

THE EFFECTS OF STRESS MANAGEMENT PROGRAM FOR
MOTHERS OF CHILDREN WITH AUTISM

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ABSTRACT

THE EFFECTS OF STRESS MANAGEMENT PROGRAM FOR MOTHERS OF CHILDREN WITH AUTISM

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The purpose of the present study was to prepare a Stress Management Program for the mothers of children with autism and to evaluate the effects of the program on depression, anxiety, and suicidal probability. It was hypothesized that the mothers of children with autism who attended the Stress Management Program would have lower depression, anxiety and suicidal probability whereas there would be no change in the depression, anxiety, and suicidal probability of mothers of children with autism who did not get any treatment. The participants of the study were 44 mothers of children with autism from Uyum Special Education Center and Ilgi Special Education Center. The data were gathered by administering four instruments; Beck Depression Inventory, Beck Anxiety Inventory, Suicidal Probability Scale, and Demographic Information Form. Repeated Measures Analysis of Variance Technique was used to analyze the data. The findings of the study indicated that

there was a significant decrease in depression levels of mothers of children with autism after the Stress Management Program whereas anxiety and suicidal probability did not change significantly as a function of the Stress Management Program. For the mothers of children with autism who did not get any treatment, it was indicated that there were no difference in depression, anxiety and suicidal probability. The results were discussed within the context of the relevant literature.

Keywords: Stress Management, Depression, Anxiety, Suicidal Probability, Mothers

ÖZ

OTİZM TANISI ALMIŞ ÇOCUKLARIN ANNELERİNDE STRESLE BAŞA ÇIKMA PROGRAMININ ETKİSİ

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Bu çalışmanın amacı, otizm tanısı almış çocukların annelerine yönelik bir Stres Yönetimi Programı hazırlamak ve programın depresyon, kaygı ve intihar olasılığı üzerindeki etkisini değerlendirmektir. Herhangi bir uygulamaya tabi tutulmayan annelerin depresyon, kaygı ve intihar olasılıklarında herhangi bir değişiklik olmazken, Stres Yönetimi Programına katılan annelerin derpesyon, kaygı ve intihar olasılıklarında bir düşüş olması beklentisi bulunmaktadır. Katılımcılar Uyum Özel Eğitim Merkezi ve İlgi Özel Eğitim Merkezi'nden 44 otizm tanısı almış çocuk annesidir. Bilgiler dört ölçeğin dağıtımı sonucunda elde edilmiştir; Beck Depresyon Envanteri, Beck Kaygı Envanteri, İntihar Olasılığı Ölçeği ve Demografik Bilgi Formu. Bilgilerin analizi için Tekrarlı Ölçümler Varyans Analizi kullanılmıştır. Elde edilen sonuçlar, Stres Yönetimi Programından sonra otizm tanısı almış çocukların annelerinde depresyonda anlamlı bir düşüş olurken kaygı ve intihar olasılıklarında

değişiklik olmadığını göstermiştir. Herhangi bir uygulamaya tabi tutulmayan anneler için depresyon, kaygı ve intihar olasılığında bir farklılık olmadığı görülmüştür. Sonuçlar ilgili literatur çerçevesinde tartışılmıştır.

Anahtar Kelimeler: Stres Yönetimi, Depresyon, Kaygı, İntihar Olasılığı, Anneler.

To My Parents, Gönül and Nizamettin Sevim

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TABLE OF CONTENTS

ABSTRACT.....	iv
ÖZ.....	vi
TABLE OF CONTENTS.....	x
LIST OF TABLES.....	xii
CHAPTER	
1. INTRODUCTION.....	1
1.1. Stress, Depression, Anxiety and Suicidal Probability.....	2
1.1.1 Stress.....	2
1.1.2 Depression.....	5
1.1.3 Anxiety.....	6
1.1.4 Suicidal Probability.....	7
1.2 Women, Depression, Anxiety and Suicidal Probability....	10
1.3 Stress Management Programs.....	11
1.4 Autism and Stress.....	15
1.4.1 Disabled Children and Parental Stress.....	15
1.4.2 Autism and Parental Stress.....	17
1.5 Significance and Purpose of the Study.....	23
2. METHOD.....	26
2.1 Participants.....	26
2.2 Instruments.....	28
2.2.1 Beck Depression Inventory (BDI).....	28
2.2.2 Beck Anxiety Inventory (BAI).....	29
2.2.3 Suicidal Probability Scale (SPS).....	29
2.2.4 Demographic Information Form.....	30
2.3 Procedure.....	30
2.4 Training Material.....	32
2.5 Data Analysis.....	33
3. RESULTS.....	35
3.1 Results Concerning the Assessment of Stressors of Mothers of Children with Autism.....	35

3.2 Descriptive Characteristics of the Variables.....	36
3.3 Results Concerning the Effects of the Stress	
Management Program	38
4. DISCUSSION.....	44
4.1 Literature and the Results of the Study.....	44
4.2 Limitations and Shortcomings of the Study.....	51
4.3 Recommendations for Future Research.....	52
REFERENCES.....	55
APPENDICES.....	66
A. Beck Depression Inventory.....	66
B. Beck Anxiety Inventory.....	67
C. Suicidal Probability Scale.....	68
D. Demographic Information Form.....	69
E. Stressor Assessment Form.....	70
F. Contract.....	71
G. Program Evaluation Form.....	72
H. Information Test.....	73

LIST OF TABLES

TABLES

Table 2.1 Socio demographic characteristics of the sample.....	27
Table 3.1. Stressors assessed in the first phase.....	36
Table 3.2. Means, Standard Deviations and Ranges of the Intervention Group.....	37
Table 3.3. Means, Standard Deviations and Ranges of the Waiting-list...	37
Table 3.4. Summary Table of Two-Way Repeated Measures ANOVA for Depression.....	38
Table 3.5. Summary Table of Two-Way Repeated Measures ANOVA for Anxiety.....	39
Table 3.6. Summary Table of Two-Way Repeated Measures ANOVA for Suicidal Probability.....	40
Table 3.7. Negative Correlations of the Items of the Test.....	41
Table 3.8. Correlations among the Depression scores, Differences and Test.....	42
Table 3.9. Evaluation Means, Standard Deviations and Ranges of Sessions and Program.....	42

CHAPTER 1

INTRODUCTION

Stress is a very familiar word in our lives especially nowadays. On television, in books, in daily speeches, everywhere people talk about stress. We have more stress when important events take place which may have great impact on our lives. We all experience stress inevitably because life is changing and we try to adapt these changes whether they are small or not. However, we all have different lives. There are different events that may cause stress for us. Interestingly, these events may cause different levels of stress since there have been other factors affecting and gender is one these factors.

Men and women have different roles in society and these roles bring different opportunities and responsibilities. As women start to get employed more, there seems to be a change in their roles; the role of being an employee is added. Some dramatic changes in roles and responsibilities also occur when a child is born, too. Raising a child is a very difficult task for both mothers and fathers. They have to adapt their lives according to the child's needs. What about raising a child with a disorder? There are more handicaps for the parents while raising a child with a disorder. As the mothers are the primary caregivers of the children in our society, they live more difficulties than fathers.

Autism is one of the disorders that makes the lives of the mothers more difficult. Although there are different versions of autism, a child with autism needs 24 hour care. Mothers of a child with autism have many difficulties in raising and daily care of the child. Other responsibilities related to the needs of other members in the family and of their own may cause greater stress in mothers of children with autism. They can get depressed,

feel anxiety or have suicidal thoughts more than the mothers of children with no disabilities (Lainhart, 1998). Generally, the child's needs are the focus of the treatment in health; however both for the child's and the family's well-being, the stress, depression, anxiety and suicidal probability should be assessed in mothers of children with autism and they should be trained for the stress they would live after all that.

1.1 Stress, Depression, Anxiety and Suicidal Probability

1.1.1 Stress

Stress is a commonly used word in daily life and many researches have been conducted on this topic. Kasl (1983; cited in Wagenaar & La Forge, 1994) stated that one of the major factors in health and well-being is stress. Yet it is not clear what is meant by the word "stress". While stress can be defined in terms of a stimulus (Oltmanns & Emery, 2001), Selye (1956; cited in Everly, 1990) defined it as a response. Kasl (1978; cited in Cooper & Dewe, 2004) stated that stress can be defined as an interaction between a stimulus and a response. Furthermore, stress can be used as a noun, a verb or an adjective (Wagenaar & La Forge, 1994). The definition of stress and psychological responses related to stress varies from person to person (Fong, 1991); however it is an inevitable part of our lives. There is a balance in life and it may collapse because of different factors (Bekker, 2001) which can be important life events or daily tasks. This collapse may lead to stress, which, in turn leads to a need for gaining rebalance. The organism needs to adopt and find the balance; however this may take such a long time that stress may persist or occur frequently.

The level of stress a person experiences may change and Lazarus (1974, cited in Cooper & Dewe, 2004; Bartlett, 1998) stated that how stressed a person is depends on the perception of threat caused by the stressor and the extent to which the person copes effectively. Stress is not about the event but the interpretation and the adaptation of the person. If

there is a dog barking, the person may think “It is tied; it will calm down when I speak and introduce myself”. Therefore, she/he may not get overstressed. The coping strategy is talking to the dog and calming it down so that the threat will disappear. However, another person may think that the dog is not tied and even if he runs, the dog will catch and bite him. The coping strategy – running – is not effective and there is a threat which can not be overcome. The latter person gets more stressed than the former. The same situation causes different levels of stress because of different interpretations and available coping strategies.

As mentioned before, stress is inevitable for us. A certain level of stress is necessary for the individuals to survive (Bekker, 2001) and this level changes from person to person and from time to time for the same person. However, when the stress is under or over this level, there are negative effects of stress. These effects may be physiological (i.e. headaches, gastrointestinal problems), cognitive (i.e. concentration problems, increase in mathematical errors), emotional (i.e. aggressiveness, discomfort, anxiety) and behavioural (i.e. change in habitual behaviours, increase in smoking and alcohol consumption). Exposure to stress and different coping styles are reported in the onset of diseases such as ulcers and cancers (Auerbach, 1989). There found to be a stronger relationship between stress and symptoms for elderly people of both gender (Sandanger, Nygard, Sorensen & Moum, 2004). Roskies (1983; cited in Wagenaar & La Forge) also stated that stress could be interpreted as a universal explanation for a variety of psychological and physical problems. Then, it can be concluded that stress has great effects on our psychological and physical well-being.

As a result of these effects, there have been many studies conducted on stress, coping with stress and stress management techniques. These studies have been conducted in both laboratory settings and in its naturally occurring settings (Jones & Bright, 2001). In natural settings it is difficult to

have a significant control over variables and many factors can confound the findings of the studies. However, in laboratory settings controlling the variables is not a main problem. On the other hand, in laboratory settings, the stressors and measures of performance can be very different from those in real life situations. Generally, self-report measures are used to assess stress and stressors in these studies and these also can be biased leading to different results.

The sources of stress may also vary from person to person. These sources may be environmental, social, personal or physical situations. They can be daily hassles which can be everyday worries of money or health and these are effective in short term. They can be life crisis such as injury, retirement or loss of a loved one which have both instant and long term effects. Both positive and negative life changes may become stressors leading to a probability of negative change in health (Bartlett,1998). The stress experienced by the individuals relate to the number and native of stressors. There are different approaches concerned with the assessment of stressors.

Holmes and Rahe (1967; cited in Jones & Bright, 2001) presented an approach for conceptualizing stressors. According to this approach stressful change which requires adaptation is the focus. "Life event" is a construct in their approach and they defined it as a discrete external change, not a persistent internal state, in the subject's social and personal environment. They developed Social Readjustment Rating Scale which has helped many researchers for measuring life events. However, this approach was criticized for not discriminating positive and negative events, ignoring chronic or recurrent conditions, individual differences, reliability and validity of reports.

Lazarus and colleagues (1976; cited in Jones & Bright, 2001) also criticized life events because it is able to predict illness limitedly. They

developed the “daily hassles and uplifts” approach. They stated that minor stresses and pleasures of everyday life were important for health. Hassles were the irritating, frustrating demands that take place in everyday life whereas uplifts were oppositely minor positive everyday experiences. Although a hassle is not a major life event, they concluded that a major life event may affect the likelihood of everyday hassles. This approach is also criticised for using self-report measures.

There have been some stressors which are neither life events nor daily hassles. Stressors which are always present but not seem to be a particular hassle from day to day can be failed to capture. Life styles that may be perceived as stressful such as caring for a child with autism can be causing chronic stress for the individual. Not being able to go out can be a stressor which is not seen as a daily hassle. The differences between life events, hassles, and chronic stressors may not be so clear and there have been many ways to measure the stressors. Sometimes scales (such as Assessment of Daily Hassles, Social Readjustment Rating Scale) can be used or the individuals may be asked to report the stressors and their frequency and severity.

1.1.2 Depression

As stress is an important factor in many physical and psychological problems, many studies have been conducted to investigate the relationship of stress and these problems. There have been more studies concerning stress and depression than any other psychiatric disorders (Jones & Bright, 2001). Gruen (1993; cited in Jones & Bright, 2001), reviewing these studies, stated that there is a significant but moderate relationship between stress and depression. Depressive symptoms can also occur because of stressful life events (Eremsoy, Çelimli & Gençöz, 2005). However, Brown and Harris (1978) stated that the onset of depression is seldom explained by stressful experiences. There has not been a consensus about the effects of stress on

depression. On the other hand, the effect of depression on stress is a matter of question as well. It was concluded that depression generates the perception that stress became worse, not the stress itself.

Gender was another factor found to be related to depression: women were more vulnerable to depression than men. Being female was associated with symptoms of depression. It was also stated that the symptoms seem to occur more in women than men (Jones & Bright, 2001).

There have been many studies conducted about depression for women. In the study of Stewart and Salt (1981) the association between life stress, depression, and illness was investigated for normal adult women. It was concluded that work stress (i.e. promotion, firing) has a strong association with illness, whereas family stresses such as divorce, death, birth are associated with depression among housewives. This means being employed is related to illness whereas for unemployed women family stresses and depression are associated.

Bromberger and Matthews (1996) also stated that midlife stress is one of the important predictors of depressive symptoms during midlife so the age may be another important factor for depression of women. Then, whether they are employed or not, the age and the other demographic characteristics of women should be taken into account when depression was the topic under investigation.

1.1.3 Anxiety

Stress is also related to anxiety. Some studies found gender differences in anxiety symptoms whereas some studies did not replicate the same results. Male graduate students were likely to display more anxiety symptoms while preparing thesis (Eremsoy et. al., 2005).

An explanation for the gender difference in anxiety was offered by Uvnas-Moberg (1997; cited in Bekker, 2001) was more release of oxytocin in reaction to stress in females than males. Oxytocin has the effect of calming down, reducing anxiety and diminishing sympathetic activity, therefore males are expected to show more anxiety symptoms than females.

Co-occurrence of depression and anxiety is common for mood, symptoms and disorder (Hankin, Abramson, Miller & Haefffel, 2004). Isyanov and Calamari (2004) found that trait anxiety, perceived stress and depression were highly correlated. Although negative events are not specifically connected to depression and anxiety, they are found to be associated with anxiety and depression.

1.1.4 Suicidal Probability

Suicide is one of the leading causes of death in both men and women (Kaslow, Thompson, Tworney & Brooks, 2000). It was reported that most of the suicide committers or attempters have psychological problems such as depression, schizophrenia, and alcohol abuse (Eskin, 2003). Many studies have been conducted to find the relationship between depression, anxiety and suicide. In a study with major depression patients, women reported more suicidal ideation than men (Schaffer, Levitt, Bagby, Kennedy, Levitan & Joffe, 2000). Furthermore with a current major depression, females having a life-time anxiety disorder are reported to be at increased risk of suicidality. Clayton (1985; cited in Horesh & Apter, 2006) reported that suicide and suicide attempts are most often associated with depression in both men and women. However, suicidal attempts occur twice as often in women as men, whereas men die in their attempts more than women (Beautrias, 2006). This may be related to the higher levels of anxiety and depression suffering of women than men (Sandanger, Nygard, Sorensen & Moum, 2004). However, in a study conducted with women, Waern, Spak and Sundh (2002) found that

depression and alcohol dependence/ abuse were associated with suicidal thoughts whereas no association was found with anxiety.

In another study conducted with HIV-infected women, it was found that women reporting suicidal thoughts were higher in depressive mood than those who did not report (Demi, Bakeman, Sowell, Moneyham & Seals, 1998). In the study of Horesh and Apter (2006), female adolescents were found to be more suicidal than male adolescents. It was also reported that suicidal adolescents scored higher in the measures of depression and anxiety.

Social support is another important factor affecting the suicidal probability. As mentioned before, stress may cause significant problems for many individuals (Zetterqvist, Maanmies, Ström & Andersson, 2003). However in stressful circumstances a cohesive family may help the individual to maintain psychological health (Demi, Bakeman, Sowell, Moneyham & Seals, 1998). Furthermore, Schutt, Meschede and Rierdan (1994; cited in Demi, Bakeman, Sowell, Moneyhan & Seals, 1998) reported that perceived social support has a lessening effect on emotional distress and suicidal thoughts.

In the study of immigrants of Mexican descent, Hovey (2000) reported that depression was significantly correlated with high family dysfunction, low social support and acculturative stress. Furthermore, high suicidal ideation was related with low social support, high acculturative stress and high depression level. This was supported by another study with Israeli young adults during their compulsory military service (Lieberman, Solomon & Ginzburg, 2005). Suicidal ideation was higher when self-esteem, perceived health and perceived social support were low and distress level was high.

Some risk factors are determined in studies. One risk factor for suicide is social isolation (Demi, Bakeman, Sowell, Moneyham & Seals, 1998). Brent et. al. (1993; cited in Horesh & Apter, 2006) reported that having a psychiatric disorder is the major risk factor. Self-disclosure to family is also important in suicidal risk (Horesh & Apter, 2006). Low self-disclosure is related to depression and anxiety which are in turn responsible for suicidality. It was also stated that another risk factor in suicidal attempt or ideation is exposure to stress. However, De Mann & Leduc (1995; cited in Lieberman, Solomon & Ginzburg, 2005) reported that not the exposure itself but the adjustment to stress predicts the suicidal ideation. Besides the adjustment to stress, depression, anxiety and stress reactions are the factors that can predict suicidal ideation in adolescents. Eskin (2003) stated that depression itself is not the leading factor to suicide but the feeling of hopelessness that it contributes is the risk factor for suicide. Then, related to depression, hopelessness may be an important factor in assessing the suicidal probability besides social isolation, self-disclosure to family, exposure to stress, adjustment to stress, depression, anxiety and stress reactions.

In a study with African-American women suicide attempters and non-attempters, levels of stressful life events, childhood trauma, psychological distress, depression, hopelessness, alcohol and drug use were found to be risk factors for suicide (Kaslow, Okun, Young, Wyckoff, Thompson, Price, Bender, Twomey, Goldin & Parker, 2002).

There also have been some protective factors identified for suicidal probability (Kaslow, Thompson, Tworney & Brooks, 2000). These were hopefulness, self-efficacy, coping skills, family and friend support, obtaining material resources and spiritual well-being in which attempters had lower scores than non-attempters. In this study, family dysfunction was also reported as a risk factor for suicide among adults.

Cognitive distortions, maladaptive attitudes and perfectionism are also important factors in depression and anxiety as they increase the risk for suicide (Eskin, 2003). They can be evaluated as indirect risk factors for suicidal probability. Negative life events which are associated with depression can also trigger suicide since they cause individual's subjective world to be distorted.

1.2 Women, Depression, Anxiety and Suicidal Probability

Women are at higher risk for depression, anxiety and suicide with the contribution of stress that social roles pose. Masculinity and femininity define the specific meanings of the roles in the society and their opportunities and restrictions (Zammaripa, Wampold & Gregory, 2003). Women have to take the responsibilities of different roles in the community such as wife, mother and caregiver. As more and more women are getting employed, another role has been added, employee. Experiences within these roles can be both stressful and rewarding (Stephens & Townsend, 1997). Cook (1990; cited in Zammaripa, Wampold & Gregory, 2003) stated that obedience to rigid roles may cause psychological distress. Examining how the combination of the quality of experiences in these roles with the parent care role affects the psychological well-being of women, it was found that all three roles, the roles of mother, wife and employee, increased the stress in parent care. It can be concluded that the social roles a person has may affect each other and the person's well being.

Due to the different roles in society and biological aspects of women and men, there are different stressors for each gender. Everly (1990) assessed the stressors unique to women and grouped them into two categories: Psychosocial and physical. The primary psychosocial stressors are role strain, marital stressors (i.e. stressful events affecting the husbands' lives, housework, childcare), sex-role stereotyping (i.e. rigid prescriptions for appropriate behavior for the sexes) and economic stressors (i.e. low pay for

equal work). Physical stressors are generally related to reproductive functioning. Some of the physical stressors are pregnancy, childbirth, menstruation and menopause.

The difference between genders is not only related to the stressors. According to an evolutionary explanation of Taylor and his colleagues (Taylor, Klein, Lewis, Gruenewald, Gurung & Updegraff, 2000; cited in Bekker, 2001) there is a difference in the behavioral responses to stress for women and men as well. Fight or flight are effective responses for men whereas women attend to use tending (quieting and caring for offspring and blending to the environment) and befriending (creation of networks and social bonds that can be sources of protection) because of investments in pregnancy and motherhood. They try to protect themselves and their offspring. Then, it can be stated that stressors and stress responses may be characterized as unique to gender.

There has been a difference in suicide between men and women either. Suicidal attempts are twice as often in women as men (Beautrias, 2006). A series of factors due to the roles of women such as pregnancy, motherhood or caregiver may contribute to their vulnerability to suicidal behaviors. Marriage is also less protective for women than men against suicide. The nature of the stressor and the social context of the stressor such as the presence of child, other sex and gender-specific characteristics are also important in stress of women (Bekker, 2001). These characteristics and factors need to be concerned for assessing the stress and its effects on women.

1.3 Stress Management Programs

As stress has cost to individuals, communities, organizations, economies and it has great impact on individuals' health and well-being, stress management programs have been developed (Cooper & Dewe, 2004).

In stress management programs, individuals are equipped with a series of techniques that will help to prevent or minimize stress (Jones & Bright, 2001). There have been many studies conducted focusing on the techniques and the programs that can be used to manage stress especially in the past two decades (Majella de Jong & Emmelkamp, 2000).

The attendees of stress management programs need information about stress (Shea, 1980). This information may consist of definitions of stress, harmfulness and helpfulness of stress, health implications of ineffective dealing with stress, the physiological mechanism of stress, ways of coping with stress and ways to protect ourselves from harmful effects of stress. Some programs are even only composed of this information; however stress management techniques are also needed to be taken into account for effective results. Stress management techniques may differ depending on the stressor (Gramling & Auerbach, 1998). While some stressors can be controlled or changed, some stressors are out of control. If the situation can be altered, problem-focused coping techniques (i.e. time management, social skills training) can be used. These techniques help to cope with the stress by changing the stressors. If the situation is out of control, emotion focused coping (i.e. deep breathing) can be effective in which emotional responses rather than the stressor is controlled

Techniques derived from the cognitive-behavioral tradition are used most frequently (Bartlett, 1998). Cognitive restructuring is a stress management technique which aims to help individuals recognize stress, gain insight into negative self-statements contributing the stress and modify irrational beliefs, attitudes and thoughts. Negative or irrational thoughts are replaced with more positive and constructive ones (Jones & Bright, 2001). Relaxation techniques are also used mainly focusing on physiological effect of stress. By using this technique a semi-sleeping state occurs. Deep breathing, positive imagery, reducing external stimuli (i.e. darkening the

room) or introducing stimuli such as gentle music, pleasant aromas can be used to achieve this situation.

Assertiveness training is used to improve the person's interactions with others. The aim is to help people manage the others' demands better and boost control by improving person's chances of having their say. Time management is another technique that can be used in stress management training (Gramling & Auerbach, 1998). How to plan and use time effectively are the aims of the time management.

The effectiveness of these techniques is a focus of research. In a review of various studies with different stress management techniques, it was reported that all of the revised methods such as muscle relaxation, cognitively or behaviorally focused techniques produced generalized relaxation response and also had other effects (Lehrer, Carr, Sargunraj & Woolfalk, 1984; cited in Majella de Jong & Emmelkamp, 2000). Murphy (1996; cited in Majella de Jong & Emmelkamp, 2000) also found that studies using combination of techniques were higher in effectiveness than single technique studies, so many techniques can be combined for an effective stress management program. Jones and Johnston (2000; cited in Zetterqvist, Maanmies, Ström & Andersson, 2003) stated that psychoeducation about stress, analysis of individual reactions and management techniques such as relaxation, assertiveness training, time management and cognitive restructuring should be included in stress management programs.

Furthermore, the critical stress situations should be identified and coping demands of these situations should be assessed before implementing stress management programs to deal effectively with the stressors (Auerbach, 1989). Hillenberg & Dilorenzo (1987) also stated that the psychological issues, problem management style and the degree of distress

present should be concerned before tailoring the stress management programs. They also offered a four step formulation to prepare a program. After defining the stress response or the problem, assessment is the next step. Then, based on the assessment a treatment strategy is specified and evaluation of the treatment process continues. There are variables which may enhance or limit the goals and power of interventions such as motivation, compliance, environmental and social support, coping resources, clients' expectations, whether the intervention is offered in a clinical or community setting.

Today many stress management trainings are being applied by professionals from different origins. In the study of Majella de Jong and Emmelkamp (2000) two stress management training groups which were led by a psychologist or a paraprofessional showed improvement with no significant difference. However, they both improved significantly more than control group in trait anxiety, psychological distress and unassertiveness at the end of the training. After six months the same improvements were recorded with the addition of improvements in coping and psychosomatic complaints. This showed that no differences could be found between trainers in effectiveness of the program.

Zetterqvist et. al.(2003) prepared an internet-based self help stress management program which was composed of problem solving, time management and cognitive and behavioral restructuring in their study. Perceived stress, anxiety and depression decreased significantly both for the waiting list group and stress-management group, however stress-management group improved significantly more than the waiting-list group. Gangster, Sime & Tharp (1982; cited in Jones & Bright, 2001) conducted a study with employees who had a stress management training for 8 weeks. Small reductions in their depression and anxiety level were reported, however these changes were maintained 4 months after the training.

Another study was conducted with early breast cancer patients in which it was reported that depression declined at the end of the intervention with no difference in the follow-up (Antoni, Lehman, Kilbourn, Boyers, Culver, Alferi, Yount, McGregor, Arena, Harris, Price & Carver, 2001). No difference was found in distress and between the intervention and waiting-list group.

In conclusion, stress management programs have been used in training of coping with stress. Different techniques can be used for coping with different types of stressors. The effects of the techniques have been studied and they all were found to be effective. However, it was suggested to use multiple techniques rather than using single technique in stress management training.

1.4 Autism and Stress

1.4.1 Disabled Children and Parental Stress

Raising a child is stressful for all parents; however parents of children with disabilities may have additional sources of stress (Baker-Ericzen, Brookman-Freeze & Stahmer, 2005). In Western industrialized societies, one in every fifteen family has a handicapped child (Frude, 1990) and the family members have to provide the necessary care for these children. Sometimes a moderate level of adaptation in normal family life is enough; however a radical adjustment and a long-term responsibility for both parents and siblings need to be achieved. This causes greater stress with the contribution of the burden caused by these responsibilities.

Another issue is how the couple learns the situation and how they react to the situation (Frude, 1990). There may be differences in these experiences and these experiences may cause great stress for the parents. Straightforward and detailed information makes it easier for the parents to accept the condition. However, they may concern the practical demands or focus on longer-term future for the child and the family. They may deny the

problem and engage in unrealistic expectancies. The severity of the condition and the nature of the condition are important factors associated with the trauma experienced by parents. There may be some differences in the impact of learning the child's disability in parents. Farber (1960; cited in Frude, 1990) stated that fathers tended to get more affected if the child was a boy whereas mothers experienced more trauma if the child was a girl. He also outlined the stages in the family's response. First, families try to hold on to their previous structure, roles and functions to handle with the new situation. Later, to find more practical ways they start to learn about the dysfunction of the child, revise the relationships between the family members, rearrange the roles and family functioning is maintained through adaptation. However, if the child is too destructive, the family may reject the member with disability.

There have been some recent studies investigating the effects of serious illness on caregivers. These studies generally indicate that the caregivers of the people with serious illness are imposed to burden by the patient's condition (Emanuel, Fairclough, Slutsman & Emanuel, 2000). As a result they have more depressive symptoms (Magne-Ingvar & Öjehagen, 2005); which may lead to increase in feelings of hopelessness and suicidal probability. However they are less likely to get depressed if they can get professional support for their problems.

As mothers are more involved with the care giving of children even if they are in paid employment (Bristol, Gallagher & Shcopler, 1988), the differences between paternal and maternal stress has been the focus in many studies. McLinden (1990, cited in Byod, 2002) stated that most of the caregiver demands were placed on mothers and mothers showed higher stress than fathers of disabled children. Fathers have a minor role in caregiving for the child with disability (Frude, 1990). They detach from the family and mothers perceive less spousal support. Furthermore, because of poor spousal support the mothers become more depressed. Quine and Pahl

(1985; cited in Frude, 1990) also found that over half of the mothers of children with disability were depressed. However, some studies reported that both parents of exceptional children experienced similar levels of stress (Hastings, 2003; Noh, Dumas, Wolf & Fisman, 1989).

1.4.2 Autism and Parental Stress

Autism is a severe developmental disorder that poses a source of stress for parents (Yirmiya & Shaked, 2005). It can be diagnosed as early as 18 months. Although there used to be some explanations that mothers were responsible for the autism, today the reasons are not known clearly (Trigonaki, 2002). It is characterized by impairment in human creativity, socialization and communication. The children with autism display both ritual and challenging behaviors. They can not speak for themselves and are dependent on their caregivers. It is difficult for them to make friends and sustain a relationship. They can not sense danger, so caregivers always have to take care of them and their needs. Depression, anxiety, attention problems, hyperactivity and sleep problems may occur in children with autism. Children with autism look normal; however, when they have outbursts in public, bystanders can not understand the situation (Lainhart, 1999).

There are many characteristics to diagnose an individual with autism, but all of them do not exist in the individual and they may change over time for the same individual (Kulaksızoğlu, 2003). The severity of the condition changes from person to person, so the effects on the family changes as well. The family has to care for the child with autism and even in training programs, their existence helps to maintain the improvements.

Parenting a child with autism is also extremely demanding and stressful for parents (Sharpley, Bitsika & Efremidis, 1997). It may affect the parents' well-being, which may lead to vulnerability to psychiatric disorders (Yirmiya & Shaked, 2005). However the level of psychiatric difficulties

reported by the parents of autistic children may show difference whether a professional diagnosed or not. Parents report more psychiatric difficulties when self-reports were used. This may be the result of the difference between their stress experiences and the clinical evaluations of functioning.

The dependency of children with autism on their parents remains throughout the adolescence and adulthood (Fong, 1991). This situation causes great stress on parents and other caregivers of individuals with autism. High levels of stress causes to destructions of parental discipline (Hetherington & Blechman, 1996) which may contribute to parental stress. Having a child with autism also has harmful effects on the marital relationship (Piven, Chase, Landa & Wzorek, 1991) which also cause stress in family life.

As the children's symptoms and severity of their situations changes depending on the individual characteristics and the symptoms, levels of stress and related problems change as well. The differences of stress between the parents of children with different disorders have been the focus of many studies. In a study of parents of children with and without disorders, both mothers and fathers of children with autism were found to be more stressed than the parents of children with Down syndrome or with no disability (Noh, Wolf, Fisman & Speechley, 1989; cited in Byod, 2002). When the level of parenting stress, child behavior problems and depression in parents of children with autism, Down syndrome, behavioral disorders and normal development were studied (Dumas, Wolf, Fisman & Culligan, 1991), parents of children with autism and behavioral disorders reported to have highest level of stress and depression. Gray and Holden (1992) also found that mothers of autistic children reported more parent and family problems and perceived negative child characteristics than the mothers of children with Down syndrome or no disability. They were also more pessimist about views of their children being self-sufficient. When their social lives were investigated it was found that mothers of children with autism and Down syndrome

participated less in recreational and sporting activities as a family and involved less in social, political, intellectual and cultural activities than mothers of children with no disabilities.

When the mothers and fathers of children with autism were focus of the study, mothers of children with autism were found to have more stress than fathers (Moes, Koegel, Screibman & Loos, 1992). As the mothers are often the primary caregivers, the care-taking responsibilities were thought to increase the stress of mothers (Baker-Ericzen et. al., 2005). It was stated that even the members in the family of autistic children effect one another (Hastings, Kovshoff, Ward, Espinosa, Brown & Remington, 2005). In the study of Gray (2003), rather than the effect of the disability itself, the maternal stress affected the lives of fathers. However, Hastings (2003) reported that fathers of children with autism were not affected by the behavioral problems of the child nor the mother's mental health whereas there was an association of maternal stress with the child's behavior problems and father's mental health. A recent study also indicated that children's problem behavior and partner's depression were predictors of maternal stress whereas not the behavioral problems of the children but the partner's depression was predicting the paternal stress (Hastings, Kovshoff, Ward, Espinosa, Brown & Remington, 2005). There are also some studies showing that there are no differences between mothers and fathers of autistic children (Bebko, Konstantareas, & Springer, 1987; Factor, Perry & Freeman, 1990; Wolf, Noh, Fisman & Speechley, 1989).

When the maternal stress of children with autism was studied, both child-related and parent-related stress levels of mothers of children with autism were found to be higher than the mothers of children without any disabilities (Rodrigue, Morgan & Geffken, 1990; Baker-Ericzen et.al., 2005). Other studies reported that mothers of autistic children suffered more stress than mothers of children with Down syndrome or other psychiatric disorders

(Holroyd & McArthur, 1976; Byod, 2002). There are also differences among mothers of children with autism. Fong (1991) found that highly stressed mothers were older and had fewer children than low stressed mothers.

The sources of parental stress have also been searched. Studies reported that the behavioral problems of children with disabilities are associated with parental stress (Bebko et. al., 1987; Konstantareas et. al., 1989; Koegel et. al., 1992). In connection with it, improvements in children's progress were associated with low parent stress (Plienis, Robbins & Dunlap, 1988). Many studies have been conducted on the stress sources of parents of children with autism. Having a child with autism poses a severe challenge for the other members of the family (L'Abate, 1994). The permanency of the condition, the lack of acceptance of typical behaviors of children with autism by society or other members in the family and low level of social support are found to be the most stressful factors in parenting a child with autism (Gray & Holden, 1992; Konstantareas & Homatidis, 1989). According to some of these studies, age of child was important in stress (Holroyd, Brown, Wikler and Simmons, 1975; cited in Sharpley, Bitsika & Efremidis, 1997). Parents of children having older children with autism showed higher stress levels than parents of younger children. Furthermore, feeling of helplessness was more when the children were younger (Cullen & Barlow, 2002). This may also be related to the age of the parents collateral with the findings of Fong (1991) that older mothers were highly stressed. However, Hastings et. al. (2005) stated that family adaptation of the children with autism might change over time, so the patterns should be questioned for the earlier time of their lives.

The difficulties of autism are serious sources of stress for mothers. In the study of Sharpley, Bitsika and Efremidis (1997), 219 parents were questioned in terms of the current child-management difficulties that they experienced. Behavioral difficulties, toilet training, communication and learning difficulties were found to be a major source of stress. However, age

of child and age of the diagnosis were not found to be effective. Salisbury (1990; cited in Koegel, Schreibman, Loos & Dirlich-Wilhelm, 1992) also reported that there was a significant relation between the child's level of functioning and the mother's reported level of stress.

Cullen and Barlow (2002) also reported that the lives of parents and family are dominated by autism. Challenging behavior patterns of children with autism such as their lack of communication and social interaction, the absence of understanding others' demands, their 24 hour-demands, tantrums affect the parents' life negatively. The basic tasks such as shopping and leisure activities were impossible for the parents. Furthermore, siblings are affected because the child with autism dominates. Partners can have no time together, for themselves, their other children and friends (Lainhart, 1999). Also the lack of understanding of the others and lack of perceived social support lead to the feelings of social isolation, frustration and being blamed for the families of children with autism.

Children with autism exhibit typical behaviors in general public and these are poorly understood compared to the children with other disabilities (Noh et.al., 1989 ; Koegel et.al., 1992). As the bystanders can not understand the situation, they may stare at and criticize parents. This becomes a source of stress for parents of children with autism.

Another source of stress is the extra time that parents had to devote to their children with autism (Holroyd, Brown, Wikler & Simmons, 1975; cited in Sharpley, Bitsika & Efremidis, 1997). This may cause the other children to feel neglected or problems between siblings may occur which may exasperate the parental stress. Besides, it was stated in many studies that siblings of autistic children are at increased risk of behavioral and emotional problems (Rodrigue, Geffken & Morgan, 1993; Hastings, 2003).

Spousal blaming may be another factor that causes stress in mothers of children. Fathers of children with autism may blame their wives for creating this condition in their children especially if the child is male (Trigonaki, 2002). In fact as the parents learn their child's diagnosis, they tend to rely on each other for the first years. Later they accept autism and start to look for other sources for support.

Another issue is providing support for their children when the parents are no longer able to (Lainhart, 1999). As the individuals with autism need care for all their lives, this is a serious problem for their parents. Fleischmann (2004) analyzed the narratives published by the parents of children with autism and stated that parents had difficulty in finding support. Furthermore, financial problems cause great stress. A child with autism needs care for 24 hours, mothers can not take a job outside the home (Frude, 1990) and they lack social support which would be maintained from workplace.

It was stated that parents of children with autism may develop psychiatric disorders with the contribution of the burden of raising a child with autism (Lainhart, 1999). Besides high levels of stress, they also reported high levels of depression and anxiety (DeMeyer, 1979; cited in Fong, 1991; Harris, 1984). Especially in the first year after the child is diagnosed as having autism, the parents have episodes of anxiety and depression. Hastings et. al. (2005) also found that anxiety and depression were both correlated with parental stress.

Freeman, Pery and Factor (1991; cited in Sharpley et.al., 1997) found that mothers suffered anxiety and depression more than fathers because of greater responsibilities of mothers in daily care and their lack of social support led by less full time employment of mothers and this finding was supported by other studies (Gray & Holden, 1992; Moes et.al., 1992; Cullen & Barlow, 2002). Olsson and Hwang (2001, cited in Baker-Ericzen et.al.,

2005) reported that mothers of children with autism showed higher depressive level than mothers of children with no disability. Collaterally, Sharpley et.al. (1997) found that parents of children with autism had higher levels of anxiety and depression than parents of children without any disability. It was also stated that parents of children with autism had higher depression than parents of children with mental retardation, Down syndrome and no disability (Yirmiya & Shaked, 2005). However the depression of parents of children with autism did not differ from parents of children with language disorder or psychiatric disorder. These results might be due to the fact that language disorders and psychiatric disorders carry genetic liability.

The parents of children with autism often blame themselves for the situation (Fleischmann, 2004) and may have suicidal ideation. Ron (2004) stated that elderly people lose motivation to continue living as a result of isolation, a subjective feeling of loneliness, anxiety and depression included in various losses which may be physiological, functional, social and financial. Parents of children with autism have similar losses, so they may either feel less motivated to continue living.

Different management programs and interventions were included in the studies. In a study conducted in Turkey, parents of children with autism were given information counseling for 8 weeks while there was a waiting-list (Kuloğlu-Aksaz, 1994). No differences were found in the level of stress between the two groups, mothers and fathers of children with autism and pretest and posttest measures. However, the participants stated that they found the intervention beneficial. This may be due to the support they had in the group sessions.

1.5 Significance and Purpose of the Study

As mentioned above, women are at higher risk of experiencing greater stress as a consequence of different roles they have to take the

responsibilities of in society. They have to be a mother, a wife, a caregiver and an employee at the same time. Raising a child has many difficulties for parents. If the child is handicapped, the stress increases for the mothers, the prime caregivers. Autism is a difficult disorder and studies show that mothers of children with autism experience higher levels of stress and have depression and anxiety more than the mothers of children with other disorders or no disabilities. They feel hopeless and they may blame themselves which may lead to suicidal acts or ideations. Consequently, stress, depression, anxiety and suicide probability should be taken into account for the psychological well-being of the mothers of children with autism.

In special education centers, the rehabilitation and education of children with autism is the focus of the arrangements; however, the other family members, especially the mothers who are the prime caregivers need to be informed and supported for both the well-being of the family and the child. This study aims to provide a suitable Stress Management Program for the mothers of the children with autism to be applied effectively. This program may help the mothers to be aware of the effects of stress in their lives and to be able to cope with stress.

The purpose of this study is to arrange a Stress Management Program according to the stressors of mothers of children with autism and to evaluate the effects of this program on the depression, anxiety and suicide probability of mothers of children with autism.

In this sense, this study examined the hypotheses below:

- 1.** Mothers of children with autism are expected to have lower levels of depression after attaining the Stress Management Program.

2. Mothers of children with autism are expected to have lower levels of anxiety after attaining the Stress Management Program.
3. Mothers of children with autism are expected to have lower suicidal probability after attaining the Stress Management Program.
4. Mothers of children with autism who have no treatment are expected not to have any changes in the levels of depression.
5. Mothers of children with autism who have no treatment are expected not to have any changes in the levels of anxiety.
6. Mothers of children with autism who have no treatment are expected not to have any changes in suicidal probability.
7. Depression of mothers of children with autism attaining to the Stress Management Program are expected to be lower than the mothers of children with autism in waiting-list group having no treatment
8. Anxiety of mothers of children with autism attaining to the Stress Management Program are expected to be lower than the mothers of children with autism in waiting-list group having no treatment
9. Suicidal probability of mothers of children with autism attaining to the Stress Management Program are expected to be lower than the mothers of children with autism in waiting-list group having no treatment

CHAPTER 2

METHOD

2.1 Participants

The study consisted of two phases. In the first phase 24 mothers of children with autism were used to assess the stressors. The mothers were selected from GATA Special Education Center, Uyum Special Education Center and İlgi Special Education Center. The age range of children with autism in the first phase was between 3 and 18 with a mean of 8,73 ($Sd=3,73$).

In the second phase, 71 mothers of children with autism in Uyum and İlgi Private Education Centers were interviewed. 44 subjects participated in the study. 25 of the mothers accepted to participate in the Stress Management Program. 21 of them were assigned to the intervention group and one participant dropped out in the beginning of the study. 23 of them were in waiting-list, 1 participant dropped out at the beginning of the study and 2 participants dropped out in the second administration of scales. All the participants were married. They ranged in age from 25 to 62 with a mean of 38,65 ($Sd=7.98$). The majority of them had at least high school degree (70 %). 60 % were housewives whereas the rest were employed or retired. The children ranged in age from 2 to 26 with a mean of 9.65 ($Sd= 5.14$). The age of diagnosis changed between 0 to 7 with a mean of 2.95 ($Sd= 1.45$).

The mean age of participants in the intervention group was 37.4 ($Sd= 5.76$, range= 30 – 50 years) and in the waiting-list was 39.9 ($Sd=9.72$, range= 25 - 62 years). Some socio demographic characteristics of the two groups are given in Table 2.1.

Table 2.1. Socio demographic characteristics of the sample

Group	Variable	Frequency	Range	Mean	SD
Intervention					
(n=20)					
	Age		30 - 50	37.4	5.76
	Education				
	Primary S.	3			
	Secondary S.	1			
	High School	7			
	University	9			
	Occupation				
	Retired	2			
	Employed	7			
	Unemployed	11			
	Child's age		4 - 13	8.75	2.84
	Diagnosis age		1 - 7	2.9	1.19
Waiting-list					
(n=20)					
	Age		25 - 62	39.9	9.72
	Education				
	No education	1			
	Primary S.	3			
	Secondary S.	4			
	High School	6			
	University	6			
	Occupation				

Table 2.1 continued.

Variable	Frequency	Range	Mean	SD
Retired	1			
Employed	6			
Unemployed	13			
Child's age		2 - 26	10.55	6.67
Diagnosis age		0 - 7	3	1.71

2.2 Instruments

Beck Depression Inventory (BDI), Beck Anxiety Inventory (BAI), Suicide Probability Scale (SPS) and Demographic Information Form were used in this study. The scales are described below.

2.2.1 Beck Depression Inventory (BDI)

Beck Depression Inventory (see Appendix A) was first developed by A. T. Beck in 1961 (Savaşır & Şahin, 1997). The inventory was reevaluated and revised in 1978 as a second form. In this inventory the aim is to assess the cognitive, emotional and motivational symptoms in depression (Öner, 1997). It is a self-report measure and it can be applied to a group. It contains 21 items which are rated from 0 to 3 in terms of intensity. The scores are summed giving a depression score which shows the level of depressive symptoms. The total score can range from 0 to 63. It is not related to diagnosis of depression but the symptoms which are mood, pessimism, sense of failure, lack of satisfaction, feeling of guilt, sense of punishment, self-dislike, self-accusations, suicidal wishes, crying attacks, irritability, social withdrawal, indecisiveness, distortion of body image, sleep disturbance, fatigability, loss of appetite, weight loss, somatic complaints and loss of libido.

Beck, Steer and Garbin(1988) conducted a meta-analysis containing the studies from 1961 to 1986 focusing on the psychometric properties of the BDI with psychiatric and non-psychiatric samples. The results showed that BDI has high internal consistency and concurrent validity.

BDI was adapted by Tegin (1980; cited in Savaşır & Şahin, 1997) and Şahin (1988; cited in Savaşır et.al., 1997) on Turkish samples. In the first study the test-retest reliability of BDI was .65 and internal consistency was .78 on normal sample and .61 on depressed sample. In the second study, internal consistency was .74. Both of the studies supported the usage of BDI.

2.2.2 Beck Anxiety Inventory (BAI)

Beck Anxiety Inventory (sess Appendix B) was developed by Beck, Epstein, Brown and Steer in 1988 (Savaşır & Şahin, 1997). The aim is to assess the density of anxiety symptoms. It is a self-report measure and it can be applied to a group. It contains 21 items which are rated from 0 to 3, 0 meaning “never and 3 meaning “seriously”. The scores are summed giving an anxiety score which shows the level of anxiety. The total score can range from 0 to 63.

The inventory is adapted in Turkish by Ulusoy, Şahin and Erkmen (1996; cited in Savaşır et.al., 1997). In the study conducted with psychiatric patients, internal consistency was .93. The test-retest reliability of BAI was .57. It was reported that BAI could differentiate the group with the diagnosis of anxiety from the other groups of diagnosis.

2.2.3 Suicidal Probability Scale (SPS)

Suicidal Probability Scale (see Appendix C) was developed by Cull and Gill (1990; cited in Eskin, 2003). The aim is to assess the probability of committing suicide. It is a self-report measure containing 36 items which are rated over 4 point scale, 1 meaning “None or a little of the time”, 4 meaning

“Most or all of the time”. The total score range from 36 to 144. It is not possible for someone to know how probably a person will commit suicide, so the scale does not inform that a person will commit suicide or not.

The inventory is adapted in Turkish by Eskin (1993; cited in Eskin, 2003). It was reported that internal consistency and test-retest validity were reported to be high. Tuğcu (1996) tested the reliability and validity of SPS in a Turkish sample and she reported that the reliability and validity coefficients of the scale were acceptable.

2.2.4 Demographic Information Form

Demographic information Form (see Appendix D) was developed by the researcher in order to receive information on the age of the mother, education, occupation, marital status, the age of the child with autism and the age of the diagnosis of autism. The form was constructed with multiple choice questions (e.g. “Marital status:() Married () Divorced () Widow () Single”) and fill in the blank questions (e.g. “ Age of child:_____)

2.3 Procedure

The present study consisted of two phases. The first phase included the assessment of stressors for the mothers of children with autism. The children were determined by the diagnosis of autism in their medical reports. The mothers of children with autism were asked to write the first five stressors in their lives beginning from the most stressing to the least stressing situation (see Appendix E).

After assessing the most stressing situations of mothers of children with autism, a 5 week Stress Management Program was prepared. The aim of the program was to teach the stress management techniques to the mothers of autistic children. 44 subjects accepted to participate in the study,

25 of them were voluntary for the Stress Management Program. 21 participants were assigned to the intervention group and the rest four subjects who wanted to participate in the program were told that they would have the training later. The intervention group and the waiting-list group were asked to complete the set of questionnaires containing the BDI, BAI, SPS and a short demographic form in a counter balanced order. For the first administration of the scales there was a general introduction of the study was attached to the demographic information form. In the second and third administrations demographic information form was not given and only the names of the participants were asked. The completion of the tests took about 15 minutes. The stress management program was applied to the intervention group as weekly individual sessions which took six weeks. Each session took about 40 minutes. Powerpoint show was used in sessions and written materials were given to the participants.

In the first session, the participants were asked to assign a contract (see Appendix F) acknowledging about the study and information about stress, causes and responses was given. In the second session, anger management was the topic discussed. In the third session, relaxation training was applied and assertiveness training was given. In the fourth session time management was the focus and in the fifth session cognitive restructuring was explained. A sixth session was added to apply the same set of questionnaires. At the end of the each session for the first five weeks, the participants were asked to evaluate the session for the usefulness on a 4 point scale, 1 meaning "not useful at all" and 4 meaning "very useful". At the end of the sixth session the participants were asked to evaluate the whole Stress Management Program on a 4 point scale with the positive and negative aspects (see Appendix G). At the end of the program the subjects were also equipped with the summary of the information given in the program.

At the end of the program as the intervention group was asked to complete the questionnaires, the waiting-list group was also administered. 2 participants dropped out in the second administration at the end of the program because of their unwillingness to continue their participation. One month later, the intervention group was asked to complete the questionnaires for the third time. The aim was to assess whether there are significant effects of the program. Most of the participants in the waiting-list group were not reached because of vacations, departures from the special education centers and not being available because of diseases of the participants or the children. The scores of the waiting-list group in the third administration were not taken into the evaluation because of statistical inadequacy.

2.4 Training Material

The Stress Management Program was developed by the researcher aimed at teaching the techniques that might be used to cope effectively with stress. While developing the Stress Management Program, Gramling and Auerebach's (1998) stress management workbook and Şahin's(1981) Stress Management book were used as guides. The training procedure involved lectures, active participation, homework and summary of the information.

The aim of the first session was to acknowledge the participants about stress. Previously, information about the study was given and a contract was assigned by the subjects. In this session, information about stress was given. The definition of stress, the reaction to a stressful event, the effects of stress (physiological, cognitive, emotional, behavioral), stressors (daily, developmental, life crisis) and general information about techniques used to cope with stress were discussed. At the end of the session the stressors assessed before the program were presented to the participants.

The aim of the second session was to inform participants about anger and teach the techniques used in anger management. Information about

anger, when anger is a problem, deep breathing exercise, positive coping statements, escape valves for anger and the relation between maladaptive beliefs and anger were discussed.

In the third session, difference between assertive, passive and aggressive behaviors, the techniques used to behave assertively were discussed. Later relaxation exercise was given using the exercise recorded by Turkish Psychological Association.

In the fourth session, the aim was to assess whether they had problem in time management and give information about using time more effectively. The reasons for poor time management, how to use time effectively and assessment of values and long-range goals were discussed.

In the fifth session, the effects of cognitions on stress, distinguishing between the maladaptive and adaptive cognitions and cognitive restructuring were discussed.

In the last session, the participants' questions about the techniques were replied and they were asked to evaluate the program by scoring on a 4 point scale and reporting the useful aspects and negative sides in the program. A test (see Appendix H) consisting of 10 questions about the information given in the program was applied to the subjects. The participants were also administered the scales in this session.

2.5 Data Analysis

For the evaluation of the research hypotheses, the analysis were performed by using Statistics Package for the Social Sciences (SPSS), version 10.0 for Windows; a computer program for multivariate statistics.

In order to determine the stressors of the mothers of children with autism, descriptive statistics were used (Tabachnick & Fidell, 2001). Then, two-way repeated measures analysis of variance was conducted to examine whether there were any changes in the depression, anxiety and suicidal probability levels of mothers of children with autism after the Stress Management Program. One-way repeated measures analyses of variance was conducted to examine whether there were any differences in depression, anxiety and suicidal probability levels in the follow-up for the mothers of children with autism who attained the program. The relationship between the information and the difference after the program was investigated by adding test scores as confounding variable.

CHAPTER 3

RESULTS

In this study, data from 24 mothers of children with autism for the first phase and 44 mothers of children with autism for the second phase were analyzed. In the first phase, the mothers were selected from the GATA Special Education Center, Uyum Special Education Center and Ilgi Special Education Center. The age range of children with autism in the first phase was between 3 and 18 with a mean of 8,73 ($Sd= 3,73$). They were asked to report the first five stressors in their lives beginning from the most stressing to the least stressing situation. In the second phase the mothers were selected from the Uyum Special Education Center and Ilgi Special Education Center. They ranged in age from 25 to 62 with a mean of 38,65 ($Sd=7.98$). In the second phase all the participants were administered the four scales; Beck Depression Inventory (BDI), Beck Anxiety Inventory (BAI), Suicidal Probability Scale (SPS) and Demographic Information Form.

3.1 Results Concerning the Assessment of Stressors of Mothers of Children with autism

In the first phase of the study, the stressors were assessed using descriptive statistics. The first reported stressor was given 5 points whereas the fifth reported stressor's score was 1 point. The total scores of the stressors are presented in Table 3.1.

Table 3.1. Stressors assessed in the first phase

	<u>Stressor</u>	<u>Score</u>
1	Disturbing behaviors of the child	92
2	Reactions of other people	36
3	Being unable to control the child	32
4	Worries about the child and its future	29
5	Problems in communication with the child	27
6	Problems with the partner	16
7	Time management problems	11
8	Problems with the other family members	11
9	Restrictions in living caused by the child's situation	7
10	Tiredness	5
11	Problems in social relationships with others	5
12	Sleeping problems	3
13	Problems in workplace	3
14	Indecision	3
15	Financial problems	3
16	Health problems	2
17	Transport	1
18	Surveys	1

3.2 Descriptive Characteristics of the Variables

In the second phase of the study, since the sample was small, cases were not deleted whether they were outlier or not. Only the cases which dropped out during the study were not included. Before conducting analysis for the data of the second phase of the study, descriptive characteristics of the variables for the sample were investigated. Descriptive statistics for the

sample ($N=40$) in three administration times are presented in the Table 3.2 and Table 3.3.

Table 3.2. Means, Standard Deviations and Ranges of the Intervention Group($N=20$)

Variable	Time 1			Time 2			Time 3		
	M	SD	Range	M	SD	Range	M	SD	Range
Depression	17.3	9.61	0-36	13.6	9.51	0-31	14.1	10.75	1-36
Anxiety	17.6	10.65	0-40	16.7	12.42	0-40	15.8	12.06	0-38
Suicidal Probability	70.15	8.93	52-86	71.2	8.31	56-84	71.5	10.01	56-90

Table 3.3. Means, Standard Deviations and Ranges of the Waiting-list ($N=20$)

Variable	Time 1			Time 2		
	M	SD	Range	M	SD	Range
Depression	12.8	4.96	4-33	11.35	6.14	3-31
Anxiety	15.3	9.79	3-38	13.75	8.08	3-29
Suicidal Probability	70.8	6.98	57-81	70.15	6.45	58-85

3.3 Results Concerning the Effects of the Stress Management Program

A series of two-way repeated measures analysis of variance (Tabachnick & Fidell, 2001) was conducted to evaluate the effects of the Stress Management Program on depression, anxiety and suicidal probability. In the first analysis the dependent variable was depression scores. The factors were groups with two levels (experimental group having Stress Management Program, waiting-list group with no treatment) and time with two levels (before the Stress Management Program, at the end of the Stress Management Program). The Group main effect, the Time main effect and Group x Time interaction effects were tested using the multivariate criterion of Wilks' lambda (Λ). The time main effect was significant, $\Lambda=.70$, $F(1,19)=8.34$, $p<.01$. The univariate test associated with the group effect was nonsignificant $\Lambda=.85$, $F(1,19)=3.27$, $p>.05$. These results indicated that there was a significant decrease in depression of mothers of children with autism who engaged the Stress Management Program, whereas no significant difference was found in depression of mothers of children with autism in waiting-list group. It was also indicated that no significant difference was found between the groups in depression before and at the end of the Stress Management Program (Table 3.4).

Table 3.4. Summary Table of Two-Way Repeated Measures ANOVA for Depression

Source	SS	df	MS	F
Between				
Time	132.61	1	132.61	8.34
Group	227.81	1	227.81	3.27
Interaction	25.31	1	25.31	1.16
Within	412.44	19	21.71	
Total	798.17	22		

A two-way repeated measures analysis of variance was conducted with the anxiety scores as dependent variable and group and time as the independent variables (Table 3.5). The Group main effect, $\Lambda=.95$, $F(1,19)=.96$, $p>.05$, and the Time main effect, $\Lambda=.95$, $F(1,19)=.91$, $p>.05$, were not significant, as well as the Group x Time interaction effect, $\Lambda=1$, $F(1,19)=.07$, $p>.05$. These results indicated that there was no significant change for the anxiety level of mothers before and at the end of the Stress Management Program. No significant difference was found between the anxiety levels of intervention and waiting-list group. It was shown that the groups did not differ in anxiety level before and at the end of the Stress Management Program.

Table 3.5. Summary Table of Two-Way Repeated Measures ANOVA for Anxiety

Source	SS	df	MS	F
Between				
Time	30.01	1	30.01	.91
Group	137.81	1	137.81	.96
Interaction	2.11	1	2.11	.07
Within	586.64	19	30.88	
Total	756.57	22		

A two-way repeated measures analysis of variance was conducted with the suicidal probability as dependent variable and group and time as the independent variables (Table 3.6). The Group main effect, $\Lambda=1$, $F(1,19)=.01$, $p>.05$, and the Time main effect, $\Lambda=.99$, $F(1,19)=.11$, $p>.05$, were not significant, as well as the Group x Time interaction effect, $\Lambda=.97$, $F(1,19)=.59$, $p>.05$. These results indicated that there was no significant change for the suicidal probability of mothers before and at the end of the Stress Management Program. No significant difference was found between the

suicidal probabilities of intervention and waiting-list group. It was shown that the groups did not differ in suicidal probability before and at the end of the Stress Management Program.

Table 3.6. Summary Table of Two-Way Repeated Measures ANOVA for Suicidal Probability

Source	SS	df	MS	F
Between				
Time	.8	1	.8	.11
Group	.8	1	.8	.01
Interaction	14.45	1	14.45	.59
Within	462.05	19	24.32	
Total	478.1	22		

In order to evaluate whether the change in depression was due to the Stress Management Program, a test containing 10 multiple questions were given to the participants in the treatment group. Two internal consistency estimates of reliability were computed for the test: coefficient alpha and a split-half coefficient expressed as a Spearman-Brown corrected correlation. For the split-half coefficient, the scale was split into two halves with a question from each session such that the two halves would be as equivalent as possible. The first half included items 1, 3, 5, 7 and 9, while the other half included 2, 4, 6, 8 and 10. Coefficient alpha was .64 while split-half coefficient was .67, indicating a moderate satisfactory reliability. However, there found to be negative correlations between items shown in Table 3.7, which were anomaly for the reliability analysis although they were not significant.

Table 3.7. Negative Correlations of the Items of the Test

Item	Item	r	Sig.
Item 1	Item 5	-.11	.64
Item 1	Item 8	-.19	.42
Item 3	Item 5	-.22	.36
Item 4	Item 5	-.14	.56
Item 5	Item 6	-.14	.56
Item 5	Item 8	-.19	.42
Item 5	Item 9	-.03	.89
Item 6	Item 8	-.24	.30
Item 7	Item 8	-.07	.78

Pearson correlation coefficients were conducted for the test results, depression scores in three measurement times and the differences in depression (Table 3.8). No significant correlations among the variables were found indicating that the depression scores, changes in depression and the information attained in the program did not have a significant relationship.

However, one-way repeated measures analysis of covariance was conducted in order to evaluate whether the significant change in depression after the Stress Management Program was due to the information given in the program. The depression scores were dependent variables and the time of measurement was independent variable having three levels (before the program, at the end of the program and at follow-up 1 month after the program) whereas the test scores were entered as the covariate. The results indicated that there was no significant relationship between the depression and the time of administration, $\Lambda=1$, $F(1,18)=.002$, $p>.05$. This finding showed that the change in depression of the mothers after attaining the Stress Management Program was due to the information given in the program.

Table 3.8. Correlations among the Depression scores, Differences and Test

	1	2	3	4	5	6	7
1	1.00						
2	-.17	1.00					
3	-.36	.70**	1.00				
4	-.1	.88**	.13	1.00			
5	.27	.38**	-.48*	-.70**	1.00		
6	-.36	-.36	-.45*	.42	.35	1.00	
7	-.11	.02	-.10	.27	-.36		1.00

** $p < .01$

* $p < .05$

Note: 1: Test score, 2: Depression score in the first administration time, 3: Depression score in the second administration time, 4: Depression score in the third administration time, 5: Difference between the first and second administration depression score, 6: Difference between the second and the third administration depression score, 7: Difference between the first and the third administration depression score.

The analyses of variance conducted for the evaluation of the sessions and the Stress Management Program (Table 3.9) indicated that the sessions did not differ in terms of evaluations of the participants, $F(5,94) = .168, p > .05$.

Table 3.9. Evaluation Means, Standard Deviations and Ranges of Sessions and Program

Session	Mean	SD	Range
1	3.62	.5	3-4
2	3.7	.57	2-4
3	3.7	.73	1-4
4	3.58	.67	2-4
5	3.75	.62	2-4
Program	3.6	.59	2-4

All together, these findings indicated that after the Stress Management Program, the mothers of children with autism had lower levels of depression whereas anxiety level and suicidal probability did not change as a function of Stress Management Program. The decrease in depression did not continue one month after the program, however, the change was conserved. The change in depression was found to be related with the information given in the Stress Management Program. For the mothers of children with autism in waiting-list, no significant change was found in depression, anxiety and suicidal probability.

CHAPTER 4

DISCUSSION

The purpose of the study was to prepare a Stress Management Program for the mothers of children with autism and evaluate the effects of the program on depression, anxiety and suicidal probability of the mothers. In the first phase of the study, the stressors which are related and not related to the child with autism were assessed. The results in the second phase revealed that there was a decrease in the depression scores of mothers of children with autism after the Stress Management Program which was prepared according to the assessed stressors whereas there were no significant changes in anxiety and suicidal probability.

4.1 Literature and the Results of the Study

Stress is an inevitable part of our lives (Fong, 1991) and the sources of stress may vary from person to person and from situation to situation. The stressors may be both positive and negative events causing a probability of negative change in health (Bartlett, 1998). Auerbach (1989) stated that to deal with stressors effectively, stressing situations and coping demands of these situations needed to be assessed before implementing stress management programs. Hillenberg and Dilorenzo(1987) suggested four steps to follow to prepare a program. First the stress response or the problems are defined and then assessment takes place. After assessment, a treatment strategy is specified and as the last step the strategy is evaluated. To assess the stressors, different approaches have been developed. Holmes and Rahe (1967; cited in Jones & Bright, 2001) developed Social Readjustment Rating Scale to measure life events which means the discrete external changes. However, Lazarus and colleagues (1976; cited in Jones & Bright, 2001) developed the “daily hassles and uplifts” approach stating that

minor stresses and pleasures of everyday life which were not “life events” were also important for health.

In both approaches self-report measures were used and they were criticized for this. Furthermore, some stressors may be nor a life event neither a daily hassle. As scales such as Social Readjustment Rating Scale can be used to assess stressors, the individuals may only be asked to report the stressors. In this study, the individuals were asked to report the first five stressors starting from the most important one to the least important one. They were scored according to their order.

Everly (1990) grouped stressors unique to women in two categories. Psychosocial stressors were role strain, marital stressors, sex-role stereotyping and economic stressors. The physical stressors were generally related to reproductive functioning some of which are pregnancy, childbirth, menstruation and menopause. In the literature, studies conducted to assess the stressors for the mothers of children with autism revealed that behavioral difficulties, toilet training, communication and learning difficulties (Sharpley et. al., 1997), child’s level of functioning (Salisbury, 1990; cited in Koegel et. al., 1992), child’s absence of understanding others’ demands, the child’s 24 hour-demands, tantrums (Cullen & Barlow, 2002), basic tasks such as shopping and leisure activities being impossible were some of the stress sources.

However, in this study the stressors were grouped in terms of their relation to the child with autism. The most important stressors were directly related to the situation of the child. These stressors were the disturbing behaviors of the child (e.g. screaming, crying, biting, clapping hands), reactions of other people to the behaviors of the child (e.g. blaming, warning), being unable to control the child (e.g. compulsive behaviors of the child, feeding the child), worries about the child and its future (e.g. educational

problems, problems in the adaptation of the child to the environment), problems in communication with the child, restrictions in life (e.g. problems in home visits, programming 24 hours due to the needs of the child).

There were other stressors that have no direct relation to the child's situation. These were problems with the partner (e.g. partners with little or no help, mistreatments of the partner to the child), time management problems (e.g. not having time for self, not having enough time), problems with the other family members (e.g. problems with the siblings of the child), tiredness, problems in social relationships with others (e.g. neglect of the others, insensitivity of the neighbors), sleeping problems, problems in workplace, indecision, financial problems, health problems, daily problems (e.g. transport) and surveys. These stressors are defined as not related to the child with autism; however, there are effects of the situation of the child on these stressors. Problems with the partner may increase as a result of the stress caused by the increased needs of the child with autism. Mothers need more help due to the special care essential for the child and this may cause a feeling of burden for both parents leading to more stress. Piven et. al. (1991) stated that having a child with autism had harmful effects on the marital relationship. Furthermore, as all the family members have to design their lives according to the needs of the child with autism, the siblings of the child may have difficulties. The parents may have to pay more attention to the needs of the child with autism and also they may expect the sibling to have more responsibilities. This may be a source of stressor besides the stressors of living with a child with autism causing more problems for the sibling. Rodrigue et. al. (1993) and Hastings (2003) stated that the siblings of children with autism might be at increased risk of behavioral and emotional problems. Another example can be the problems in workplace. If the mother of the child with autism is employed, arranging day due to the needs of the child may become harder. She may often have to take permission to have a day off and this may cause more problems in the work place.

The assessment of stressors of the mothers of children with autism revealed that these stressors are directly or indirectly related to the situation of the child and also the stressors are generally specific to the mothers of the children with autism; then using self-reports and asking for the stressors was an acceptable way to assess the stressors. However, it was recognized that life events were not reported as stressors in these assessments.

These assessed stressors were used to prepare a Stress Management Program for the mothers of children with autism. The aim of the program was to equip individuals with a series of techniques that will help to prevent or minimize stress. The studies revealed that there was a significant relationship between stress and depression (Gruen, 1993; Isyanov & Calamari, 2004). Anxiety was also highly correlated with depression and stress. Some of the studies conducted with women claimed that depression was associated with suicidal ideation whereas no association was found with anxiety (Waern, Spak & Sundh, 2002). However, there are studies revealing that suicidal female adolescents scored higher in depression and anxiety (Horesh & Apter, 2006). Lainhart (1999) stated that the burden of raising a child with autism contributed to the development of psychiatric disorders. It was also indicated that besides of high levels of stress, parents of children with autism reported high levels of depression and anxiety (DeMeyer, 1979; cited in Fong, 1991; Harris, 1984). In a study conducted in Turkey by Kuloglu-Aksaz (1994), a similar program was implemented and no difference was found between the intervention group and waiting-list group and the pre-test and post-test measures. In the direction of the result of the studies, depression, anxiety and suicidal probability of the mothers of children with autism were investigated in the present study.

The results of the present study revealed that there was a significant difference in depression after the implication of Stress Management Program for the mothers of children with autism. In the follow-up, the change was

maintained in depression. There was a slight decrease in anxiety for the intervention group; however this change was not significant. There was a decrease in depression and anxiety for the waiting-list group; however these changes were not significant as well. There were no significant differences between the intervention group and the waiting-list group in depression, anxiety and suicidal probability in any administration times. However, intervention group scored higher than the waiting-list group in depression and anxiety before the Stress Management Program, although no significant difference was found.

The findings of the present study are congruent with the literature. In the study of Zetterqvist et. al.(2003), an internet-based stress management program was implemented and stress, anxiety and depression decreased significantly for both the stress-management group and waiting list; however the changes in depression and anxiety were greater for the stress-management group than the waiting-list group. In another study, it was reported that small reductions occurred in depression and anxiety after an 8-week stress management program and these changes were maintained after 4 months (Gangster et. al., 1982; cited in Jones & Bright, 2001). Another study with early breast cancer patients (Antoni et. al., 2001) it was found that depression declined at the end of the intervention with no difference in the follow-up and no difference was found between the intervention group and the waiting-list group.

Consistent with these findings, in the present study there have been a significant difference in depression. However, the decline in anxiety was not significant which may be due to the stressors that cause anxiety in mothers of children with autism. The anxiety causing stressors may be related to the future of the child and the family such as the problem of caring for the child with autism when the parents are not available anymore. Techniques applied in the Stress Management Program may not be effective for future anxiety so

that a significant decrease was not maintained in anxiety. Furthermore, the mothers in the present study have been supported by the special education centers; so their anxiety level was not high at the beginning of the intervention. This might be another reason for the indifference in anxiety level after the intervention. In the present study Beck Anxiety Inventory which relies more on physiological symptoms was used to evaluate the anxiety level. However, another instrument evaluating the cognitive symptoms for anxiety such as State-Trait Anxiety Inventory (STAI) could be used and different results could be attained.

Studies conducted to evaluate whether there was a change in suicidal probability after a stress management program were not found. However, suicidal probability would be expected to decrease as studies revealed that there was a significant relationship between depression and suicidal probability. In the present study, there was no significant change in suicidal probability for both the intervention group and the waiting-list group. There might be a floor effect for the suicidal probability of the mothers of children with autism. Also, this may be because mothers of children with autism verbalized the ideation of committing suicide but not had the intention to commit. Furthermore, their dedication to the child with autism would be a protective factor although they have had the ideation of committing suicide. Another explanation would be about the burden of the mothers caused by the child with autism. As a result of the difficulties related to the situation of the child, the mothers were more burdened by their engagement in care giving. The content of the Stress Management Program did not contain information that could make changes in the situation of the child. This might have caused the same feelings of burden for the mothers whereas depression was affected by the information in the Stress Management Program.

In order to investigate whether the change in depression of mothers in treatment group was due to the information given in the Stress Management

Program, a test consisting of ten multiple questions was given. The results revealed that there was no correlation between the test scores and change in depression. This can be explained in three ways. First of all, the change may be an effect of the support provided or the attention paid by the trainer. In the study of Majella de Jong and Emmelkamp (2000) whether the trainer was professional or not the stress-management groups improved more than the control group. In relation with this, in the study of Kuloğlu-Aksaz (1994), no difference was found between the groups and the pretest-posttest measures. However, the interventions were found beneficial by the participants. This was connected to the support the participants had in group sessions. In this study, individual sessions were conducted; however, the trainer's attention might affect the results. The second explanation is that the test might not be measuring the information attained through the study. Lastly, the information may not be representing the effect of the Stress Management Program. How much the participants apply the techniques is the matter of question since the participants may know but not apply the techniques. However, when the information was taken as covariate, there was no difference in depression of intervention group after the Stress Management Program. This showed that the information had an effect on the decrease on depression and the attention paid by the trainer was not significantly effective.

At the end of the sessions and the Stress Management Program, mothers were asked to evaluate the session or the program. According to the results, the sessions did not show any difference; however only in the third session in which the relaxation exercises and assertiveness training were given two participants reported that they could not relax because of not being able to focus on the instructions. One participant reported that she found the relaxation exercises boring and did not want to continue.

For the evaluation of the program, the mothers were asked to report the positive and negative aspects of the program. They stated that the length

of the program was short as a negative aspect. Then, more topics would be discussed in these sessions. Furthermore, it was also said that group sessions would be more beneficial in terms of sharing experiences and thoughts. Some participants also stated that hearing their child's voice made it difficult to concentrate on the session.

When they were asked about the most useful aspects in the program, they stated that they corrected the information they had about stress. How stress affects their lives, what anger management is, how to use time effectively, what can be done to cope with stress, how to relax, how to behave assertively and evaluating thoughts were the topics that mentioned in evaluations of the participants. The most mentioned issue was anger management in these evaluations. This may show that the easiest technique to apply was related to anger management or that the mothers of children with autism need to learn how to manage anger the most.

Besides the interventions in the Stress Management Program, the participants stated that the information given in the program was clear and easy to understand. The communication of the trainer was appreciated and the participants mentioned that speaking with someone was another positive aspect of the program. They also stated that since they realized they could do more than they thought, they became more self-confident and determined.

4.2 Limitations and Shortcomings of the Study

The results of the present study should be interpreted in the context of some limitations. First of all, the sample size was small to get reliable results. With a larger sample, the results would be more demonstrative.

Second, there were some difficulties encountered during the application of the Stress Management Program. The sessions were arranged according to the hours of lessons of the child with autism. As the child was

conveyed by its trainer, the mother was invited to the session. In some sessions, the outbursts of the child with autism affected the sessions so that the mothers were not able to concentrate. In other words, the problems about the children made it difficult for the mothers to focus on the sessions. Also the number of sessions may be increased. In this program, a technique was discussed in each session and the application was needed to be done out of the sessions. However, more exercising may be needed so that there would be more sessions.

Another limitation was about the third administration of the scales. There was a difficulty in reaching the participants in the control group. The data collected from the control group one month after the Stress Management Program was not enough for statistical analysis, so whether there was a between-group difference in depression, anxiety and suicidal probability was not evaluated one month later.

Self-reports were used for the assessment of stressors, levels of depression, anxiety and suicidal probability. The data can be biased in this sense. As the depression and anxiety level of participants in the intervention group were insignificantly higher than the participants in waiting-list group, they might be more willing to express their situations whereas the waiting-list group might be less willing to state. Furthermore, Yirmiya et. al. (2005) reported that parents reported more psychiatric difficulties when self-reports were used. Then, assessment by a clinician might also be used in the study.

4.3 Recommendations for Future Research

Through taking into the account of this study, several recommendations might be made for future research. First of all, the Stress Management Program could be improved and redesigned. The number of sessions can be increased and the content could be enhanced. It could be applied as group sessions so that mothers could share their experiences.

Furthermore, husbands and the other family members could be included in the program. This would increase the support among the family members. Also gender differences in stress, depression, anxiety and suicidal probability of parents of children with autism in Turkey might be a focus of study by including the husbands.

A follow-up was made one month after the Stress Management Program in the present study. However, a later follow-up might help better to evaluate the effectiveness of the program.

There might be some other variables that could influence the effectiveness of the program. The extent of the coping sources' effectiveness is an aspect that how a stressed a person is depends on (Lazarus, 1974; cited in Cooper & Dewe, 2004), so coping strategies and sources should be taken into account as well. Social support is another important issue which can be effective in depression and suicidal probability. The participants might be attaining social support in workplace, from relatives or friends whereas some of them might be socially isolated. Furthermore they might be blamed by the relatives or other people because of the child's situation. This may lead to further problems for the mothers of children with autism. In the present study, the results might be different if social support was taken as a confounding variable. Then, the social support attained by the participants could be specified in the future research.

Protective and risk factors for suicide could be assessed and studied in the future research as well. These may change depending on the demographic variables of the participants. Assessing the protective factors and risk factors may help to have a greater control on the other variables.

Hopelessness is a key factor depression and suicidal probability, so it can also be investigated to evaluate effects of training programs like the one

in the present study. Hopelessness caused by depression may lead to the thought that there is no other way out and suicide is the only solution. Then, the effects of stress on hopelessness may be also a focus in researches conducted about stress, depression and suicidal probability.

Some characteristics of children might also be investigated. The age of the child, the severity and nature of the child's condition, the age of diagnosis for autism should also be taken into account since there would be differences although they had the same diagnosis. The number of siblings might also be important. The characteristics of mothers could also be evaluated. Age, education, socioeconomic status of the mothers and whether they were occupied or not should be considered.

In order to obtain a considerably strong evidence for the effectiveness of Stress Management Program in depression, anxiety and suicidal probability, it is recommended to take coping strategies and sources, social support, protective and risk factors for suicidal probability, hopelessness, gender differences, characteristics of children and characteristics of mothers and to improve and redesign the program. After revising the program a booklet for stress management training of mothers of children with autism can be developed.

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APPENDICES

APPENDIX A

Beck Depression Inventory (Beck Depresyon Envanteri)

Aşağıda kişilerin ruh durumlarını ifade ederken kullandıkları bazı cümleler verilmiştir. Her madde, bir çeşit ruh durumunu anlatmaktadır. Her maddede o ruh durumunun derecesini belirleyen 4 seçenek vardır. Lütfen bu seçenekleri dikkatle okuyunuz. Son bir hafta içindeki (şu an dahil) kendi ruh durumunuzu göz önünde bulundurarak, size en uygun olan ifadeyi bulunuz. Daha sonra, o maddenin yanındaki harfin üzerine (x) işareti koyunuz.

Örnek Maddeler:

- (a) Her şeyden eskisi kadar zevk alabiliyorum.
(b) Her şeyden eskisi kadar zevk alamıyorum.
(c) Artık hiçbir şeyden gerçek bir zevk alamıyorum.
(d) Bana zevk veren hiçbir şey yok. Her şey çok sıkıcı.
- (a) Eskisi kadar rahat uyuyabiliyorum.
(b) Şu sıralarda eskisi kadar rahat uyuyamıyorum.
(c) Eskisine göre 1 veya 2 saat erken uyanıyor ve tekrar uyumakta zorluk çekiyorum.
(d) Eskisine göre çok erken uyanıyor ve tekrar uyuyamıyorum.

Geliştiren:

Beck, A. T., Steer, R. A. & Garbin, M. G. (1988). Psychometric properties of the Beck Depression Inventory; Twenty –five years of evaluation, *Clinical Psychology Review*, 8, 77-100.

Çeviren:

Hisli, N. (1988). Beck Depresyon Envanteri'nin geçerliliği üzerine bir çalışma. *Psikoloji Dergisi*, 6(22), 118-122.

APPENDIX B

Beck Anxiety Inventory (Beck Anksiyete Envanteri)

Aşağıda insanların kaygılı ya da endişeli oldukları zamanlarda yaşadıkları bazı belirtiler verilmiştir. Lütfen her maddeyi dikkatle okuyunuz. Daha sonra her maddedeki belirtinin bugün dahil son bir haftadır sizi ne kadar rahatsız ettiğini aşağıdaki ölçekten yararlanarak maddelerin yanındaki uygun yere (x) işareti koyarak belirleyiniz.

0. Hiç derecede 1. Hafif derecede 2. Orta derecede 3. Ciddi derecede

Örnek Maddeler:

- Bedeninizin herhangi bir yerinde uyuşma veya karıncalanma
- Sıcak / Ateş basmaları
- Bacaklarda halsizlik, titreme
- Gevşeyememe

Geliştiren:

Beck, A. T., Epstein, N., Brown, G. & Ster, R. A. (1988). An inventory for measuring clinical anxiety: Psychometric properties. *Journal of Consulting and Clinical Psychology*, 56, 893-897.

Çeviren:

Ulusoy, M. ,Şahin, N. ve Erkmen, H. (1996). Turkish version of the Beck Anxiety Inventory: Psychometric properties. *Journal of Cognitive Psychology: An International Quarterly*, 12(2). 153-162.

APPENDIX C

Suicidal Probability Scale (İntihar Olasılığı Ölçeği)

Aşağıda kişilerin çeşitli duygu ve davranışlarını anlatmak için kullanabilecekleri bazı cümleler verilmiştir. Lütfen sırayla herbir cümleyi okuyun ve okuduğunuz cümlenin sizin için hangi sıklıkta doğru olduğunu belirtiniz. Sizden istenen, her cümlenin sağ tarafındaki seçeneklerden size uygun olanın altındaki "D" harfini daire içine alarak işaretlemenizdir.

Hiçbir zaman	Bazen	Çoğu zaman	Her zaman
D	D	D	D

Örnek Maddeler:

- Başkalarını cezalandırmak için intihar etmeyi düşünürüm
- İnsanlardan koptuğumu hissederim
- Gittiğim zaman hiç kimsenin beni özlemeyeceğini düşünürüm

Geliştiren:

Cull, J. G. & Gill, W. S. (1990). Suicide Probability Scale. Los Angeles: Western Psychological Services.

Çeviren:

Eskin, M. (1993). Reliability of Turkish version of the Percieved from Friends and Family Scales, Scale for Interpersonal Behavior, and the Suicide Prpbability Scale. Journal of Clinical Psychology, 49, 515-522.

APPENDIX D

Demographic Information Form (Demografik Bilgi Formu)

Bu araştırma otizm tanısı almış çocukların annelerinin yaşadıkları stresin etkilerini araştırmak amacıyla yapılmaktadır. Çalışma üç aşamadan oluşmaktadır. Üç aşamada da aynı kişilere ulaşılabilmesi için isim yazmanız gerekmektedir. Anketlere verilecek cevaplar ve isimler araştırma amacı için kullanılacak ve kesinlikle gizli tutulacaktır.

Araştırma soruları hakkında danışmak istediğiniz herhangi bir şey olduğu takdirde veya sonuçlar hakkında bilgi edinmek isterseniz aşağıdaki telefona başvurmaktan lütfen çekinmeyiniz. Yardımlarınız için şimdiden teşekkür ederim.

Psikolog Burcu SEVİM

0 532 503 91 22

Adınız Soyadınız:

Yaşınız:

Eğitim durumunuz:

Medeni Durumunuz: () Evli () Boşanmış () Dul () Bekar

Çalışıyorsanız Mesleğiniz:

Çocuğunuzun Yaşı:

Çocuğunuzun Tanı Aldığı Yaş:

Geliştiren:

Yazar

Yazışma adresi: cloud2000psy@yahoo.com

APPENDIX E

Stressor Assessment Form (Stresör Deęerlendirme Formu)

Adınız:

Soyadınız:

Çocuęunuzun yaşı:

Ne zaman tanı konuđu?:

Sizde strese yol açtıęını düşünöđünüz 5 durumu en önemlisinden en önemsinine doęru yazarak açıklayınız.

1.

2.

3.

4.

5.

Geliřtiren:

Yazar

Yazıřma adresi: cloud2000psy@yahoo.com

APPENDIX F

Contract (Anlaşma)

ODTÜ Psikoloji Bölümü Yüksek Lisans eğitimi dahilinde Psikolog Burcu SEVİM tarafından yapılan bu çalışma, değerlendirme amacıyla uygulanacak anketleri ve 6 hafta sürecek olan “Stresle Başa Çıkma” eğitimini kapsamaktadır. Eğitim, her hafta 45 dakika olmak üzere 6 seanstan oluşmaktadır. Eğitime katılımın devamlılığı ve acil bir durum çıkması halinde katılımcının seansa gelemeyeceğinin önceden uygulamacıya bildirilmesi gerekmektedir. Eğitim süresince seansların bölünmemesi, cep telefonlarının kullanılmaması ve kapalı konumda tutulması, herhangi bir şey yenmemesi rica olunur. Eğitim boyunca ve anketlerde paylaşılan her türlü bilgi ve isimler gizli tutulacaktır.

Çalışmamıza katıldığınız için teşekkür ederiz. Araştırmayla ilgili danışmak istediğiniz herhangi bir şey olduğu takdirde veya sonuçlar hakkında bilgi edinmek isterseniz aşağıdaki telefona başvurmaktan lütfen çekinmeyiniz.

Psk. Burcu SEVİM : 0 532 503 91 22

Yukarıdaki açıklamayı okuduğumu taahhüt ediyorum.

.....

Geliştiren:

Yazar

Yazışma adresi: cloud2000psy@yahoo.com

APPENDIX G

Program Evaluation Form (Program Deęerlendirme Formu)

6 Seanslık Stresle Bařa ıkma Programının ne kadar yararlı olduęunu dűşünüyorsunuz? Lütfen iřaretleyiniz.

Hi	Az Derecede	Orta Derecede	ok
1	2	3	4

Eęitimde sizce neler yararlı olmuřtur? Yazınız.

Size gűre eęitimin olumsuz yűnleri nelerdi? Yazınız.

Geliřtiren:

Yazar

Yazıřma adresi: cloud2000psy@yahoo.com

APPENDIX H

Information Test

(Bilgi Testi)

Aşağıda Stresle Başa Çıkma programı boyunca ele alınan konularla ilgili bir test bulunmaktadır. Bu test, sizin bilginizi ölçmek amacıyla değil, eğitimin ne kadar öğretici olduğunu değerlendirmek amacıyla hazırlanmıştır. Lütfen doğru olduğunu düşündüğünüz şıkkı işaretleyin.

1. Aşağıdakilerden hangisi stres yaratan durumu ortadan kaldırmaya yönelik davranıştır?
 - a. Kaçma
 - b. Savaşma
 - c. Donma
 - d. Bastırma
2. Aşağıdakilerden hangisi uygun bir stresle başa çıkma yöntemidir?
 - a. Alkol kullanma
 - b. Gevşeme egzersizi
 - c. İçme kapanma
 - d. Saldırganlık
3. Öfke ne zaman sorun haline gelir?
 - a. Öfke hissettiğimizde durumla uygun bir şekilde başa çıkarsak
 - b. Öfkelendiğimizde karşımızdaki kişiye uygun şekilde ifade edersek
 - c. Öfkelendiğimizde saldırgan davranışlarda bulunursak
 - d. Derin nefes egzersizi uygulayarak öfkeyi kontrol altında tutmaya çalışırsak
4. Aşağıdakilerden hangisi öfke kontrolünde kullanılan bir teknik değildir?
 - a. Birisine bağırma
 - b. Yastık yumruklamak
 - c. İzometrik egzersizi
 - d. Derin nefes egzersizi
5. Aşağıdakilerden hangisi pasif (çekingen) davranışa bir örnektir?
 - a. Yardıma ihtiyacınız olduğunda yardım istemek
 - b. Eşinizle farklı fikirde olduğunuzda bunu ifade etmek
 - c. Bir kuyrukta beklerken birisi önünüze geçtiğinde sessiz kalmak
 - d. Vaktiniz yokken arkadaşınız sizden bir şey istediğinde reddetmek

6. Dinlenmek için kendinize ayırdığınız bir akşam, eşinizin bir aile dostunuzu davet ettiğini öğrendiniz. Bu sizi çok öfkелendirdi ve eşinizi düşüncesizlikle suçlayıp bağırdınız. Bu hangi davranışa bir örnektir?
- Pasif (çekingen) davranış
 - Saldırgan davranış
 - Girişken davranış
 - Hiçbiri
7. Aşağıdakilerden hangisi ertelemeye neden olan inançlardan biri değildir?
- Hiçbir şey yapmaktan bir kısmını yapmış olmak daha iyi.
 - Mükemmel yapamayacaksam hiç yapmayayım
 - Yapmaktan korkuyorum çünkü hata yapabilirim
 - Yapmaya çalışmayayım çünkü başarısız olabilirim
8. Aşağıdakilerden hangisi zamanı etkili kullanamamanın sebeplerinden biridir?
- Öncelikleri belirlemek
 - Kısa süreli hedefler belirlemek
 - Günü planlamak
 - Günlük yaşamda denge kuramamak
9. Aşağıdakilerden hangisi mantıklı olmayan düşünceye bir örnek olamaz?
- Çocuğunuzun karnesinde bir zayıf notu var. Siz onun okulu bitiremeyeceğini, başarısız bir çocuk olduğunu düşünüyorsunuz.
 - Yaptığınız her işte en iyi yapan olmanız gerektiğini düşünüyorsunuz.
 - Bu testte bir soruya cevap veremediniz; başarısız olduğunuzu düşünüyorsunuz.
 - Eşiniz size haksız yere kızdı ve kırıcı davrandı. Sonra pişman oldu. Herkesin zaman zaman sinirlenebileceğini ve hata yapabileceğini düşünüyorsunuz.
10. Aşağıdaki ifadelerden hangisi yanlıştır?
- Mantıklı olmayan inançlar değiştirilemez.
 - Mantıklı olmayan inançlarımız stres yaşamamıza sebep olur.
 - "Hayat adil olmalıdır" inancı öfke hissedeceğimiz durumlar yaşamamıza yol açar.
 - İnançlar mantıklı da olabilir mantıksız da

Geliştiren:

Yazar

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