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# Effectiveness of Stress Management Training on Sensation Seeking, Depression and Stress among Mothers of Autistic Children

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**ABSTRACT:** The aim of the present study was to investigate effects of stress management training on sensation seeking, depression and stress in mothers of autistic children that method was done using quasi experimental method by planning pretest and posttest of control group. Sample of this study consisted of 34 subjects that were selected by sampling available method and randomly divided into two groups including 17 people as control and experimental groups. Test groups affected by education of stress management. Data before and after training using a questionnaire of Zuckerman sensation seeking, Beck's depression and Cohen's stress has been collected and its internal validity using Cronbach's alpha were approved. In order to analyze the data, statistical test of covariance was used. Results of post-test of sensation seeking, depression and stress showed that training stress management influence sensation seeking, depression and stress of mothers of autistic children and cause to reduce depression and anxiety and increase the sensation seeking of mothers of autistic children.

**Key words:** Stress Management, Autistic Children, Sensation Seeking, Depression, Stress

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## INTRODUCTION

Research has shown that among the various factors that affect in foster and healthy personality of children and youth, parents and children mutual effect and how behavior and relationship of child and parents are considered as the most fundamental elements (Navabi Nejad, 1991). According to the revised forth text of diagnostic and statistical handbook of mental disorders, autistic disorder is one of the pervasive developmental disorders group that by persistent impairment in reciprocal social interaction, communicational delay or deviation and limit relational stereotype model is obvious. Characteristics of this disorder and abnormal functions should be exist to 3 years old (Kaplan and Sadouk, 2008). Late and difficult diagnosis and appear symptoms after a natural period of normal child growth, lack of definitive and effective treatment and not so good prognosis can impose a great stress on families and parents. Parents' initial reaction to this could be very different from, but most of these reactions affected by the different beliefs of their parents and their environment with a wide range of general denial of the issue and don't bear it and extreme follow-up for the treatment are different (Navabi Nejad, 1991).

Needs of mothers of autistic children has risen from the problems that from the moment of birth and with a diagnosis of autism are faced by them, they may have experience different modes such as depression, anxiety and stress and show adverse reactions. Although the incidence of these conditions has several reasons, but most scholars agree that the lack of sufficient knowledge about autism is one of the most important factors in adverse reactions (Rezaie, 1998).

Studies of Belcher (2005), Burke et al. (2007), Salisbury (2005), Baker et al. (2002), Al Ain and Aboudhaby (2006), Myers (1998), Abdolrahmani et al. (2012) and Rabi'ei et al. (2012) suggest that the mothers of autistic children compared with fathers more involved in child behavioral problems and experience more stress and crisis and need more support, because the mother is the first person who communicates directly with the child. Feelings such as guilt and frustration and deprivation caused by lack of abnormal children can cause withdrawal of the mother and lack of interest in establish relationships with environment and also the lowering of self-esteem and a sense of inferiority and valueless and sorrow of mother that its resulting is a low self-esteem, depression and mental health of the mother (Famboun, 2003). In recent years many studies have been done on the etiology of autism that most research has focused on the origin of biological and neurological in brain. Although the specific genes that are associated with autism has not identified and several theories of autism etiology (theory of psychogenic, theory of Biogenic and cognitive theory) about autism stated that no one has proof accurately (Kakavand, 2009) and researchers disagree about the role of genetics in autism etiology and combination of multiple genes are cited as the cause of disorder

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(Fambon, 2003), but due to that the Autistic disorder is a kind of disability which damages to the normal growth in many areas of functional (Hardman et al., 2012) and followed by consequences such as sensation seeking, depression and stress, the need for care - support planning and awareness of strategies for coping with sensation seeking, depression and stress to deal with children who have this disorder, doing this batch of research is needed, because people with a high sensation seeking better able to tolerate an increase in arousal, and these people are better than those who have less tolerance for arousal cope with stress and exposure to the different stresses causes to a reduction of sensation seeking of people. On the other hand, researches in this area have focused more on depression and mental pressure and were not found the research that examined the relationship between training stress management on sensation seeking. Accordingly, the researcher believes skills training of stress management is related to stress reduction and increased sensation seeking of mothers with autistic children. Now given that to deal with any kind of stress to learn the four categories of the consciousness skills, acceptance, manner, and the action are required (Lynden, 2005) The main objective of this study is that knowledge and education about stress management how much can have a role on reduce depression, reduce stress and increase sensation seeking of mothers of autistic children? Hence, in this study following three hypotheses about have been surveyed and studied.

(1) Stress management training is effective on depression in mothers with autistic children.

(2) Stress management training is effective on thrill-seeking mothers of autistic children.

(3) Stress management training is effective on stress of mothers of autistic children.

## MATERIAL AND METHOD

### Population, sample and sampling

The aim of this study was to investigate the quasi-experimental research method with plan of pre-test and post-test with control group. The population of this study consisted of all mothers of autistic children (n = 100), who in 2013 were covered by Welfare Offices of the cities of Amol, Babol and Babolsar. In this study, to select subjects an available sampling method was used, which cause severe problems in access to those 17, sampling available method in the experimental group and 17 patients in the control group. During the first phase, the subjects were randomly divided into control and experimental groups and depression, stress, and sensation seeking mothers of autistic children in both groups were actually measured. In the next step, test group is affected by the education of stress management, while the control group did not receive any education. Then, during 8 sessions 90-minutes training, depress test of Beck, Marvin Zuckerman's sensation seeking and parental stress for each experimental group were administered. Criteria for inclusion of education were no having a severe psychiatric disorder and psychosis according DSMIV-TR, the education level higher than the guidance school degree and informed complete the form of consent.

### Research tools and methods of data collection

In this study, to measure the variables, the inventory of depression of Beck, Marvin Zuckerman sensation seeking and parental stress were used.

**A) Beck Depression Inventory (BDI):** This questionnaire was developed by Beck and consists of 21 items and measure depressive symptoms of a person that has experienced during the past two weeks and has been adjusted in form of a four-point Likert. Results of studies conducted by Dobson and Mohammad Khani (2005) showed the reliability of inventory by retest ranging from r = 0.73 to r = 0.93 was obtained. The correlation coefficient between the questionnaire and the Hamilton Depression Test 6.0 has been reported. In addition, the results of obtained the operating analysis for the three factors and its operating weight is 64.43, 43.37 and 49.23 have been reported, respectively. To calculate convergent validity coefficient to determine the validity of structure, Brief Symptom Inventory BSI has been used that the reliability coefficient is equal to 0.87. The correlation coefficients of each item with the total inventory has been calculated 0.68 and coefficients resulted by retest of the questionnaire was evaluated 0.94 (Dobson and Mohammad Khani, 2005).

**B) Zuckerman sensation seeking scale:** Zuckerman has been proposed various forms to appoint sensation seeking of the persons. Its fifth form for the first time in our country was standardized by Mahvi Shirazi to adapt the items of this scale with the Iranian culture. This inventory consisted of 40 items, which has been set in form of terms of A and B. the variance of all of questions in the standardized instrument is equal to 8.5772, total variance of the test 28.92, average of the test 21/02, standard deviation of the scale 6.24, a total validity of the test 0.781, and total error of the test 2.92 (MAhvi Shirazi, 2008).

**C) Cohen's Perceived Stress Inventory:** Perceived Stress Inventory was developed in 1983 by Cohen and colleagues and has 14 questions and was

used to assess the public perceived stress in the past month and measure thoughts and feelings of stressful events, control, coping, deal with stress and experienced stress. (Kras and Marnat, 2003, translated by Nikkhooi and Sharifi, 2007) This questionnaire has been widely used in different countries and for this reason has been translated for different languages and has been used in many countries. Cronbach's alpha for the 14-item version in the three studies 0/84, 0/85 and 0.86 have been obtained (Kras and Marnat, 2003, translated by Nikkhooi and Sharifi, 2007).

## RESULTS

### A) Descriptive findings

Frequency distribution of individuals by age (Table 1) shows the highest frequency and percentage of age in both the control and experimental groups composed of 30 to 39 years (47 percent and 41 percent). Then, frequency of both groups of 20 to 29 years and 40 to 49 years which for both control and experimental groups are (24% and 29%) and (29% and 24%) and over 50 years (0% and 6%).

**Table 1.** Frequency by age in the groups of control and test and total sample

| Age Index | | 20 to 29 | 30 to 39 | 40 to 49 | More than 50 years |
|---|---|---|---|---|---|
| Control | Frequency | 5 | 7 | 4 | 1 |
| | Percent | 29 | 41 | 23 | 6 |
| Experiment | Frequency | 4 | 8 | 5 | 0 |
| | Percent | 24 | 47 | 29 | 0 |

### B) Inferential results

In this study, stress management as the variable of test and stress, anxiety and sensation seeking are considered as criterion variables.

**First research hypothesis:** stress management training is effective on depression in mothers of autistic children. To examine this research hypothesis, performance of the groups (control and experimental) as pretest and posttest of depression, the analysis of covariance test was used. But before running out analysis of covariance were ensured to set assumptions.

According to Table 3 one-way intergroup analysis of covariance to compare the effectiveness of skills strategies intervention coping with reducing mothers' depression of autistic children was done. Results showed after modification of the pre-test scores, there is a significant difference between the two groups in terms of the depression scores after intervention (p=0.0005 and F (1, 31) = 62.16) and square of Ita 0.67, there is a strong relationship between pre-intervention and post-intervention scores on depression.

**Second hypothesis: stress management training affect the thrill-seeking of mothers of autistic children**

According to Table 4 one-way intergroup analysis of covariance to compare the effectiveness of skills strategies intervention coping with stress on sensation seeking enhancement of mothers of autistic children was done. Pilot study was done to ensure that the assumptions of normality, linearity, homogeneity of regression slopes and reliability of measurement tool be establish. After modify the pre-test scores, a significant difference between the both groups in terms of scores of sensation seeking was observed after intervention, F (1, 31)=11.89 p =0.002 and square of Ita 0.28, has been demonstrated a strong relationship between pre-intervention and post-intervention scores on sensation seeking .

**Third hypothesis: stress management training on stress of mothers with autistic children**

One-way intergroup analysis of covariance was done to compare the effectiveness of skills strategies intervention coping with stress to reduce stress of mothers of autistic children. The amount F with degree of freedom 1/39 value 14/49 was obtained. Since the amount of F observed is less than p= 0/05 and the reported square of Ita 0/61 can be concluded that there is a strong relationship between the pre-intervention and post-intervention in stress variable.

**Table 3.** Analysis of covariance result of posttest of depression

| Source | Total square | Degrees of freedom | Mean square | F | Significant | Square of Ita |
|---|---|---|---|---|---|---|
| The modified model | 3669.57 | 2 | 1834.78 | 213.3 | . 000 | . 932 |
| Without intervention | 6.63 | 1 | 6.631 | . 771 | . 387 | . 024 |
| Pretest | 1742.04 | 1 | 1742.04 | 202.51 | . 000 | . 867 |
| Group | 534.76 | 1 | 534.763 | 62.16 | . 000 | . 667 |
| Error | 266.66 | 31 | 8.602 | - | - | - |
| Total | 24198 | 34 | - | - | - | - |
| The total amended | 3936.23 | 33 | - | - | - | - |

**Table 4.** Analysis of covariance result of sensation seeking post-test

| Source | Total square | Degrees of freedom | Mean square | F | Significant | Square of Ita |
|---|---|---|---|---|---|---|
| The modified model | 245.79 | 2 | 122.89 | 13.301 | . 000 | . 462 |
| Without intervention | 103.03 | 1 | 103.03 | 11.151 | . 002 | . 265 |
| Pretest | 238.26 | 1 | 238.26 | 25.786 | . 000 | . 454 |
| Group | 109.93 | 1 | 109.93 | 11.898 | . 002 | .277 |
| Error | 286.44 | 31 | 9.24 | - | - | - |
| Total | 13578 | 34 | - | - | - | - |
| The total amended | 532.23 | 33 | - | - | - | - |

**Table 5.** Covariance analysis after stress test

| Source | Total square | Degrees of freedom | Mean square | F | Significant | Square of Ita |
|---|---|---|---|---|---|---|
| The modified model | 793.44 | 2 | 396.72 | 24.57 | . 000 | .613 |
| Without intervention | 190.82 | 1 | 190.82 | 11.82 | . 002 | . 276 |
| Pretest | 95.91 | 1 | 95.91 | 5.94 | . 021 | . 161 |
| Group | 793.29 | 1 | 793.29 | 49.14 | . 000 | . 613 |
| Error | 500.44 | 31 | 16.14 | - | - | - |
| Total | 20782 | 34 | - | - | - | - |
| The total amended | 1293.88 | 33 | - | - | - | - |

## DISCUSSION AND CONCLUSION

The aim of this study was to evaluate the effectiveness of stress management training program on depression, stress and sensation seeking of the mothers of autistic children. According to study of Narimani et al. (2007), mothers of autistic children had lower mental health and in terms of depression, anxiety, aggression, phobia and psychosis, there are significant differences with the mothers of normal children and the necessity of performing such research is clear. The results of this study show stress management training has been cause to an increase in the sensation seeking and reduction of depression and stress of Mothers of autistic children. These results is consistent with the results of studies of Abdolrahmani et al. (2012), Rabiee et al. (2012), Cheemeh et al. (2012), Rabiee (2011) and Riahi et al. (2013) who found that different programs of training influence performance of mothers of autistic children**.**

Cognitive and behavioral treatment of family stress management predicate as stress management treatments that focus on cognitive-behavioral approach. Stress management increases the ability to reduce stress and cope effectively with stressful situations. The intervention consists of elements such as raising awareness about stress, relaxation training, identification of dysfunctional thoughts, cognitive restructuring, problem solving training, assertiveness skills training, anger management, self-management and planning of activities (Linden, 2005). Most of researches in this field are focused on the impact of stress management training in reducing stress, anxiety and depression in mothers of autistic children, while in the study In addition to the above variables, examines component of sensation seeking and pointed out that the stress management training causes to increase thrill-seeking of mothers who have autistic children. Accordingly, has proposed to the staff of the Social Welfare organization and Special Education to hold stress management training courses to know and use parents of children with special needs to use correct of coping with stress.

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