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The Effectiveness of Schema Therapy on the Coping Strategies and Psychological Hardiness of Mothers ith Children Who Stutter

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Abstract

Background: Mothers play an important role in the process of treating children's stuttering. Enhancing mothers' psychological state through coping strategies and psychological hardiness based on schema therapy can significantly affect the mother-child relationship during the therapeutic process.

Objectives: The present study aimed to investigate the effectiveness of schema therapy on the coping strategies and psychological hardiness of mothers ith stuttering children in Kermanshah.

Methods: The present quasi-experimental study employed a pre-test-post-test design ith a control group. In this study, 30 mothers of stuttering children ere selected through purposive sampling and randomly divided into t o groups. Endler and Parker's coping strategies questionnaire and Kubasa's psychological hardiness questionnaire ere used. Schema therapy, based on Young's schema therapy protocol, as used as the intervention in one group.

Results: The average age in the schema therapy intervention group as 34.60 ± 6.28 years, and in the control group, it as 35.87 ± 6.38 years. The highest frequency of education level in both groups as at the diploma degree. Regarding family income (socioeconomic status), the average-level income as the most common in both groups. Statistical comparison of the pre- and post-test scores of task, emotion, and avoidance strategies, as ell as the scores of commitment, challenge, and control components, sho ed statistically significant differences in the schema therapy group ($P < 0.001$).

Conclusions: As the present findings sho ed, due to the significant role of mothers' interaction and reaction in managing the treatment process of stuttering children, schema therapy can be used to improve the coping strategies and psychological hardiness of mothers.

Keywords: Schema Therapy, Coping Strategies, Psychological Hardiness, Mothers, Stuttering

1. Background

Stuttering is a major disorder affecting language and speech abilities (1). It disrupts the continuous flo of speech through the repetition or stretching of sounds, syllables, ords, and even phrases, as ell as silent pauses and various stops (2). This disorder affects almost one percent of the population, ith a higher prevalence in boys than in girls (3, 4). Although stuttering is a developmental disorder that begins in childhood, if not treated early, it can persist throughout life (5). Research has sho n that parents play a key role in the treatment and management of children's stuttering, ith most treatment programs for childhood stuttering relying on parents and family-oriented behaviors (6). An important point is ho parents, especially mothers, interact and react to the child's stuttering in difficult conditions (7, 8).

Mothers of stuttering children endure more psychological pressure and are more sensitive to their children's speech compared to mothers of non-stuttering children. This issue can intensify psychological problems and reduce cognitive functioning in these mothers (9). The psychological traits of parents and ho they deal ith these conditions play a significant role in either aggravating or improving the child's stuttering condition (10). In such stressful conditions, everyone tries to engage in

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activities that reduce stress and increase defensive skills. These methods and efforts are called coping strategies (11, 12).

Lazarus divided coping strategies into t o categories: Task and emotion strategies. Task strategies represent purposeful, task-oriented efforts to solve a problem, reorganize the problem, or change the situation. Emotion strategies represent self-centered reactions aimed at reducing stress rather than logically solving the problem. These reactions include emotional responses directed to ards the individual rather than the problem (12). In addition to these strategies, Endler and Parker proposed an avoidance strategy as the mechanism of avoiding the problem (13). Problem (or task) coping strategies are associated ith better adaptation, hile emotion coping strategies are associated ith lo er adaptation (12). A positive personality trait that helps people effectively deal ith problems and reduce psychological pressures in their lives is psychological hardiness (14).

Psychological hardiness as first proposed by Kubasa as a positive personality trait that acts as a source of resilience in the face of productive life events (15, 16). Psychological hardiness has three components: Commitment, control, and challenge (17). Individuals marked by hardiness are more committed to their goals (commitment), feel in control of their o n situation (control), and vie life changes as challenges and opportunities for gro th and progress, rather than as limitations and threats (challenge) (18). Those ith higher psychological hardiness effectively deal ith problems and reduce psychological pressures in life. They have better influence and mastery over different conditions and requirements of life, rather than a sense of helplessness (14, 18). When a mother has a child ith a disorder, her lifestyle and quality of life ill naturally be different from others, and she needs psychological hardiness to regulate, control, and manage these conditions (19).

In this context, schemas are used as a frame ork for information processing and exploring people's emotional reactions to life conditions and interpersonal relationships (20). Primary maladaptive schemas are self-damaging emotional and cognitive patterns formed early in life and recur throughout it. These schemas operate at the deepest level of cognition, usually beyond the level of consciousness, making one psychologically vulnerable to disturbances such as ineffective communication and psychosomatic disorders (20, 21).

Schema therapy addresses the deepest level of cognition and targets these initial maladaptive schemas. Through cognitive, emotional, behavioral, and interpersonal strategies, it helps people overcome these schemas (22). The primary goal of this psychotherapeutic model is to create psychological a areness and increase conscious control over the schema. Its ultimate goal is to improve schemas and coping styles. The schema therapy technique raises a areness of emotions, helping individuals better accept and regulate their emotions in social conditions (21, 23).

2. Objectives

Considering the role of mothers in the management and treatment of children's stuttering and the importance of mothers’ coping strategies and hardiness, the present study aimed to explore the effectiveness of schema therapy on the coping strategies and psychological hardiness of mothers ith stuttering children in Kermanshah.

3. Methods

The present quasi-experimental research employed a pre-test-post-test design ith a control group. The research population consisted of all mothers of children ith stuttering ho visited the rehabilitation clinic of Kermanshah University of Medical Sciences. A total of 30 mothers of stuttering children ho met the inclusion criteria ere selected through purposive sampling and randomly divided into t o groups of 15. In one group, the child as only treated by a speech therapist, hile in the other group, children ere treated by a speech therapist and their mothers received schema therapy intervention. First, ritten consent as obtained from all participants before they entered the study. Questionnaires, along ith the required explanations, ere provided to the participants before and after the schema therapy intervention.

The inclusion criteria for this study included the mother not being divorced, the mother not having a psychiatric illness, the mother not using psychoactive medication, and the child not having any other co-occurring disorder besides stuttering. Exclusion criteria included absence from more than t o counseling sessions, simultaneous use of other psychotherapy and counseling services during the sessions, and the participant's lack of consent to continue participating in the sessions.

Participants in the intervention and control groups completed questionnaires on coping strategies and psychological hardiness in the pre-test phase, and the obtained data ere recorded. Then, based on Yang and Weishaar’s schema therapy protocol, the intervention

group received 10 sessions of schema therapy, each lasting 90 minutes, once a eek (24). After the end of the eekly sessions, in the post-test phase, the experimental and control groups completed the questionnaires again, and the obtained data ere recorded. To address ethical considerations, all participants received oral information about the research and participated only if they ere illing. Participants ere assured that all information provided ould be confidential and used solely for research purposes.

In this study, the questionnaire developed by Endler and Parker as used to measure coping strategies. This scale includes three coping strategies: Task, emotion, and avoidance strategies (each ith 16 items and a score range of 16 - 80). The dominant strategy for each respondent as determined according to the score of each strategy type. The scale included 48 items scored on a five-point Likert scale ranging from "not at all" (score 1) to "al ays" (score 5) (25). If the respondent had not ans ered 5 or fe er questions, the researcher could consider a score of 3 for these questions. The validity and reliability of this instrument ere tested and confirmed by Ghoreyshi Rad (26).

The psychological hardiness questionnaire, developed by Kobasa, includes 50 items rated as "completely correct" (score 3), "almost correct" (score 2), "some hat correct" (score 1), and "not correct at all" (score 0). There are three components in this scale: Challenge, commitment, and control, each ith 17, 16, and 17 items, respectively. The scores of 39 items on the test are reversed, and a total score for hardiness and three scores for the constituent components are calculated and reported separately. The highest score on this questionnaire is 150, ith higher scores indicating more psychological hardiness and scores lo er than 65 indicating lo psychological hardiness (27).

To describe the present data, descriptive statistics (i.e., mean, variance, and standard deviation) ere used. Inferential statistics, such as analysis of variance ith repeated measurements, ere used to analyze the ra data to test the research hypotheses. The data ere analyzed using SPSS, ith the significance level of all tests set at 0.05.

4. Results

The present research as conducted on 30 participants (15 in each group), all of hom ere married. The mean and standard deviation of participants' age in the schema intervention group as 34.60 ± 6.28 years, and in the control group, it as 35.87 ± 6.38 years. The normality of data as confirmed using the Kolmogorov-Smirnov test ($P < 0.05$). Given the assumption of independence of groups and the assumption of homogeneity of variances (significance level of Levene's test greater than 0.05), a one- ay analysis of variance as used to compare the average age of the t o groups. The average age of participants in both groups, as the one- ay analysis of variance sho ed, as not significantly different bet een the groups ($P < 0.05$). The highest frequency of age in the schema therapy intervention group and control group as 26.7% for the age groups 31 - 35 years and 36 - 40 years, respectively. According to Fisher's exact test, there as no significant difference bet een the t o groups in terms of their age groups ($P = 0.981$). The highest frequency of education in both groups as at the diploma level. As the chi-square test sho ed, no significant difference as found in the level of education among the groups ($P = 0.902$). Regarding family income, the average-level income as the most frequent in both groups, ith no statistically significant difference bet een the t o groups in terms of income ($P = 0.791$) (Table 1).

Table 1. Distribution of Demographic Variables in T o Groups [a]

Variables	Intervention Group	Control Group	P-Value [b]
Age group (y)			0.981
20 - 25	1 (6.7)	(0)	
26 - 30	3 (20)	4 (26.7)	
31 - 35	4 (26.7)	3 (20)	
36 - 40	4 (26.7)	4 (26.7)	
41 - 45	3 (20)	4 (26.7)	
Education level			0.902
Junior high school	2 (13.3)	2 (13.3)	
Diploma	6 (40)	9 (60)	
Bachelor's degree	6 (40)	4 (26.7)	
Master's degree	1 (6.7)	0 (0)	
Income/SES			0.791
High	5 (3.3)	4 (26.7)	
Average	9 (60)	11 (73.3)	
Lo	1 (6.7)	0 (0)	

Abbreviation: SES, socioeconomic status.

[a] Values are expressed as No. (%).

[b] Chi-square test.

In the present research, the Kolmogorov-Smirnov test as used to check the normality of distribution. The test confirmed the normality of data separately for each research group ($P < 0.05$). The statistical comparison of the total score of stress coping strategies before and after the schema therapy intervention did not sho a statistically significant difference. As the paired-samples

t-test indicated, the difference in the mean score of the stress coping strategies questionnaire in the t o phases of research (pre- and post-tests) as not statistically significant in the schema therapy group (mean difference: - 0.85, confidence interval: - 7.22 to 5.52) (P = 0.780) (Table 2).

Table 2. Comparison of Changes in Total Score of Stress Coping Strategies and Components in Schema Therapy of Pre-test and Post-test Group Influenced by Time

Variables	Pre-test	Post-test	Major Impact of Time	
			t	P
Total score of stress coping strategies	122.94 (7.25)	122.09 (14.46)	0.285	0.780
Task score	25.24 (2.43)	51.93 (9.04)	11.91	0.001
Emotion score	48.52 (16.40)	33.40 (7.31)	6.88	0.001
Avoidance score	45.53 (20.52)	34.34 (6.65)	2.55	0.023

The comparison of the scores for the task, emotion, and avoidance strategies before and after the intervention sho ed a statistically significant difference in the schema therapy group. As the results of the paired-samples *t*-test sho ed, the difference in the mean scores of the three strategy types—task, emotion, and avoidance— as significant in the schema therapy group across the t o phases of the study (P < 0.001) (Table 2).

As the paired-samples *t*-test sho ed, the difference in mean scores of the psychological hardiness questionnaire in the t o phases of the study in the schema therapy group as statistically significant (mean difference: 53.67, confidence interval: 47.34 to 59.98) (P = 0.001) (Table 3). Statistical comparison of the scores for the commitment, challenge, and control components before and after the intervention in the schema therapy group sho ed statistically significant differences. As the paired-samples *t*-test sho ed, the difference in mean scores of the three components—commitment, challenge, and control—in the t o phases of the study in the schema therapy group as statistically significant (P < 0.001) (Table 3).

Table 3. Comparison of Changes in Total Score of Psychological Hardiness and Components in Schema Therapy of Pre-test and Post-test Group Influenced by Time

Variables	Pre-test	Post-test	Major Impact of Time	
			t	P
Total psychological hardiness score	82.0 (12.77)	135.67 (17.55)	18.21	0.001
Commitment score	27.06 (3.61)	43.06 (5.78)	13.75	0.001
Challenge score	27.67 (4.63)	45.66 (7.50)	15.21	0.001
Control score	27.26 (4.96)	46.93 (5.41)	16.58	0.001

5. Discussion

The present study aimed to explore the effectiveness of schema therapy on the coping strategies and psychological hardiness of mothers of stuttering children in Kermanshah. The results sho ed that schema therapy had significant effects on the coping strategies of these mothers. After the schema therapy intervention, the mean score of the task strategy type increased significantly compared to before the intervention, and the mean score of the emotion strategy type also increased significantly. Additionally, there as a significant decrease in the mean score of the avoidance strategy type in the post-test compared to the pre-test.

In their study, Yavari et al. found that schema therapy as effective in emotion and avoidance coping strategies, but it as not significantly effective in the task strategy type (28). In the study by Ali Akbari et al., the effect of schema therapy on the scores of task, emotion, and avoidance coping strategies as statistically significant. In other ords, the rate of task strategies in the experimental group significantly increased hile the emotion and avoidance strategies decreased (29). Similarly, the studies by Erfan et al. and Mardani et al. sho ed that schema therapy had significant effects on reducing avoidance strategies (30, 31).

Moreover, the results of the present research indicated that schema therapy as effective in enhancing the hardiness of mothers of stuttering children. The intervention led to a significant increase in the mean scores of the commitment, challenge, and control components before and after the intervention. Studies by Hasanpoor et al., Hasani et al., and Nasiri et al. also sho ed that schema therapy as effective in increasing hardiness (32-34). These findings are consistent ith those reported by Mahoor et al. and Shaham et al. (35, 36). No study in the existing literature reported inconsistent findings.

Psychological hardiness is defined as the effective ability to overcome pressure and intensity (37). It is one's ability and skill to adapt positively to stressful or difficult conditions, representing successful adaptation to challenging conditions in life (33). Schema therapy promotes positivity, responsibility, impulse and emotion control, respect for the rights of others, adherence to rules and regulations, and the principles of mutual relations, forming the basis of healthy social interactions (32). With the improvement of schemas, schema therapy significantly reduces the intensity and

frequency of their activation, thereby increasing individuals' psychological hardiness (36).

Therefore, it can be concluded that schema therapy helps mothers of stuttering children identify their strengths and eaknesses, expand their range of communication, improve their ability to cope ith stress, and, as a result, increase their psychological hardiness.

5.1. Limitations

Since there is limited research evidence on this topic, it is suggested to conduct further studies ith a larger sample size to better clarify the effectiveness of these solutions. One of the limitations of the present research as lo participation and poor self-expression among the subjects.

5.2. Conclusions

The results of the present research proved the effectiveness of schema therapy in enhancing the coping strategies and psychological hardiness of mothers of stuttering children, highlighting the important role of mothers in managing their children's stuttering treatment. It is suggested that this psychological therapy be used to improve the interaction bet een mothers and their stuttering children.

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Footnotes

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