The Effect of Family Counseling on Anxiety, Depression, and Stress Levels in Mothers of Disabled Children: A Randomized Controlled Trial

Abstract

Objective: The aim of this study is to investigate the effect of family counseling on anxiety, depression, and stress levels in mothers with disabled children.

Method: The research was conducted on the mothers of 80 randomly selected kids out of 200 disabled children studying at a Private Education and Rehabilitation Center. Six family counseling sessions were provided to the mothers in the study groups as eight participants per group. The primary outcomes of the study were changes in Beck Anxiety Inventory (BAI), Beck Depression Inventory (BDI), and Perceived Stress Scale (PSS) scores of the mothers at the beginning of the study; right after the counseling was finished, and three months later.

The mean PSS, BDI, and BAI scores in the second tests performed right after the six counseling sessions were significantly lower than the average scores in the first tests ($p<0.001$, $p<0.001$, and $p<0.001$, respectively). There was no significant difference between the 1st and 2nd PSS, BDI, and BAI mean scores of the mothers in the control group ($p>0.05$).

Conclusion: Mothers of disabled children were exposed to anxiety, depression, and stress more than other society members. Thus, they need more psychological support. Family counseling can meet disabled children's mothers' support needs. The counseling program we applied had positive effects on mothers' anxiety, depression, and stress scores. By expanding this counseling service in primary health care services, mothers with disabled children can cope more easily with their psychological burden.

Keywords: mothers with disabled children, children with disabilities, social support, psychological burden, family characteristics.

Introduction

“Disability is a difficulty in functioning at the body, person, or societal levels, in one or more life domains, as experienced by an individual with a health condition in interaction with contextual factors”. Depending on age, gender, and social and cultural factors, disability presents various situational differences regarding role assignment and fulfillment due to disabilities or handicaps . Approximately 15 percent of the world's population (around one billion people) is diagnosed with a disability. The “World report on disability” published by the World Health Organization in 2011 shows a disability prevalence of 15.6 percent in studies conducted in 59 countries. According to this report, the highest prevalence of disability was among women, the elderly and vulnerable groups suffering from economic poverty in all countries . The Turkey Disability Survey (2002) investigated the profile of disability in Turkey. Accordingly, disability prevalence is 12.29 percent (13.45 percent among men and 11.1 percent among women), making 8,431,937 people .

All parents desire healthy children. Regardless of its degree, learning that the expected child will have a disability or have a child with disability is highly stressful . Independent of the disability degree, having a disabled child bears some unique difficulties. The associated problems can be listed as psychological and financial deprivations, barriers to formal education, interference with daily life, and weakened relationships with family and the social environment . Other difficulties may include changes in parental roles, encounters with insensitive health professionals, and the reactions of other family members, friends, and the social environment . Usually, the mother takes a more active role and personally attempts to solve all these difficulties. The perceptions and expectations of families with disabled children vary according to the mother and father . Additionally, a disabled child's birth may cause deterioration of the within-family communications and the spouses' relationships .

Studies show that parents (especially mothers) with mentally or physically disabled children experience more stress and have increased anxiety levels than parents who do not have this condition . Somatic complaints, depression, and anxiety disorders are observed more frequently in mothers with handicapped children . Furthermore, Seltzer et al. reported that depression is more common in parents with mentally or physically disabled children .

If the family (especially the mother) succeeds in combating these difficulties, the quality of life of the disabled child increases and the discomfort within the family is eliminated. However, this cannot be achieved solely by the mother, affirming that professional assistance may also be required . While mothers with disabled children desire proper education regarding the care and treatment of their handicapped child, they also need psychological support. Parents of disabled children often expressed

their need for family counseling to deal with problems within the family. These needs emerge, especially in dealing with grief, sorrow, and troubles brought about by living with a disabled child . Family counseling is a learning process between a specialist in disability and the child's parents. It focuses on developing the attitudes and skills necessary to solve the problems of the parents. During the counseling process, parents are given opportunities to freely express their feelings such as anger, guilt, and hostility that they refrain from speaking, and they are encouraged to make realistic plans for themselves and their children. It is among the counselor's goals to help parents take ownership and responsibility for their own skills and communicate more effectively with the social environment .

This study aimed to show the effect of family counseling on anxiety, depression, and stress levels of the mothers with handicapped children.

Materials and Methods

Research design and sample selection: This research was designed as a randomized controlled intervention study. It was administered to 80 mothers of children with disabilities. The mothers were randomly selected by the Randomizer application among the mothers of 200 disabled children who received education in a rehabilitation center. The exclusion criterion included individuals that were already receiving family counseling services to combat the disabled child burden.

Sampling Size: It was calculated that a sample of 40 people in each group was required to determine the differences between the two groups. These differences were ascertained using the t-test in independent groups with 80 percent power, an alpha error margin of 0.5, and an effect size of 0.10.

Ethics Committee and Permissions: The study permission was obtained from the Atatürk University Faculty of Medicine Clinical Research Ethics Committee (Number: B.30.2.ATA.0.01.00/123-Date: 24.07.2014). Additionally, approval was taken from the private rehabilitation center where the study was conducted.

Research Protocol: Eighty randomly selected mothers were allocated into study and control groups equally. Six family counseling sessions with one-week intervals were provided for the mothers in the study groups, with eight participants per group. The primary outcomes of the study were changes in maternal PSS, BDI, and BAI scores. The Beck Anxiety Inventory (BAI), Beck Depression Inventory (BDI), and Perceived Stress Scale (PSS) tests were administered to the mothers at the beginning of the study, after the counseling sessions, and three months later. The same questionnaires were applied to the control group at the same intervals but without administering any other intervention.

Data Collection Tools:

The Beck Anxiety scale is a 4-point Likert-type self-rating scale. The Turkish validity and reliability of the scale was made by Ulusoy et al. . The 0-7-point range obtained from the scale indicated “minimal anxiety,” the 8-15-point range “mild anxiety,” the 16-25 point “moderate anxiety,” and the 26-63 point “severe anxiety" . The Beck Depression Scale is another 4-point Likert type self-rating scale. The Turkish validity and reliability of this form was developed by His . The 0-9-point range indicated “minimal depression,” the 10-16-point range “mild depression,” the 17-29-point range “moderate depression,” and the 30-63-point range “severe depression” . The other inventory used in the study is the Perceived Stress Scale, a 5-point Likert type scale. The Turkish validity and reliability of the Perceived Stress Scale was developed by Yerlikaya and İnanç . It has two subscales, namely Perceived Stress and Perceived Coping. The scale is evaluated on both total score and subscale scores. The higher the total score, the higher the stress .

Statistical Analysis: Statistical analysis was performed with the SPSS Version 23.0 statistic software package (SPSS, version 23X, IBM, Armonk, New York 10504, NY, USA). For descriptive statistical analysis numbers and percentages for categorical data, and means and standard deviations for numeric data were presented. Before statistical analyses, compliance of numerical variables to normal distribution was examined with histogram graphs. The Student’s t-test, Mann-Whitney U test, repeated-measures ANOVA, one-way ANOVA, Chi-square, and Fisher's exact test were used as hypothesis tests. Statistical significance was accepted as $p<0.05$.

Results: The average maternal age of those who participated in our study was 42.14 ± 10.01 years, and the mean age of the disabled children was 13.49 ± 8.82 years. There was no significant difference between the mean age of the groups (p=0.504). Besides, there was no significant difference between the groups according to their education levels (p=0.574). There was no significant difference between the mothers in the study and control groups concerning their children's type of disability (p=0.141). Five mothers (12.5 percent) in the study group and two (5 percent) in the control group had more than one disabled child (Table1). There was no significant difference between the study and control groups regarding maternal age (p=0.504), disabled child age (p=0.221), and monthly income (p=0.129).

There was no significant correlation between the mothers' education status and the total scores of the first PSS, BDI, and BAI scores (p= 0.346; 0.247; 0.294, respectively).

Compared to the mothers' first PSS score in the study group, a significant decrease was observed in the second PSS scores (p <0.001). However, there was no significant difference between the second and the third PSS scores (p = 0.123). On the other hand, there was no significant difference between the first and the second PSS scores or the second and third PSS scores of the mothers in the control group (p = 0.197 and p=0.521, respectively) (Table 2).

Compared to the mothers' first perceived coping scores in the study group, a significant increase was observed in the second perceived coping scores ($p<0.001$). However, there was no significant difference between the second and the third perceived coping scores ($p=0.100$). On the other hand, there was no substantial difference between the first and the second perceived coping scores or the second and the third perceived coping scores of the mothers in the control group ($p=0.706$ and $p=0.195$, respectively) (Table 2).

Compared to the mothers' first PSS scores in the study group, a significant decrease was observed in the second PSS scores ($p<0.001$). However, there was no substantial difference between the second and the third PSS scores ($p=0.491$). On the other hand, no significant difference was found between the first and the second PSS scores of the mothers in the control group, nor between the second and the third PSS scores ($p=0.271$ and $p=0.873$, respectively) (Table 2).

There was a significant decrease in the mothers' second BDI scores in the study group compared to the first BDI scores ($p<0.001$). However, there was no significant difference between the second and the third BDI scores ($p=0.500$) of this group. On the other hand, there was no significant difference between the first and second BDI scores of the mothers in the control group or between the second and third BDI scores ($p=0.770$) (Figure 1).

Compared to the mothers' first BAI scores in the study group, a significant decrease was observed in the second BAI scores ($p<0.001$). However, there was no significant difference between the second and the third BAI scores ($p=0.573$). On the other hand, in the mothers of the control group, there was neither a significant difference in the first BAI scores compared to the second BAI scores nor a substantial difference between the second and the third BAI scores ($p=0.666$ and $p=0.156$, respectively)

Discussion

This study determined that family counseling positively affected anxiety, depression, and stress levels in mothers with disabilities.

When the BAI, BDI, and PSS scores of the mothers in the study group who received family counseling were examined, a significant decrease was observed after family counseling. In the consequent evaluation performed three months later, all three inventory scores continued to be significantly lower in the study group than in the control group. This indicates that family counseling's positive effect on the anxiety, depression, and stress levels of mothers with disabled children continued.

There was no significant difference between the BAI, BDI, and PSS scores of the mothers in the control group. Results showed that the positive improvement in the anxiety, depression, and stress scores of the mothers in the study group was independent of their children's education in the rehabilitation center. Furthermore, the positive improvement was also evidenced as being independent of education regarding the children in the control group, who were also receiving the same teaching in the same rehabilitation center.

The decrease in BAI, BDI, and PSS scores in the second tests applied after family counseling compared to the first tests' scores indicate that providing family counseling services to mothers would reduce the anxiety, depression, and stress correlated with the care of disabled children. As a matter of fact, parents of disabled children frequently stated that they needed family counseling to cope with the family's problems . In previous studies and literature, the professional psychological support provided to parents with disabled children has been found to be beneficial . A psychological support program effectively reduced the hopelessness levels and increased the optimism levels of mothers with disabled children in the experimental group . Dilmaç et al. showed that compared to the study group, the anxiety levels of mothers with mentally disabled children decreased after having education sessions . In Yıldırım and Conk's study, there was a significant decrease in depression and stress levels of mothers with mentally disabled children after receiving private education . All these findings are consistent with our study.

Providing counseling services solely to mothers in the family of the disabled child is a limitation of our study. However, according to Stewart, the mother’s psychological well-being affects not only the disabled child but also all family members. For this reason, working only with the mother does not mean ignoring the needs of the other family members and siblings. Helping the mother also means supporting the whole family .

In the study results of Hayden et al., it was reported that mothers of children with mental disabilities experience the most stress in the group of mothers with disabled children. Mothers responsible for the care of mentally disabled children were exposed to increased levels of stress more than healthy mothers; thus, their mental and physical health was impaired . In our study, mothers with mentally disabled children exhibited no significant difference regarding anxiety, depression, and stress levels than mothers who had physically disabled children.

There was no significant relationship between the mothers' educational status who participated in the study and their first BAI, first BDI, and first PSS scores. This result reveals that the mother's education level is not correlated with the mother's anxiety, depression, and stress levels. However, when the studies conducted were reviewed, Özkan reported that the higher the education level of the mothers’ with disabled child, the higher the level of coping with depression . Quine and Pahl also

stated that having a higher social status can reduce the harmful effects of raising a disabled child, and having a higher education level can provide mothers with analytical thinking and problem-solving skills to reach more information and form more positive coping strategies .

Studies have also reported that mothers responsible for the care of disabled children are exposed to more stress than healthy mothers, causing subsequent impairment in their mental and physical health . Our study's first BAI scores were compatible with moderate anxiety and the first BDI scores with mild depression. These averages were higher than the total BAI, and BDI mean scores of the mothers of non-disabled children comprising the control group in the study conducted by Uğuz et al. . This supported the hypothesis that mothers with disabled children were exposed to more anxiety, depression, and stress than mothers in society . It should also be noted that the mothers included in our study had disabled children receiving private education. Previous studies demonstrated a significant positive difference in depression scores of mothers of children receiving private education than those who were not . This alludes to the idea that the mother of a disabled child who does not have private education has a much higher depression score than the other mothers in society.

In our study, the family counseling plan focused on accepting the disability, the needs of the disabled child, the typically developing characteristics of the disabled child, the acceptance of the child by other family members, and how mothers' with disabled child can receive support in dealing with problems. These are the topics that concern the mother, the handicapped child, and the family comprehensively.

"Acceptance of the disability" is the most challenging period of the process . The mothers participating in our study were not at the very first meeting moment with their disabled child. This can be considered as a limitation of our research. Providing counseling services would be more beneficial for mothers' with disabled child when interacting with their disabled child for the first time. By establishing a feedback system on this issue, mothers who have a disabled child should be registered, and counseling should be provided. Mothers who are found to have a disabled child during pregnancy should be recorded on a database so that professional counselors can provide comprehensive care before and after birth.

The support of other parents is crucial for the parents of children with disabilities. According to Auerbach, mothers can express their feelings and thoughts more efficiently in a group environment than in a one-on-one conversation with a specialist. Group work with mothers can have various purposes. The group session's general goal is to allow the participants to share their problems and the members to provide mutual assistance and support to each other by transferring the ways of coping with the unique situation. Mothers participating in the group can realize what is happening in their lives with the feedback they receive from other mothers . Many studies emphasize the importance of

group counseling and the social support created by disabled children's mothers. Being together with mothers in the same situation provides solidarity within the group . A family with a disabled child sees and understands the troubles and fears experienced by another family in a similar situation . In our study, the consultancy service provided to mothers included groups of eight members. This has probably increased the effectiveness of the provided counseling method.

For the results obtained to be permanent, the consultancy service may need to be repeated as needed for years to come. Because one of the basic principles of family consulting is the continuity of the service, consultation may be a never-ending process that continues even after its formal end. This is called "open-termination". Therefore, families may need to be consulted again .

Limitations: The application of control questionnaires only once (3 months later) after the counseling service is considered a limitation. Conducting studies with larger samples and for a longer duration would better reveal the impact of family counseling services and its effect on the mother with disabled children in combating anxiety, depression, and stress. Furthermore, the inclusion of women who did not have disabled children could allow a comparison with the general population.

Conclusion

Mothers with disabled children need professional psychological support while dealing with the burden and difficulties of their disabled children. The current study is an example of giving counseling services and support to the mothers with disabled children. Family counseling services are becoming more prevalent in Turkey, and the number of trained practitioners in this field is increasing daily. However, there is no specially planned service for the mothers with disabled children. In this regard, starting routine consultancy services for mothers with handicapped children may facilitate the acceptance of the disability. We suggest this service, especially during the last trimester and right after giving birth. Conclusively, counseling service implementation will empower the mother to overcome the difficulties that complement the uniqueness of parenting a disabled child with the least psychological damage possible.

References