children.

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Conflict of Interests

The authors declare no conflict of interests.

Ethical Approval

The Ethics Committee of Khorasgan Islamic Azad University, Isfahan, Iran, approved this study (code: IR.IAU.KHUISF.REC.1397.13). Informed consent was obtained from all participants after informing them about the study aim.

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