

The Effectiveness of Strategic Solution Oriented Therapy on Fatigue and Quality Of Life among Mothers of Children with an Autism Spectrum Disorder

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Abstract

Background

Parents of children with autism spectrum disorder (ASD) showed significant fatigue and loss in their quality of life. The study aims to investigate the effectiveness of the strategic solution oriented therapy on fatigue and quality of life among mothers of children with autism spectrum disorder.

Materials and Methods: This experimental study was performed among 28 mothers of children with autism spectrum disorder using purposeful sampling. The participants were divided in two groups, namely, experimental (n=14), and control (n=14) groups. The experimental group held 7 sessions of 1.5-hour while the control group was not offered any therapy from the second half of October until the second half of December 2019. The questionnaire Fatigue (SPIN) and Life Quality (RCSQ) were completed before and after any type of (experimental and control) education. In addition to descriptive statistics, the study of variance estimation (MANOVA) was used to interpret the findings using the SPSS software version 25.

Results: In this study, the majority of mothers (32.1%) were between 25 and 30 years of age and the higher education degree of mothers (44.6%) was a diploma. The Mean and SD for mental fatigue (3.02 ± 0.103), and quality of Life (2.03 ± 0.127) in pre-test and post-test mental fatigue (1.10 ± 0.699), and quality of Life (3.31 ± 0.220) has been shown respectively ($p < 0.05$).

Conclusion

The strategic solution-oriented counseling intervention for mothers with children with autism was administered in seven 90-minute sessions. As a result of this strategic solution-oriented intervention, mothers with children with autism experienced less emotional fatigue and had a higher quality of life.

Key Words: Autism spectrum disorder, Children, Fatigue, Mother, Therapy, Parents.

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1- INTRODUCTION

The Diagnostic and Statistical Manual-5 categorized autism spectrum disorder (ASD) as a single umbrella group, replacing the four separate subtypes in the as specified in the Diagnostic and Statistical Manual of Mental Disorders, 4th Edition, Text Revision(DSM-IV-TR). Comorbidity between ASD and signs of other neurodevelopmental disorders, psychological conditions, and health issues has been demonstrated (1). Approximately 52 million cases of ASD have been recorded worldwide (2). Comorbidity between ASD and signs of other neurodevelopmental disorders, psychological conditions, and health issues have been reported (3). Raising children with autism entails many logistical challenges, such as financial stresses, supplying children with housing, access to care, and fewer opportunities for parents to work outside the home (4). Many children with ASD need comprehensive educational, behavioral, and health services, which require substantial financial, time, and care planning investments for families (5).

The perception and needs of the parents of children with ASD have gained growing attention in recent years. Being a parent of a child suffering from chronic illness is a big challenge both mentally and practically. When a child is diagnosed with a chronic disease or impairment, a significant stressor affects both the child's and the parents 'mental and social functioning (6). Parents who are primary caregivers of their children affected by autism spectrum disorder also experience higher levels of stress and poor physical health relative to parents of children with normal development (7). The distress among these parents may occur more stressful than the illness itself. These Parents are not only responsible for the physical treatment of their child, but also have to deal with the disease in terms of

medical, school-related, and other social aspects (8). Regular treatment for a child with a chronic illness or disability is stressful and can lead to increased and long-term pressures, stress, and fatigue (1, 5). Many parents are frustrated by everyday demands and the general burden of life that they face in the parenting of an ASD-affected child (9). Increasing evidence indicates that the parents of children with ASD experience higher levels of depression and anxiety, fatigue (10-11), increased problems with physical health and body pain, lower general well-being, and quality of life (1). There is no ASD treatment per se, and the complexity of the condition negates the use of monotherapy. Instead, a more parsimonious approach is to establish combinations of treatments that mitigate or strengthen the effect and impact of core ASD symptoms, and enable individuals and those around them to expand their range of skills (12-13).

Furthermore, the programs are expected to address the needs of both children and adults with ASD over a lifetime. There is a shred of positive evidence for the use of clinical treatments in children with ASD, such as behavioral and cognitive-behavioral therapies (10-14), social cognition (15), and skills-based interventions (16). Nevertheless, the drawback of these approaches is that the parents do not specifically discuss relationship and communication problems between family members, nor do they aim to improve family ways to cope or resilience factors. Similarly, a recent report highlighted the possible efficacy of parenting with ASD (17). However, this approach allows parents to take on a supportive function rather than directly addressing their (potential) reciprocal needs and the bi-directional relationship between individuals. Family counseling, on the other hand, is a more comprehensive intervention (16-17). As

noted above, there is an increasingly growing need to provide recovery services for individuals with ASD and family members (18-20). In addition, improving parent's mental health and well-being also improves the capacity of the child to increase the quality of life as well. Improvements in the child's overall actions and functioning are made when the behavioral intervention services given to the child are complemented by the parent's consistent implementation in the home environment. It has been stated that the efficacy of the child's behavioral therapy services would diminish if the mental health needs of the parents are not met (7). Thus, there are many types of family therapy techniques which include: organized therapy; formal family therapy; family pragmatic therapy; approaches to Milan; solution-focused therapy; narrative therapy; and family therapy (16-18).

The body of strength-based research highlights the need for relationship-based approaches that draw on the strengths of families to improve coping, effectiveness, and well-being among families impacted by ASD strategic solution oriented therapy is a therapeutic strategy that is increasingly being used by clinicians to resolve the need for collaborative, interrelated approaches in ASD children's families (21, 22). Strategic solution-oriented therapy forward-looking approach to therapy based on a strategic therapeutic relationship in which client perception and interaction are a priority during the recovery process. The family is encouraged to inform the therapist about their inherent abilities and strategies to achieve treatment goals since these methods have the greatest progress in achieving clinical outcomes with a solution-focused approach (21-23). Parents of children with autism have been involved in many physical and behavioral issues according to what has been said. It should be noted that the fathers of autistic children have less interaction with their

autistic children because of their job, as compared to mothers. Therefore, the mothers should have deserved more attention and recognition from health institutions due to problems such as mental fatigue and low quality of life, because the mother is the main center of the family, the happiness of the mother and the mental health of the mother guarantee the health of the family and the society. According to what was mentioned, the aim of the current research was to explore the efficacy of strategic solution-oriented therapy on mental fatigue and the quality of life of mothers of autistic children. This study also attempted to determine whether a relatively strategic solution-oriented therapy intervention may have an impact on mothers with autistic children's overall exhaustion and quality of life. We aimed to investigate the effectiveness of the strategic solution oriented therapy on fatigue and quality of life among mothers of children with autism spectrum disorder.

2- MATERIALS AND METHODS

2-1. Study design and population

The testing approach is quasi-experimental and used a pre-test post-test design with a control group. The statistical population of the research included all mothers of children with autism spectrum disorder who were studying at special children's training centers in the south of Tehran in the first half of 2019.

2-2. Methods

The purposeful sampling approach was used in this analysis. Thus, after announcing the call from candidates who wished to participate in the treatment program and were qualified to participate in the meetings, 28 mothers who had the requirement to join the study were chosen and randomly assigned to two experimental (14 mothers), and control groups (14 mothers). The researchers explained to the participants that the

treatment sessions were both designed to help them to improve their mental health and to do some research. The experimental group held 7 sessions of 1.5-hour from the second half of October until the second half of December 2019. Thus, psychological fatigue and quality of life questionnaires were administered as a pre-test for the two study and control classes. The strategic solution oriented therapy was routinely presented by the therapist (the first author of this report) through weekly tasks and daily activities but, no therapeutic intervention was provided by the control group until the end of the research. In this study, the protocol for treatment sessions is based on Lethem's treatment model (24). Two groups were reassessed at the end of the therapy sessions by using The Questionnaire Fatigue (SPIN), and Life Quality (RCSQ) on psychological fatigue and the quality of life.

2-3. Measuring tools: validity and reliability

2-3-1. Fatigue Severity Scale (FSS): the Fatigue Severity Scale (FSS; [38]) was used to measure the interference of fatigue on functioning. The FSS is a widely used scale of fatigue severity and interference in chronic illness populations. The revised version (FSS-5R) was calculated from Items 4 to 8 of the original FSS with simplified response options (recoded from 1,234,567 to 1,112,345) and had improved psychometric properties [43]. The proportion of women reporting fatigue severity above the suggested clinical cut-off (≥ 36) and for comparison with community studies in which the full scale was used. For each statement, the rating scores range from 1 to 7; however, only the respective ends of the scale are defined when a low value of 1 indicates "completely in disagreement" with the statement and a high value of 7 indicates "completely agreed" or the most severe fatigue. The total FSS score is the mean

score of the nine things ranging from 1 to 7 where the higher scores indicate more extreme fatigue and Cronbach's alpha of this scale achieved 0.88 (25). The FIS Persian version was shown to possess a high reliability with a Cronbach's alpha of 0.95 (26).

2-3-2. Family Quality of Life: The Beach Center Family Quality of Life Survey obtained data on the family quality of life from caregivers (27). The Beach Center Family Quality of Life survey is a self-reporting test that measures five subscales, including family engagement, parenting, mental well-being, physical/material well-being, and disability-related assistance. The authors reduced the final version of the measure to 25 items, and use was made of all 25 items in this report. Participants were asked to rate their satisfaction level for each item on the Likert scale from 1 (very unsatisfied) to 5 (very satisfied). Sub-scale social engagement measured the family's feelings about spending time together, for instance, my social loves spending time together.

The sub-scale parenting measured family caregivers' ability to support their child with special needs, for example, "Family members help children learn to be independent. The mental well-being subscale assessed the family support system, for example, my family has the support we need to alleviate stress. The physical/material well-being subscale assessed the family resources, for example, my family members have transportation to get to the places they need to go.

The final subscale disability-related assistance assessed the help provided to a family member with special needs, such as "My family member with special needs has helped to make progress in the workplace. It's targeted population, families with special needs have traditionally used the Beach Center Family Quality of Life Scale. The Beach Center Family Quality of Life Scale has been commonly used by its

target demographic, families with special needs. The authors record a good test-retest of 37 reliability and high convergence of validity (27). Test-retest reliability for each of the FQOL subscales has been tested in terms of both performance and satisfaction. As there were no hypotheses for this study on the subscales, the overall measure (general quality of life) was used. The present research examined the caregivers' results on the overall quality of life (total measure). Cronbach's alpha was 0 = .92 in the present analysis. The findings established a five-factor model of family involvement, parenting, emotional well-being, physical/material well-being, disability-related assistance, and a one-factor model. Cronbach's alpha was 0.93

for the entire scale and 0.73 to 0.86 for the first to fifth ones, respectively.

In addition, the correlation coefficients of each element with the total scale score ranged from 0.47 to 0.74, and the convergence value of the scale was 0.64 with the family resources and 0.59 with the Apgar Family Operating Scales, which were important. According to the study, the Beach Center Family Quality of Life Index can be extended to research programs and therapy for families with children with developmental and non-developmental disabilities (28).

2-4. Intervention

The experimental group held 7 sessions of 90 minutes, while the control group was not offered any therapy (**Table.1**).

Table-1: Description of strategic solution -oriented therapy sessions.

<p>First session, Session Summary: The Therapeutic Introduction. Introduce group leaders, and get to know each other. Present community guidelines, such as timely and regular attendance at meetings and the need for empathy and assignments in line with the principle of confidentiality, community participation, involvement in group discussions. Production of strategic solution-focused therapy sessions</p>
<p>Second session, Think of the things that you are doing in a troubled situation. Define the issue. Invite clients in one word to tell the problem, and turn that one word into a sentence. Turn the issue to achievable goals. Debate on the issue.</p>
<p>Third session, Summary of the Session: Reviewing the assignment and review of the previous session, Goal setting. Review Complaints Solution. Formulation of problem solving rings</p>
<p>Fourth session, Summary of the Session: Reviewing the assignment and review of the previous session, talk about the future, imagine a time in the future where you don't have the question that you are actually having. Use the art of exceptions and miracle questions. Find a positive story. Homework: Performing a session.</p>
<p>Fifth session, Summary of the Session: Review the assignment and review of the previous session, Explain the art of the key switch and use it. Use of scale technique. Homework: Do a session exercise.</p>
<p>Sixth session, Summary of the Session: Review the assignment and review of the previous session, Continue the art of the key switch and use it. Use of homework and demonstration techniques to use solution-oriented questions. Use a misguided argument and contradictory betting. Homework: Do a session exercise.</p>
<p>Seventh session, Summary and brief of the Session: Reviewing the assignment and reviewing the previous session, Use graded questions. Determine whether clients have achieved treatment goals.</p>

2-5. Ethical consideration

A solution-oriented psychotherapy workshop was held in the study of the control group for one day, for ethical

reasons. It should be noted that this article is the result of the first author's dissertation on the Ph.D. degree in Psychology approved by the Vice-Chancellor of Research, Islamic Azad University of

Ahvaz, Branch of Science and Research No. 2599561.

2-6. Inclusion and exclusion criteria

The criteria for joining the group, including being married, the commitment to attend all meetings until the end of the contract, and in particular the admission of individual counseling services throughout the company, were part of the treatment solution sessions. In addition to psychiatric and psychotropic drugs, the use of sedatives, alcohol, and narcotics, and more frequent history in psychiatric hospitals, was also considered to be cases of withdrawal from the study, which was requested as an individual report to the participants.

2-7. Data Analyses

Data were analyzed using SPSS-program version 25.0. It expressed quantitative data

as mean (standard deviation), and qualitative (percent) data. Multivariate analysis of variances (MANOVA) was used to test the study variables. $P < 0.05$ has been considered statistically significant. Before examining the results of multivariate analysis of variance, the assumptions of multivariate analysis of variance, ie Box and Levine tests, were examined. The condition for equality of intergroup variances is well observed. Therefore, it is possible to report multivariate analysis results.

3- RESULTS

In this study, according to **Table.2**, the majority of mothers (32.1%) were between 25 and 30 years of age and the higher education degree of mothers (44.6%) was a diploma.

Table-2: Describing demographic characteristics of sample individuals, n=14.

Demographic variable		Frequency	Percentage
Age	25 to 30 years	18	32.1
	30 to 35 years	15	26.8
	35 to 40 years	9	16.1
	40 to 46 years	14	25.0
Education	Lower than diploma	5	8.9
	Diploma	25	44.6
	Associate diploma	16	28.6
	MA. and above	10	17.9

In **Table.3**, the mean and SD for mental fatigue and quality of Life were (3.02 ± 0.103) and (2.03 ± 0.127) in pre-test, respectively. Moreover, the scores of mental fatigue (1.10 ± 0.699) and quality of

life were (3.31 ± 0.220) shown respectively in the post-test. Additionally, the values of skewness and kurtosis are all within the range of 2- to +2, suggesting that these scores were normal.

Table-3: Descriptive solution-based strategic intervention in pretest between both groups.

Groups	Variable	Mean \pm SD	Min	Max	Skewness	Kurtosis
Pre-test	Mental fatigue	3.02 ± 0.103	2.95	3.20	1.699	2.05
	Quality of Life	2.03 ± 0.127	1.62	2.40	-0.341	-0.388
Post-test	Mental fatigue	1.10 ± 0.699	1.00	1.20	0	-.364
	Quality of Life	3.31 ± 0.220	3.00	3.46	-0.151	2.07

SD: Standard deviation.

The mean scores of mental fatigue in the control and intervention groups before and after the intervention are shown in **Table.4**. The mean of mental fatigue and quality of life in the pre-test and post-test

of control and experimental groups were reported. The results show the scores of mental fatigue is decrease and quality of life is increase in the experimental group after training the secession treatment.

Table-4: Descriptive solution-based strategic intervention in post-test between both groups.

Groups	Variable	Mean \pm SD	Min	Max	Skewness	Kurtosis
Pre-test	Mental fatigue	2.62 \pm 0.08	2.60	2.9	1.74	1.74
	Quality of Life	2.07 \pm 0	2.08	2.12	0	0
Post-test	Mental fatigue	2.90 \pm 0	2.90	2.90	0	0
	Quality of Life	2.11 \pm 0	2.08	2.08	0	0

SD: Standard deviation.

According to the findings of **Table.5**, the score of mental fatigue in the intervention group decreased after the intervention training ($p < 0.01$). Moreover, the mean scores of depression in the control and

intervention groups before and after the intervention are reported in **Table.5**. Findings showed that the score of quality of life in the intervention group increased after the intervention training ($p < 0.01$).

Table-5: Covariance analysis of mind wandering and rumination in different treatment groups.

Groups	Variables	Sum of square	Degree of freedom	Mean of square	F	P-value	Eta
Post-test group	Mental fatigue	2.021	1	2.021	480.572	0.000	0.956
	Quality of Life	1.128	1	1.128	132.667	0.000	0.858
Post-test error	Mental fatigue	0.093	22	0.004			
	Quality of Life	0.187	22	0.009			
Post-test total	Mental fatigue	134.820	28				
	Quality of Life	216.998	28				

4- DISCUSSION

The aim of this study was to investigate the effectiveness of the strategic solution oriented therapy on fatigue and quality of life among mothers of children with autism spectrum disorder. The findings of this study showed significant strategic intervention on psychological fatigue and quality of life that is consistent with the many research results from Turns et al. (22), Lee et al. (29), Bravo-Benítez et al. (30), and Brockman et al. (31). Furthermore, the

results of the previous study indicated that caregivers may have experience concerns about their parental efficacy and these concerns may be affected their marital satisfaction (16). Caregiver burnout and caregiver burden are additional words that are commonly used to describe a state of physical, emotional, and mental fatigue that can be detectable with the ask to receive help from the others (7). Lee et al. (29) showed that the sleep problems of children with ASD might influence mothers' sleep. The strategic solution-oriented therapy is based on a social-

constructionist mechanism of change, in which the co-constructed dialog between clients and therapists offers the opportunity to construct new meanings of perceived reality. Nevertheless, strategic solution-oriented therapy is an adaptable solution to the behavioral process of transition in order to address the needs of families impacted by ASD (23). The review report analyzed evidence of its efficacy in all available controlled outcome trials of solution-focused short therapy. Of the 43 reports, 32 (74%) research studies reported major positive effects from this therapy; 10 (23%) reported positive patterns. The strongest evidence of the efficacy of solution-focused short therapy was seen in adult depression care, where four separate trials found solution-focused short therapy comparable to well-established traditional therapies (32-33).

Systematic clinical studies of children with ASD endorse the use of mother-mediated interventions (10-16, 34). The findings of the Pozo and Sarria showed that depression and anxiety were lower in parents of ASD than in parents of normal children. Different factors anticipated different measures of parental wellbeing, but the feel of coherence emerged as the essential predictive aspect for all parental wellness measures (35). Autism spectrum disorder has routinely reported significantly lower quality of sleep. Sleep patterns can also be problematic for the family. Children with ASD have trouble falling asleep and wake up early on occasion (36, 37). Therefore, mothers have to provide night-time care, which disrupts maternal sleep and also affects maternal health quality (38, 39). Previous research suggested that women are more distressed and depressed than men who care for their autistic children (39). García-López et al., who indicated mothers had documented higher rates of stress and anxiety than fathers. In addition, the

severity of ASD was a significant predictor of both progenitor stress and well-being, and family income was also associated with psychological well-being (40). Mother's particular distress relates mainly to practical problems (e.g., disrupted family relationships; social, leisure and job constraints; financial difficulties), and subjective burden, which refers to caregivers' psychological reactions (e.g., loss of hope, dreams, and expectations; depression; anxiety; embarrassment in social situations) (36-40). Seymour et al. have shown that maternal fatigue mediates the relationship between destructive child activity and maternal stress. Such findings suggest that these child behavioral issues can contribute to parental fatigue, which in turn can affect the use of ineffective coping mechanisms and increased stress (41). Correlation analyzes showed that parental stress was positively associated with children's ASD symptoms and their behavioral issues. On the other hand, parental stress was negatively associated with the interaction management and social functional support identified by the mothers (42).

In the previous studies compared to mothers of typically developing children, the mothers of children with ASD reported substantially higher fatigue. The factors associated with high levels of fatigue were poor quality of maternal sleep, a strong need for social support, and a low level of physical activity. Fatigue was also closely related to other facets of well-being, including fatigue, anxiety, and depression, and lower parental effectiveness and satisfaction (43). In a study, fathers showed a lower rate of fatigue than mothers. Fatigue was associated with mental and emotional, physiological, and environmental variables, including child-based environments, while child-based environments were predictive of fatigue in mothers, not fathers. In both mothers and fathers, exhaustion has been negatively

associated with parental self-efficiency and parental satisfaction (44). Family quality of life for a child with special needs is no surprise that autism not only affects a person with a disability but may have a much greater impact on the quality of life of the entire family in certain situations (45). Although parents of children with developmental disabilities accommodated their children's desires early on, for example, by restricting their social habits and changing family practices, their health-related quality of life was once adversely affected by a child with ASD (46). Quality of life research focuses on the relationship between the person and the environment. It mainly explores the well-being of individuals by examining factors such as family conditions, social support, recreational practices, personal values, job opportunities, and prosperity (47). There is some evidence that the most important factors in the quality of life in the family can differ between mothers and fathers of children with autism. A systematic review of autism parents of studies showed that autism mothers usually rate their individual quality of life lower than fathers with autism children (48). Additionally, Dardas and Ahmad, found child-challenging conduct to be a powerful indicator of individual quality of life for mothers, but not fathers of autistic children (49). To explain the effect of strategic solution-oriented therapy mechanism explores the abilities people bring to the change process, and how they can be implemented. The assessment seeks to help people imagine how they want their lives to be, recognize moments when the solution (or part of it) has already happened, and find out what's needed to make the solution work and keep it working. Clients are encouraged to pursue approaches in solution-focused counseling that fit their own mindset. The importance of meaning as an effect on individual behavior, rather than a disorder within the individual is stressed. Furthermore,

solution-focused counseling explores how subtle shifts in transactional ways impact the system (50). Three specific themes included primary studies the importance of social support to other parent caregivers, the efficacy of parent training in stress reduction techniques and the development of problem-solving skills, solution-focused therapy, and the importance of providing appropriate and reliable information to parent caregivers on ASD and accessible resources and support services; effectively integrated into approaches that clinicians and their parent caregivers may use to improve not only the psychological well-being of parent caregivers but also to impact the well-being of the child impacted by ASD and other family members. Perhaps one of the most positive elements recognized in the synthesis observed to affect the well-being of mothers' caregivers was once to interact with different mothers' caregivers, such as the parenting social assist group. Networking with different mothers' caregivers helped mothers to comprehend that they have been now not alone in the difficulties they confronted and supplied mothers with the precious affirmation of their personal significance and experience (7).

4-1. Limitations of the study

Numerous study limitations should be noted. A variety of contexts among the evaluation points for quantitative measures is the limitation of research design. The time of the school year and the semester in which the intervention was presented may have an impact. Employment, student understanding of stress and health, attractiveness, and the lasting impact of the intervention. Also, this study was conducted in Tehran, so in generalizing its results to other areas with caution and it is recommended to confirm the results of the findings of this study, the present study should be conducted on the same community in other cities.

5- CONCLUSION

The results of this study support the conclusion that strategic solution-oriented therapy is an appropriate and potentially effective therapeutic option for mothers raising a child with ASD. It has been established that strategic solution-oriented therapy is an important treatment option for parents. The majority of participants in this study decreased their fatigue and increased their quality of life assessment ratings. Parents offering continuous treatment to children affected by ASD are at greater risk for negative mental health effects such as psychological stress, fatigue, and depression. Training recommendations for use by clinicians and parent caregivers of children with ASD will discuss the need to communicate with other related parent caregivers and improve their general problem-solving skills, self-examination, and sense of meaning as caregivers. Practitioners who discuss the state of mental health and psychological well-being of the parent will enhance the wellbeing-related quality of life of the parent childcare workers, their families, and their child with ASD. The implementation of the guidelines proposed in this Integrative Synthesis will potentially lead to greater / better cooperation with child care providers, as well as enhanced quality of life for parents and their children.

6- ACKNOWLEDGEMENTS

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7- CONFLICT OF INTEREST: None.

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