

Effectiveness of Transactional Analysis on Parental Stress of Mothers with Autistic Children

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Abstract

Introduction: Autism is a developmental disorder that is characterized by challenges in social interaction. The aim of this study was to evaluate the effectiveness of transactional analysis on parental stress of mothers with autistic children.

Materials and methods: The research method was quasi-experimental using pre-test and post-test design with control and intervention groups. The statistical population of this study was all mothers of autistic children living in Isfahan (Isfahan, Iran) in total of 30 samples were selected by purposive sampling method and were randomly assigned to intervention and control groups. Both groups were first pretested by the Berry and Jones (1995) Parental Stress Scale. Then, only the mothers of the intervention group underwent sessions of group therapy based on the transactional analysis. After sessions of minutes on the intervention group, both groups were re-evaluated by the same tests. The results were analyzed by SPSS software and covariance analysis.

Results: The results of the current study indicated that parental stress scores in the intervention group was reduced significantly in the post-test compared to pre-test ($P < 0.05$). Therefore, the analysis of transactional has been able to significantly reduce the mean scores of parental stress in mothers of children with autism.

Conclusion: Considering the effectiveness of transactional analysis on parental stress of mothers with autistic children, therefore, counseling through transactional analysis can be considered as a support tool for mothers with autistic children.

Keywords: Transactional analysis • Parental Stress • Autistic Children

Introduction

The Autism Spectrum Disorder (ASD) is a heterogeneous, multi-factorial, developmental disability in which an unusual pattern of development takes place during infant and toddler years characterized by difficulties with social interaction which affects verbal and nonverbal communication [1]. Autism Spectrum Disorders are thought to be relatively common, with analyses estimating 1%-2% in the population could meet diagnostic criteria [2]. Although the number of people being diagnosed with autism is increasing, however many are still missed by healthcare services. In addition to affecting the person with autism, this disorder also leads to a series of family and social problems. Parenting a child with autistic disorder is expected to cause an enduring stress and is a demanding responsibility for the parents [3]. Parents of children with autism due to spend more time with the sick child, they spend very little time with other family members, and as a result, they often feel confusion, emotional coldness, and guilt in their married life. Previous studies have shown that parents of children with autism spectrum disorders are more exposed to stress and anxiety due to having a disabled child than parents of children with other psychological disorders [4]. The presence of a disabled child, due to the negative impact on the mother, threatens her physical and mental health [5]. Parenting stress is one of the types of stress experienced by mothers of children with autism. Previous studies has shown that parenting stress in mothers of autistic children in both the parenting and child domains, as well as in total parenting stress, is significantly higher than in mothers with normal child. This stress can be related to the child, parent or community. The ambiguous nature of autism, child characteristics, concerns about persistence, and low community acceptance can contribute to this stress [6].

According to, the items of parenting stress are divided into two categories including child characteristics and parental characteristics [7], which interact

with each other and with external variables such as environmental stressors. Influential factors related to the child's characteristics include adaptability, extravagance, mood, attention-deficit hyperactivity, acceptance, and reinforcing. Parent-related characteristics include depression, parental attachment, relationship with spouse, social isolation, mental health, role restriction, and a sense of parenting competence that affect parenting stress in interacting with child characteristics and external factors. Based on the findings of [8], family-integrated autism treatment program had a significant effect on reinforcement, mood, acceptability, adaptability and total stress score of the child. Also, it showed significant effect on competence, depression, social isolation, attachment, role restriction, parental health, and total score of parental stress, and also on total score of parent-child stress [9]. The results of showed that a positive parenting group education program has significantly reduced parenting stress conducted a study entitled "parenting stress in mothers of children with autism mediated by child behavioral problems" [10]. In this study, 52 mothers were studied who completed the Abidin's parental stress questionnaire and children behavioral problems [7]. The results showed that mothers of children with autism experience parenting stress and correlation analysis showed that there is a positive and significant relationship between the severity and symptoms of child behavioral disorders and parenting stress.

Gobrial showed that having a child with autism is stressful for mothers [11]. Inadequate education and health care have also been the most important issues for these mothers reported that parents of children with autism spectrum disorder showed high levels of stress, anxiety, and depression also showed a significant relationship between parenting stress with the severity of autism symptoms and resilience [12,13]. The results of another study in this field showed that parents of children with autism were more stressed than other groups [14]. Based on the literature autism is one of the most famous neuro-developmental disorders and increases parental

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Received: 11 June, 2021; **Accepted:** 25 June, 2021; **Published:** 02 July, 2021

stresses. On the other hand, decrease of parental stress has positive effect on child response to treatment. Therefore, the present study aimed at evaluating the effectiveness of transactional analysis on parental stress of mothers with autistic children.

Materials and Methods

Participants

The aim of this study was to evaluate the effectiveness of transactional analysis on parenting stress in mothers of autistic children. The research method was quasi-experimental using pre-test, post-test design with control and intervention groups. The statistical population of this study was all mothers of children with autism living in Isfahan in 2020. Among them, 30 people were selected by purposive sampling method after considering the inclusion and exclusion criteria and were randomly assigned to the intervention and control groups. First, both groups were pre-tested by parenting stress questionnaires, and then 10 sessions of group counseling were conducted with Transactional Analysis (TA) virtual method for the intervention group. The control group did not receive any intervention during this period. After 10 sessions of 60 minutes, both groups were re-evaluated by post-test (Table 1).

Research tools

Parental stress scale: This self-report questionnaire was developed by this questionnaire has 18 items that measure the level of parental stress in relation to their children [15]. The 5-point Likert scale in the strongly agree to strongly disagree range was used for scoring. believe that this scale has a validity of above 0.75 and also reported the reliability of this scale as 0.83 with Cronbach's alpha method and 0.81 after 6 weeks of retesting [16]. Validity coefficient, reliability coefficient, retest four weeks later and Cronbach's alpha coefficient of this questionnaire were reported in the study of as 0.84, 0.74, 0.7 and 0.75, respectively [17].

Statistical analysis: The obtained data were analyzed by SPSS software and covariance analysis. P-value less than 0.05 were considered significant.

Results

Demographic characteristics of the participants were presented in Table 2. The mean age of the intervention and control groups was 38.60 ± 5.36 and 36.27 ± 6.33, respectively. In addition, the minimum and maximum age of the subjects was 28 and 47 in the intervention group and 28 and 44 in the control group. The results of the present study showed that the distributions of education level were almost similar in the intervention and control groups.

Session	Session title	Description, content and implementation method
1	Brief introduction to the theory of TA	Introducing members, stating goals, explaining the theory of TA and the three parts of human personality (parent, adult, child) by drawing their shape and application in individual life and interpersonal relationships
2	Familiarity with different states of personality dimensions of parent and child	Explain about "child ego" and its different states, ie, "normal child", "adapted child", and "rebellious child", and different states of "parent ego", meaning "supporting parent" and "controlling parent", by drawing a figure and assignment for the next session
3	Familiarity with how to draw a personality chart and the skill of blocking the parent	Examining the assignments of the previous session and how to draw a diagram of ego states, introducing members to the skills of blocking the parent and strengthening the "adult" and presenting the assignment for the next session
4	Familiarity with personality disorders	Familiarity of members with personality disorders, ie rejection and infection by drawing shapes and presenting homework for the next session
5	Training of reciprocal relationships	Examining the tasks of the previous session, teaching the types of reciprocal relationships, iecomplementary, crossed and latent, by giving an example and presenting the task for the next session
6	Training the concept of stroking behavior and examining its types	Examining the homework of the previous session, training the concept of stroking behavior and its types (verbal and non-verbal, positive and negative, conditional and unconditional) and presenting the homework for the next session
7	Familiarity with the play or script of life	Examining the assignments of the previous session, expressing the nature of the script of life and its types (the nature of the script of the winner, loser and non-winner) and the process of their formation by providing an example and providing an assignment for the next session
8	Deterrent and pusher training	Examining the assignments of the previous session, examining the life script messages (deterrents and pusher) and their impact on people's relationships and lives by providing numerous examples and assignments for the next session
9	Life positions training	Review of the assignments of the previous session, teaching the four positions of life 1. I'm not OK and you are OK. 2- I'm not OK and you are not OK. 3- I'm OK and you are not OK. 4- I'm OK and you are OK. Answer members' questions and present assignments for the next session
10	Time management training	Examining the assignments of the previous session, teaching the concepts of organizing time, classifying psychological games, how to deal with games and offering solutions to break the flow of games and increase intimacy, emphasizing the application of concepts in life and extending it to real areas of life. Run the post-test.

Table 1. Protocol of group counseling sessions by Transactional Analysis (TA) method adapted from Eric Berne, 1970, Transactional Analysis (15).

	Item	Group	
		Intervention (n=15)	Control (n=15)
Mean age (year)	Min.	22	28
	Max.	46	47
	Mean	36.27	38.60
	SD	6.33	5.36
Education level (Frequency %)	Under diploma	3.3	16.7
	Diploma	16.7	10.0
	Bachelor	16.7	16.7
	Master of Science	6.7	6.7
	PhD	6.7	0

Table 2. Mean age and frequency distribution of mother's education level.

As shown in Table 3, the distribution of scores is normal in all research variables. Also, the results of Levin test on the assumption of equality of variance showed that the variance of the groups was equal; therefore, parametric tests were used to analyze the data.

Variable	Group	Statistic	Freedom degree	P-value
Parental stress	Intervention	0.156	14	0.059
	Control	0.148	14	0.078

Table 3. Results of Kolmogorov-Smirnov test on the default normality of parental stress scores

The mean and standard deviation of parenting stress scores in the intervention and control groups in the two stages of pre-test and post-test are presented in Table 4. The results of the current study indicated that parental stress scores in the intervention group was reduced significantly in the post-test compared to pre-test.

SD	Mean	Stage	Group	Variable
Parental stress	Intervention (n=15)	Pre-test	56.73	5.52
		Post-test	36.80	12.31
	Control (n=15)	Pre-test	52.26	9.16
		Post-test	49.20	8.96

Table 4. Mean and standard deviation of parental stress scores in the intervention and control groups.

Source	Sum of squares	Freedom degrees	Mean Square	F	P-value
Pre-test	791.71	1	791.71	8.7	0.006
Group	1669.76	1	1669.76	18.34	0.001
Error	2457.08	27	91.03		
Total	59872.0	30			

Table 5. The effectiveness of transactional analysis on parenting stress of mothers with autistic children.

Discussion

Parental stress is one of the types of stress experienced by mothers of children with autism. Parental stress results from a perceived mismatch between parental demand and individual resources, which can be experienced in several areas of life related to parenting [7]. Since the stress experienced by mothers of children with autism spectrum disorder can affect their ability to effectively raise and respond to the needs of these children, recognizing the parental stress among the mothers of children with autism and their related factors could help the mental health professionals to plan and implement effective interventions for reducing these stresses and help these parents. In fact, obtaining more information about the thoughts, feelings, and experiences of such parents would play a special role in designing more effective and specific interventions for mothers of children with autism spectrum disorder [18]. Abidin believes that parent-child characteristics, along with external situational variables and stressful life factors, are the reason for the possible increase in parenting dysfunction and stress [7]. Parenting stress can lead to reduced parental mental health and can also have a negative impact on children's emotional and behavioral development and long-term effects on children's health [19]. Previous studies have shown that parenting stress in mothers of autistic children, in both parenting and child domains, as well as in total parenting stress is significantly higher than in mothers of normal child. This stress can be related to the child, parent or community. The ambiguous nature of autism, child characteristics, concerns about continuing conditions, low social acceptance, even the unacceptable reaction of other family members to the autistic child and failure to receive social support can all contribute to this stress [6].

Mothers with autistic children can reduce their parenting stress by focusing on the type of relationship, emphasizing adult behavior and avoiding extreme compassion, taking responsibility for tasks, distributing

Univariate Analysis of Covariance (ANCOVA) test was used to evaluate the effectiveness of transactional analysis on parenting stress of mothers with autistic children (Table 5). The results of this test showed that the difference was significant for the post-test scores of the intervention group ($P < 0.05$).

Based on the results of the above table, there is a significant difference between the two groups in parenting stress scores ($P < 0.05$). Therefore, the analysis of transactional has been able to significantly reduce the mean scores of parental stress in mothers of children with autism. Considering that in the present study, about 40% of the differences in the dependent variable are related to the effect of the independent variable and on the other hand, the statistical power of 0.98 indicates the adequacy of the sample size, thus it can be concluded that the transactional analysis has an positive effect on reducing the parenting stress of mothers with autistic children.

tasks fairly, mutual understanding, and avoiding any self-centeredness. Thus a good relationship can put the whole family in the "I'm ok, you're ok" situation. A mother who is free from the inner quarrel of her "parent-child" and free from the feeling of "I am not ok" can be a stroking mother. Since the founding of transactional analysis by Eric Berne in the 1950s, many psychometric instruments have been developed to operationalize TA concepts [20]. Therefore, a transactional analysis approach that provides simple and understandable methods for establishing proper communication between parent and child can reduce parenting stress. The results of the present study confirm this relationship. Consistent with the results of the current study, other studies have also reported this relationship [8,9].

Conclusion

Considering the effectiveness of transactional analysis on parental stress of mothers with autistic children, therefore, counseling through transactional analysis can be considered as a support tool for mothers with autistic children.

The research method was quasi-experimental using pre-test and post-test design with control and intervention groups. The statistical population of this study was all mothers of autistic children living in Isfahan (Isfahan, Iran) in total of 30 samples were selected by purposive sampling method and were randomly assigned to intervention and control groups. The aim of this study was to evaluate the effectiveness of transactional analysis on parenting stress in mothers of autistic children.

Research Limitations and Suggestions

This study was conducted in Isfahan among mothers with autistic children; therefore, the generalization of its results to other communities

should be considered according to different conditions. In this study, direct access to the statistical sample was impossible due to the prevalence of coronavirus, and the research program was performed using virtual method. It is suggested that due to the multiplicity of psychological problems of parents with autistic children, this intervention method be used to improve other problems of these parents.

Author's Contribution

All authors designed the study, collected the research data, analyzed the data, revised the manuscript, and approved the final version.

Conflict of Interest Statement

No conflict of interest has been declared by the authors.

Acknowledgement

The authors would like to thank all the mothers who participated in this study.

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How to cite this article: Heyrat, Atefeh and Fatemeh Mohammadi Fesharaki. "Effectiveness of Transactional Analysis on Parental Stress of Mothers with Autistic Children." *Clin Schizophr Relat Psychoses* 15:3(2021).
Doi: 10.3371/CSRP.FFHA.200721.