A COMPARATIVE STUDY OF FAMILY FUNCTIONING PROCESSES OF FAMILIES WITH A CHILD WITH AUTISM IN TURKEY AND IN THE UNITED STATES

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ABSTRACT

A COMPARATIVE STUDY OF FAMILY FUNCTIONING PROCESSES OF FAMILIES WITH A CHILD WITH AUTISM IN TURKEY AND IN THE UNITED STATES

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This study aimed to investigate the differences in parenting stress, coping ways, and family functioning variables of families with a preschool-aged child with autism from Turkey and from the United States (U.S.) and to find out how the factors of parenting stress, coping ways, and social support predict the adaptability of the families in terms of cohesion and flexibility in families of children with autism from Turkey and from the U.S. For this study, only the mothers of a child with autism aged between two and seven years old are included from both cultures. Multivariate Analyses of Covariance (MANCOVA) were conducted for comparing the mothers from both cultures in terms of parentig stress, coping ways, and family functioning variables. According to these analyses, while mothers did not diffenentiate for parenting

stress variable, both groups of mothers were found to use different coping ways and to show different family functioning characteristics. Turkish mothers were found to use more problem-focused coping ways than their American counterparts. Moreover, mothers from Turkey were found to report higher flexibility and enmeshment than mothers from the U.S. In order to find out the predictors of family cohesion and flexibility, series of Hierarchical Multiple Regression Analyses were conducted for both groups of mothers separately. These analyses revealed different predictors of family cohesion and flexibility for mothers of children with autism from Turkey and from the U.S. The differences in group comparison and regression analyses were discussed in accordance with the relevant literature.

Keywords: Autism, Developmental Disabilities, Family Functioning, Coping Ways, Comparison Study

ÖZ

AMERİKA VE TÜRKİYE'DE OTİZMİ OLAN ÇOCUKLARI
BULUNAN AİLELERİN
AİLE İŞLEVLERİNE DAİR SÜREÇLERİN
KARŞILAŞTIRMALI ÇALIŞMASI

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Bu çalışma, okul öncesi yaşta otizm tanısı almış çocuğu olan Türk ve Amerikan ailelerinde, ebeveyn stresi, başa çıkma yolları ve aile işlevleri değişkenlerindeki farklılaşmaları araştırmayı ve her iki örneklem grubu için, ebeveyn stresi, başa çıkma yolları ve sosyal destek değişkenlerinin bağlılık ve esneklik düzeyleri açısından aile uyumunu yordayıcılarını bulmayı amaçlamıştır. Bu çalışma için her iki kültürden, iki ve yedi yaş aralığında otizm tanısı almış çocuğu bulunan anneler dahil edilmiştir. Otizm tanısı almış çocuğu bulunan iki ülke annelerini ebeyen stresi, başa çıkma yolları ve aile işlevleri açısından karşılaştırmak amacıyla Çok Değişkenli Kovaryans Analizleri (MANCOVA) uygulanmıştır. Bu analizlere gore, Türk ve Amerikan anneler,

ebeveyn stress düzeyleri açısından bir farlılık göstermezken, başa çıkma yolları ve aile işlevleri özellikleri bakımından farklılık göstermişlerdir. Türk annelerin Amerikan annelerden daha fazla problem odaklı başa çıkma yollarını kullandıkları bulunmuştur. Ayrıca, Türk annelerin aile işlevlerinden esneklik ve içiçe geçme düzeylerinin Amerikan annelerden daha yüksek olduğu bulunmuştur. Aile bağlılık ve esneklik yordayıcılarını bulabilmek için Türkiye'den ve Amerika'dan otizm tanısı almış çocuğu bulunan anneler için ayrı ayrı Adımsal Çoklu Regresyon Analizleri uygulanmıştır. Bu analizler Türk ve Amerikan anneler için farklı aile bağlılık ve esneklik yordayıcıları olduğunu ortaya çıkarmıştır. Grup karşılaştırma ve regresyon analizlerinin sonuçları ilgili literatürle bağlantılı olarak tartışılmıştır.

Anahtar Kelimeler: Otizm, Gelişimsel Bozukluklar, Aile İşlevleri, Başa Çıkma Yolları, Karşılaştırmalı Çalışma

To my family

&

To my love

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DSM-IV-TR: Diagnostic and Statistical Manual for Mental Disorders – Fourth Edition – Text Revision

FACES IV: Flexibility and Cohesion Evaluation Scales – Fourth Edition

MMFAD: McMaster Family Assessment Device

PSI/SF: Parenting Stress Index / Short Form

SDQ: Strengths and Difficulties Questionnaire

SSQ: Social Support Questionnaire

U.S.: United States

WAYS: Ways of Coping Questionnaire

CHAPTER 1

INTRODUCTION

The present study investigates family functioning processes of families by focusing on mothers of preschool children with autism spectrum disorder from two different cultures, namely Turkey and the United States (U.S.). The primary aims of the present study can be presented in two main categories. First aim is to compare the variables of parenting stress, social support levels, coping strategies, and family functioning processes across mothers from Turkey and the U.S. and the second aim is to outline the predictors of family functioning processes among parenting stress, coping, and social support variables separately for two groups of mothers of children with autism spectrum disorder. In the following section, the main points of this study along with the related background information are outlined. After introducing the most relevant concepts about the study, the significance and expected implications of the current research are focused on.

1.1 Background Information for the Topic of the Study

Autism is a developmental disorder which is usually diagnosed in childhood, affects development and continues throughout life. Since autism is a disorder that affects the entire mental development, different symptoms emerge at different ages which should be evaluated accordingly (Frith, 2003). Leo

Kanner and Hans Asperger were the pioneers who identified this peculiar disorder. Both Kanner and Asperger, independent from each other, used the same term “autism”, in order to identify and classify the disorder (Asperger, 1944; Kanner, 1943).

For the diagnosis of autism, certain behavioral criteria are used as an international convention. According to the fourth edition of Diagnostic and Statistical Manual of Mental Disorders – Text Revision (DSM-IV-TR; American Psychiatric Association, 2000), there are three main criteria used for the diagnosis of autism. First of all, the qualitative impairment in social interaction must be present in accordance with developmental level. The impairment in reciprocal social interaction usually emerges as persistent and gross manner. Very limited use of eye contact and gestures in regulating social interaction and communication can be categorized among behavioral signs of this specific criterion. Different from their typically developing peers, children with autism tend to focus on the world of objects rather than people around. As a second criterion, there must be qualitative impairment in communication to the appropriate developmental level. Since communication does not solely mean language, this impairment should be considered as a deficit in both verbal and nonverbal communication. Lack of speech or delay in language acquisition, as well as lack of spontaneous pretend-play is among the most important behavioral signs of this second category. Lastly, the restricted repetitive and stereotyped patterns of behavior, interests, and activities must exist relative to the appropriate developmental level. Behavioral indicators of

this final category emerge as repetitive or stereotyped movements. These movements exist in an abnormally intense and narrow manner and behavioral signs include simple motor stereotypes such as hand flapping, scratching, or swinging (DSM-IV-TR; American Psychiatric Association, 2000).

According to the recent prevalence studies, autism is regarded as the most common disorder among the pervasive developmental disorders (Bryson & Smith, 1998). Considering the former and recent prevalence studies (Chakrabarti & Fombonne, 2001; Kanner & Eisenberg, 1956; Lotter, 1966; Wing & Potter, 2002), there appears to be a remarkable increase in prevalence rates. However, this change has also been considered controversial. There is an ongoing debate about whether the increase reflects an actual increase in prevalence or whether it is a result of changes in the diagnostic criteria for Autism Spectrum Disorders over time coupled with heightened awareness on the part of parents (Frith, 2003). Nevertheless, this discussion will continue as long the required comparative data on prevalence and on demographic and other associated psychological and biological characteristics are not conducted (e.g., Bryson & Smith, 1998). Meanwhile, according to the results of prevalence studies, the ratio of males to females has not changed over time and remains three to four times more in males than females (Lord, Schopler, & Revicki, 1982).

Family life cycle is a term used to describe developmental trends over time within a family. Having a child is an important decision and means entering a new stage in the family life cycle, namely, families with young

children. When a new member joins the family, a couple has to adjust their life accordingly. All of their daily activities have to be rearranged in accordance to the schedule of the newborn; such as working life outside the house, relationships with friends, and spare time activities (Carter & McGoldrick, 1988). From this point of view, parenting, as a concept, is a new and challenging issue. Within any family unit, the responsibilities that come with the newborn can sometimes be frustrating and overwhelming. Crnic and Greenberg (1990) conducted a study to investigate minor parenting stresses within the specific context of parent-child relationship. They tried to identify frequency and intensity of daily hassles associated with parenting and to explore their relationships with parenting, family system, and dyadic interaction indicators. They found minor parenting hassles to be an important source of stress within the parent-child context.

Even parenting a typically developing child requires a family to readjust itself to this new stage and it creates some level of stress, parenting a child with disability inevitably multiplies the amount of stress experienced by parents. Several past studies have indicated that having a child with disability put the parents in a risk of experiencing heightened levels of stress compared to parents of typically developing children (Bradley, Rock, Whiteside, Caldwell, & Brisby, 1991; Dumas, Wolf, Fisman, Culligan, 1991; Hendriks, DeMoor, Oud, & Savelberg, 2000; McKinney & Peterson, 1987; Smith, Oliver, & Innocenti, 2001). Gallegheri, Beckman, and Cross (1983) proposed, in their hypothesis of parental stress-reaction, that having a child with severe disability

puts parents in a chronic state of psychological stress. This chronic stress situation is generally based on the demanding nature of raising a child with disability and consequently is manifested in psychological difficulties on the whole family unit. Baxter, Cummins, and Polak (1995) conducted a 7-year longitudinal study to assess parental stress and support variables starting from diagnosis period. They concluded that diagnosis of disability was the most stress-inducing life event related to raising a child with disability. When parents are faced with the situation of having a child with disability, they experience a sequence of stages similar to those associated with the grieving process, such as reacting with denial, shock, anger, and finally adjustment (Seligman & Darling, 1989).

While some studies have focused solely on individuals with autism, more recently there have been studies that also looked at children with autism within a family context. Even among parents raising children with developmental disabilities, parenting a child with autism is uniquely challenging and can be extremely stressful (Bouma & Schweitzer, 1990; Dumas et al., 1991; Holroyd & McArthur, 1976; Rodrigue, Morgan, & Geffken, 1990; Sanders & Morgan, 1997; Smith et al., 2001). Therefore, it is important first to clarify how autism differs from other developmental disabilities and then emphasize uniquely challenging manner of this disorder for parents especially for mothers as a primary caregivers. Firstly, the frequency and breadth of maladaptive behaviors differentiate the diagnosis of autism from other developmental disabilities. Children with autism tend to

display inappropriate social behavior and their awareness of others' needs and distress is often markedly impaired. They have restricted, repetitive, and stereotyped patterns of behaviors, and have marked and continuous impairment in both verbal and nonverbal communication, eye contact, and affection (DSM – IV; American Psychiatric Association, 2000). Furthermore, children with autism frequently show severe behavioral problems such as self-injurious behavior, physical aggression, excessive physical activity, repetitive verbalization in loud manner, and extraordinary sleeping patterns. All of these challenging behaviors have a tendency to occur in a high rate throughout childhood and continue into adulthood with developmental changes (Sanders & Morgan, 1997). Secondly, some unique characteristics of autism spectrum disorder make the situation challenging for parents. Autism cannot be recognized at birth because biological markers for autism have not yet been found and the disorder is not generally identifiable from physical appearance (Sanders & Morgan, 1997). Although the earliest behavioral signs of autism are well categorized, diagnosticians need to know where to look. Behavioral observations and psychological tests provide the key to the correct diagnosis. It is especially difficult for parents to recognize the first signs of autism or to differentiate some of their behavioral observations which deviate from the typical developmental level but could not be evaluated as a significant sign by itself. When parents first start to be suspicious that something may be wrong with their child, they begin to seek professional help and try to find the correct address. Since the evaluation process of diagnosis is mainly based on the

behavioral observations and psychological tests, any assessment on behavioral criteria take a certain period of time (Frith, 2003). As time passes during the assessment process, parents begin to experience heightened distress because of the prolonged ambiguity they experience. On the other hand, receiving diagnosis is not usually experienced as relief for mothers. Mothers of children with autism appear to be the ones who experience a greater stress level within the family unit, since they feel greater responsibility as primary caregivers and assume greater burden (Wolf, Noh, Fisman, & Speechley, 1989). When mothers receive the diagnosis of autism for their child, they have to face a combination of emotions such as grief, shock, confusion, fear, worry, isolation, anger, numbness, and sadness (Siegel, 1997; Sullivan, 1997). Clear biological definitions in terms of etiology of autism do not yet exist and diagnosis at birth is not yet available. Consequently, mothers of children with autism may have a tendency to blame themselves for either the background of their child's condition or their child's developmental difficulties which inevitably create greater increased responsibility and significant source of stress especially for the mothers (Rodrigue et al., 1990). To summarize, difficulty in diagnosis due to the absence of concrete biological markers and absence of physical cues by appearance make the situation for parents harder to accept and understand. Moreover, even after parents come to terms with and accept their child's diagnosis, they have to deal with the next burden of social understanding and acceptance. When a child's challenging atypical behavioral characteristics and normal physical appearance come together, the situation becomes much more

complicated to explain within the wider community and relatively poor understanding of autism by the general public may create insensitive reactions which consequently exacerbate parents' stress levels. The nature of autism and the subsequent behaviors associated with children with autism are among the main reasons which put an excessive amount of demand on the family (Tomanik, Harris, & Hawkins, 2004) and these characteristics are significantly related to parental stress levels (Donenberg & Baker, 1993).

In the light of existing literature, autism can be regarded as a chronic illness and having a child with autism creates an extreme source of stress for families. Despite the fact that a great amount of stress results from the difficulties of having a child with autism, families look for ways to cope with the situation and adjust their family balance accordingly and some families ultimately cope with autism better and more successfully than others (Gray, 1994). Coping is defined as "constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (Lazarus, 1998, p. 201). Coping is viewed as a reaction to the stressful situation and a dynamic process that changes over time. As a term, coping does not simply imply success or healthy behavior and the process can have little impact on the stressor or may even deteriorate the situation. Among the numerous efforts to categorize coping responses, Folkman and Lazarus (1980) attempted to divide coping techniques into two major categories, namely, problem-focused and emotion-focused. As the problem-focused coping strategies directly focus on the

problem and then work on the possible solutions, emotion-focused coping strategies aims primarily to lessen emotional distress in response to stressful stimuli. Coping as a process includes responses both in the form of behaviors and thoughts. Although the question of what type of coping responses are considered more healthy and effective, it is essentially important to keep in mind that there may be no right or wrong coping processes that are universally accepted. On the contrary, the effectiveness of a specific coping response should only be evaluated within its context (Lazarus, 1993).

Typically, in Western societies where an individualistic culture prevails, people seem to have a tendency to take action against the problem itself rather than reinterpreting or reappraising the relational meaning of the problem. This essentially means that individuals from individualist cultures are more likely to use problem-focused coping strategies than those that are emotion-focused. The process is reversed thought to happen in collectivist cultures. However, under some certain conditions, specifically for those in which nothing seems helpful to change the situation, using problem-focused strategies may not work and they even worsen the situation. For such situations, emotion-focused efforts may turn out to be a better choice of coping (Collins, Baum, & Singer, 1983).

Having a child with disability can produce great amount of stress and a feeling of imbalance within the family system. In order to alleviate and cope successfully with parental stress, they need to have some important sources. Social support is another important factor which helps families manage the

situation (Bristol, 1984; Dyson, 1997). Sharpley, Bitsika, and Efremidis (1997) conducted a study to determine whether psychological distress experienced by having a child with autism was related to gender and could be lessened by social support. They found that while mothers reported more psychological distress than fathers, they also had higher levels of confidence in terms of managing with the difficulties of having a child with autism. Moreover, according to the results of the study, parents who could get sufficient amount of social support from other family members experienced less psychological distress. It has been found that social support plays an important role to lower parental stress especially for the mothers of children with autism (Krauss, 1993). As a comprehensive research on the relationship between stress and social support for mothers of children with autism, Boyd (2002) conducted a review study. This study showed that both parent and child characteristics have significant role in parents' decision to seek social support. Among child related characteristics, cognitive limitations and problem behaviors are considered the most significant ones, because cognitive limitations are a potential sign of long term dependency and problem behaviors create challenges not only within the family unit but also publicly. Both of these difficulties have also a potential to limit parents' social support sources.

While some families function well with situations which require change and cope well, some others fail in this aspect. Since, there is a reciprocal relationship among the family members, for the entire family to be able to successfully cope with the situation, all roles and rules should be reshaped

(Seligman, 1999). For instance, when a family has a child with disability, this situation has implications for the parents, the other children in the family, and even the extended family. When facing a challenging situation, the family needs to have certain organizational components within its repertoire such as flexibility, cohesion, and communication. Cohesion and flexibility constructs have a great importance in the description of families. Cohesion is defined as the emotional connection among family members that keep them together as a system. Flexibility, as for another important concept, reflects the amount of change in the role and rule relationships among family members in response to change. Olson's (2000) Circumplex Model of Marital and Family Systems is based on these two primary dimensions of cohesion and flexibility. The main hypothesis of this model is that each cohesion and flexibility has a curvilinear relationship with family functioning. It is hypothesized that moderate levels of cohesion and flexibility are indicators of healthy family functioning. If the relationship between these concepts and family health are considered as in a curve shape, while the midpoints of this curve represent the highest levels of health in family functioning, two extreme points of this curve, on the other hand, represents the lowest levels of family functioning. According to the curvilinear hypothesis of the Circumplex Model, very low and very high levels of cohesion and flexibility are both considered as indicators of unhealthy family functioning. For any family system, a balance in terms of both cohesion and flexibility is related to healthy family functioning (Gorall, 2002; Gorall & Olson, 1995; Olson, 2000; Tiesel, 1994). Three main hypotheses are derived

from the Circumplex Model. Firstly, it is proposed that families that have balanced cohesion and flexibility would function better than unbalanced families. For a family system being balanced does not mean always to function within the moderate levels of cohesion and flexibility, they may even experience the extreme levels of these dimensions but not for a long time. As a second hypothesis, positive communication skills among family members are considered to enable balanced family units to adjust their cohesion and flexibility levels accordingly. As the last hypothesis, in response to situational stress and developmental changes across family life cycle, families would conduct appropriate modifications in their cohesion and flexibility levels in order to deal with the situation more effectively. The Circumplex Model is dynamic in nature such that changes can occur in family types over time. Whenever a family member desires for change, the system must adjust itself through that request. Moreover, balanced family systems are able to shift their system in an effective way in order to deal with a crisis. On the other hand, unbalanced family systems do not have the resources and skills to cope with a crisis. They experience more difficulty in adapting to the crisis situation (Olson, & Gorall, 2003). Dimensions like cohesion and flexibility in families with children with autism, which involve emotional relationships among family members as well as dyadic interactions, are important to explain the variance in how families react to and over time adjust to ongoing developmental stresses (Farrell & Barnes, 1993).

At last point, it is crucial to emphasize the cultural aspects of family development and family functioning. Value system, rules, and the structure of the family unit have been formed through the societal demands which show variances across time and cultures (Kağıtçıbaşı, 1996a). In the light of this assumption, Kağıtçıbaşı (1996a, 1996b) has proposed a model of family change which analyzes the link between the self, family, and society in order to explain cultural differences. This model identifies three family interaction patterns: pattern of total interdependence, pattern of independence, and pattern of psychological interdependence (Kağıtçıbaşı, 1996a, 1996b, 2005). The first pattern has its roots in the traditional rural agrarian societies. The child is seen as the economic value for the family in order to provide a secure future for parents, which in turn puts great emphasis on high fertility. The child's economic value includes both material and psychological dependencies. In the pattern of interdependence, which was found in Asia, for example, the independence of the child is not valued and evaluated as a threat to livelihood of the family unit, because the economic value of the child as parents' old age security could be only secured by total interdependence of the child. Therefore, obedience is the essential of the childrearing. The second pattern of family interaction, which can be observed in the Western middle-class societies, such as the United States, is the exact opposite of the pattern of interdependence. Other than seeing the child as a source of economic value, in such societies, the child is seen as the main source of economic costs. In this pattern, independence of the child is highly valued and is not evaluated as a threat to

family livelihood. Autonomy is the basic childrearing orientation. The third pattern, the pattern of psychological interdependence, is seen as the result of globalization. As with the socioeconomic developments, material aspect invested on the interdependence of the child has become weakened by giving way to psychological interdependence. Although, autonomy is mostly valued in childrearing practices, the ultimate goal is set as closeness and relatedness, not as separateness. According to Kağıtçıbaşı (1996a), Turkish culture is an example of the last family interaction pattern, namely the pattern of psychological interdependence.

1.2 Aims of the Study

In the light of the relevant literature presented in the previous section, the aim of this study is to find out the differences in family functioning processes of the families with a preschool-aged child with autism differ across two cultures, namely Turkish and American culture. As stated in the last part of the previous section, family interaction patterns and consequently childrearing practices of Turkey and the U.S. have been assumed to be relatively different in terms of societal values, norms, and structures (Kağıtçıbaşı, 1996a, 1996b).

For the current study, the mothers of a child with autism aged between two and seven years old are included both from Turkey and the U.S. Including only mothers of children with autism has some empirical base as indicated in the background information section (e.g., Rodrigue et al., 1990; Wolf et al., 1989). To mention briefly, mothers as primary caregivers experience the

greater stress while raising a child with autism. Especially for the preschool-aged children with autism, mothers are still likely to be struggling with their child's diagnosis and uncertainty of the situation (Rodrigue et al., 1990).

First aim of the study is to investigate the differences in terms of parenting stress levels, coping strategies, and family functioning processes reported by the mothers of children with autism from Turkey and the U.S. Furthermore, the current study also aims to examine to what extend the variables of stress, coping strategies, and social are associated with the family health indicators of cohesion and flexibility for mothers of children with autism from Turkey and from the U.S.

Regarding presented aims, this current study proposes to answer the following research questions:

1. Do parental stress factors of parenting distress, difficult child, and parent-child dysfunctional interaction differ between the mothers of a child with autism from Turkey and the U.S.?

2. Do coping ways of problem-focused and emotion-focused differ between the mothers of a child with autism from Turkey and the U.S.?

3. Do family functioning factors of cohesion, flexibility, disengagement, enmeshment, rigidity, and chaotic differ between the mothers of a child with autism from Turkey and the U.S.?

4. What are the predictors of family functioning processes for the mothers of a child with autism from Turkey and the U.S.?

a. Do parenting stress, coping strategies, and social support variables predict family functioning variables of cohesion, flexibility, and total circumplex ratios for mothers of children with autism from Turkey?

b. Do parenting stress, coping strategies, and social support variables predict family functioning variables of cohesion and flexibility, and total circumplex ratios for mothers of children with autism from the U.S.?

1.3 Significance of the Study

One of the significant aspects of the present study is to provide two important measures into Turkish culture, namely Parenting Stress Index / Short Form (PSI/SF, Abidin, 1995b) and Flexibility and Cohesion Evaluation Scales – Fourth Edition (FACES IV, Gorall, Tiesel, & Olson, 2004). The PSI/SF was originally developed to assess the facets of child characteristics, parent characteristics, family context, and life stress events of the parent-child system. It is crucially important to highlight that this instrument is classified as a screening and diagnostic assessment tool, designed to measure above mentioned aspects in the parent-child system for the parents of children as young as one month old (PSI/SF, Abidin, 1995b). Considering the unique features of this measure and the absence of screening device, which has comprehensive features in terms of parent-child system, in Turkish; this study has a significant role to adapt this reliable, valid, and widely used measure into

Turkish culture. Additionally, the fourth edition of FACES (FACES IV, Gorall et al., 2004) is proposed as a second adaptation research of this study. This measure, along with the specific feature of covering the full continua of the cohesion and flexibility dimensions from the Circumplex Model of Marital and Family Systems (Olson, Russell, & Sprenkle, 1989a; Olson, Russell, & Sprenkle, 1979), may provide an important advance to family therapy applications and family research conducted in Turkey.

As the second but not least significance of the current study, while the psychological well-being of parents' of children with developmental disabilities and autism has been studied in Turkish culture, there seems to be no studies conducted on the cohesion and flexibility dimensions with parents of children with autism in Turkey. Furthermore, this study not only stands out as the first attempt in Turkey to focus on family functioning processing within the families of children with autism but also within families overall. The present study also constitutes the first attempt as the cross-cultural study conducted in Turkey in terms of delineating the contributors of family functioning processes in mothers of children with autism.

This study may also have an important contribution on the coping literature. Despite culturally accepted coping strategies are available and studied on liberally, the coping strategies used in response to chronic stressful situations have still remained questionable. Since the present study is conducted with the mothers of children with autism from two different cultures, it may have important contributions on the coping literature in terms

of parents' reactions in response to chronic stress situations. In addition, the cross cultural aspect of this current study may also play a significant role as a guide to further cross cultural studies in terms of proposed cultural differences of coping strategies.

It is important to asses what type of coping mechanism predict family cohesion and flexibility in terms of determining healthy family functioning variables for the families with a child with autism. The most important contribution of this current study is that determining the above mentioned predictors in two different cultures as representing different family interaction patterns (Kağıtçıbaşı, 1996a, 1996b). Seeing that the existence of correct coping process is still debatable (Lazarus, 1993), evaluating predictors of family functioning processes in terms of cultural aspects would contribute to the related literature great deal.

1.4 Implications of the Study

Since the adaptation studies as part of this current study were conducted based on the original sampling characteristics of the measures' development studies, Turkish version of both measures would turn out to be appropriate for scientific research purposes other than autism research. Application of the adaptation study according to the original development study does not make the measures valid just for national scientific researches, but also it creates an expansion for other cross cultural studies. As a final point, since both of the

measures are known as powerful tools both for clinicians and researchers, the implication of these measures has eventually been expected to be pervasive.

This study is conducted with the clinical sample from two different cultures, thus the results will definitely have implications in terms of cultural differences of having a child with autism. With respect to the methodology of this study, the results may serve to adapt clinical intervention programs accordingly and may also create an expansion to the family support programs more responsive to cultural differences especially for the multicultural societies. Other than cross-cultural implication, outlining the health of family system functioning for the families of children with autism from each culture would also help clinicians have benefit specific to their culture and in turn improve existing intervention programs for these families.

In terms of generalization of the findings of the current study, other than the researchers and clinicians who especially work with the children with autism and their parents, this study would have important findings which may lead to the researchers and clinicians to evaluate other chronic childhood disorders. Moreover, the findings may shed light on the further cross cultural research on other chronic childhood disorders and on developing more effective family intervention programs in general.

CHAPTER 2

REVIEW OF RELATED LITERATURE

This chapter reviews the related literature in three sections in accordance with the presented aims of the study. In the first section, the definition of Autism Spectrum Disorders is presented with respect to diagnostic classification by the fourth edition of Diagnostic and Statistical Manual of Mental Disorders – Text Revision (DSM-IV-TR; American Psychiatric Association, 2000) and prevalence studies. The second section is presented under the general category of associates of family functioning processes among the variables of parenting stress, coping, and social support and highlights both the definition and theories of the terms and the related empirical studies. Thirdly, studies conducted in Turkish culture are presented.

2.1 Definition of Autism Spectrum Disorders

Autism is a disorder of development. While autism has impediments over development, development also has impacts on the progress of autism. Some specific features of autism are observable in certain stages of development, whereas, some others disappear over time. Since the symptoms of autism start in the early childhood, there is a widespread misunderstanding that it is a childhood disorder. Autism is not a childhood disorder; it is only diagnosed during childhood. It is a developmental disorder, and therefore its

behavioral symptoms show variations with age and ability. Impairments in socialization, communication, and imagination, as the core features of autism, differ at all stages of development and all levels of ability (Frith, 1991; 2003).

Autism was first introduced by two scientists, Leo Kanner (1943) and Hans Asperger (1944). The initial theoretical attempts to explain autism came from the studies of these two pioneers. Both Kanner and Asperger used the term autistic in order to label the underlying disturbances. Asperger's definition of autism was far wider than Kanner's and also it has been labeled later on as Asperger Syndrome in order to identify cases considered to mild to be diagnosed as autism. Kanner (1943) included 11 children, nine boys and two girls in his paper, entitled "Autistic disturbances of affective contact". He highlighted the uniqueness of these cases in his paper. Detailed observations with these eleven children, Kanner identified a number of essential common characteristics that appeared among them. According to his formulation, these common characteristics came from a unique syndrome, which Kanner initially called "*inborn autistic disturbances of affective contact*" (Kanner, 1943, p. 250).

2.1.1 Classification of Pervasive Developmental Disorders by the Diagnostic and Statistical Manual of Mental Disorders – Fourth Edition – Text Revision (DSM-IV-TR)

In the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders – Text Revision (DSM-IV-TR; American Psychiatric Association,

2000), Pervasive Developmental Disorders are defined as the presence of severe and pervasive developmental impairments disseminated in several areas. These areas can be categorized as impairments in reciprocal social interaction skills, in communication skills, and the presence of stereotyped behavior, interests, and activities. These qualitative impairments are defined as they are significantly deviant relative to individual's developmental level and mental age. Pervasive Developmental Disorders include Autistic Disorder, Rett's Disorder, Childhood Disintegrative Disorder, Asperger's Disorder, and Pervasive Developmental Disorder Not Otherwise Specified.

2.1.1.1 Autistic Disorder

Autistic Disorder is categorized under the term of Pervasive Developmental Disorders (DSM-IV-TR; American Psychiatric Association, 2000). The fundamental diagnostic features of Autistic Disorder, which can be seen in Table 1, are described as consisting of significantly impaired development in reciprocal interaction and communication skills and significantly restricted repertoire of activity and interests with repetitive and stereotyped manner. Clinical appearance of the disorder shows great variations depending on the developmental level and chronological age.

There are three main diagnostic criteria in this category, which are, social impairments, communication impairments, and restricted behaviors, activities, or interests. The first criterion includes the impairments in reciprocal social interaction. Individuals with this disorder may be noticeable in the use of

Table 1. Diagnostic Criteria for Autistic Disorder (DSM-IV-TR)

A. A total of six (or more) items from (1), (2), and (3), with at least two from (1), and one each from (2) and (3):

(1) qualitative impairment in social interaction, as manifested by at least two of the following:
   (a) marked impairment in the use of multiple nonverbal behaviors such as eye-to-eye gaze, facial expression, body postures, and gestures to regulate social interaction
   (b) failure to develop peer relations appropriate to developmental level
   (c) a lack of spontaneous seeking to share enjoyment, interest, or achievements with other people (e.g., by a lack of showing, bringing, or pointing out objects of interest)
   (d) lack of social or emotional reciprocity

(2) qualitative impairments in communication as manifested by at least one of the following:
   (a) delay in, or total lack of, the development of spoken language (not accompanied by an attempt to compensate through alternative modes of communication such as gesture or mime)
   (b) in individuals with adequate speech, marked impairment in the ability to initiate or sustain a conversation with others
   (c) stereotyped and repetitive use of language or idiosyncratic language
   (d) lack of varied, spontaneous make-believe play or social imitative play appropriate to developmental level

(3) restricted repetitive and stereotyped patterns of behavior, interests, and activities, as manifested by at least one of the following:
   (a) encompassing preoccupation with one or more stereotyped and restricted patterns of interest that is abnormal either in intensity or focus
   (b) apparently inflexible adherence to specific, nonfunctional routines or rituals
   (c) stereotyped and repetitive motor mannerisms (e.g., hand or finger flapping or twisting, or complex whole-body movements)
   (d) persistent preoccupation with parts of objects

B. Delays or abnormal functioning in at least one of the following areas, with onset prior to age 3 years: (1) social interaction, (2) language as used in social communication, or (3) symbolic or imaginative play.

C. The disturbance is not better accounted for by Rett's Disorder or Childhood Disintegrative Disorder.

Source: Diagnostic and Statistical Manual of Mental Disorders Fourth Edition (pp. 70-75), American Psychiatric Association, 2000.

various nonverbal behaviors to regulate reciprocal and appropriate social interaction and communication, such as establishing eye contact, presence of extraordinary facial expressions, body postures, and gestures (Table 1 – Criterion A1a). As another sign of this criterion, establishing appropriate peer relationships may show some marked deficiencies for these individuals (Criterion A1b). While younger individuals may have little or no interest in developing relationship with peers, older ones may have great difficulties in understanding the conventions of social interaction even as they present some sort of interest in establishing friendship. Lack of spontaneous seeking to share enjoyment, interests, or achievements with other people such as not showing or pointing out objects which they find interesting is another important sign of this criterion (Criterion A1c). At last, social and emotional reciprocity in social interactions with other people may be markedly impaired (Criterion A1d). These individuals usually are not actively participating in simple social play or games; they either prefer to engage in solitary activities or prefer to include others in their activities only as tools.

The second criterion includes the qualitative impairments which affect both verbal and nonverbal communication skills. The language development may be delayed or totally absent (Criterion A2a). Even in individuals who have language development, communication with others may be limited in terms of having marked impairment in initiating or sustaining a conversation (Criterion A2b), using stereotyped, repetitive, or idiosyncratic language (Criterion A2c).

Moreover, pretend or social imitative play may be absent appropriate to developmental level (Criterion A2d). In general, for the individuals with this diagnosis while the speech may develop, abnormality in the pitch, intonation, rate, rhythm, or stress may be present. The manner of stereotyped, repetitive or idiosyncratic language use is usually followed by immature grammatical structures. Moreover, other than delay in speech development, language comprehension also shows delay in a great deal for these individuals. They may have difficulty in understanding simple questions and directions. Integration of verbal and nonverbal communication tools as a pragmatic and social use of language is also usually impaired (i.e., inability to integrate words with gestures and mimes, inability to understand humor or nonverbal aspects of speech).

As primary indicators of the last criteria, individuals with Autistic Disorder have patterns of restricted, repetitive, and stereotyped behavior, interests, and activities. These individuals are usually preoccupied with one or more stereotyped and restricted interests that are unusual both in intensity or focus (Criterion A3a) and with nonfunctional routines or rituals (Criterion A3b). For instance, individuals with Autistic Disorder may be interested in some activities in markedly restricted ways. They may have one narrow interest and may be solely preoccupied with it (e.g., dates, phone numbers, etc.). They may insist on playing with some objects in the exact same way over and over again. Consistently, they may show strong resistance to minor changes in their everyday routine. An insignificant change in a living room

environment or change in everyday school route may result in enormous catastrophic reaction of the child. Additionally, stereotyped and repetitive motor mannerisms may be present involving hands such as clapping, finger flicking or involving the whole body such as rocking, swaying (Criterion A3c). Atypical body posture like walking on tiptoe is also very common for these individuals. They usually show a persistent preoccupation with parts of objects (Criterion A3d). They usually seem to have a tendency to focus on selective parts of objects in their play rather than using objects as a whole or as using them according to objects' intended purpose.

For an individual to be diagnosed as having Autistic Disorder, s/he needs to show a total of six (or more) signs from these three criteria. At least two of these signs should be from the first criterion, one of them should be from the second, and one of them should be from the third criterion. The disturbance in below mentioned areas must be apparent prior to age 3 years (Criterion B). While in most of the cases, early signs of abnormal development are manifested, in approximately 20% of cases relatively normal development are reported for 1 or 2 years. In such cases, reported normal development subsequently declines with time.

2.1.2 Prevalence

DSM-IV-TR reported the median rate of Autistic Disorder as five cases per ten thousand individuals according to the epidemiological studies (American Psychiatric Association, 2000). This rate shows a variance between

two to twenty cases per ten thousand individuals. The first epidemiological study of autism, which pioneered epidemiological studies in psychiatry, was conducted by Lotter (1966). In this study, Lotter first screened the number of seventy eight thousand children between the ages of eight and ten and was able to identify a hundred and thirty five suspected cases among these children. After assessing these selected cases individually, he came up with the thirty five children according to criteria of being socially detached and engaging with the certain rituals and routines. He concluded with a prevalence rate of 4.5 per ten thousand of the children population aged eight to ten with a ratio of 2.6 boys to 1 girl. Although this first study was very important as the starting point of epidemiological surveys in autism research, its findings have been weakened with the increase of consequent prevalence studies. After Lotter's first attempt on prevalence studies of autism, similar epidemiological studies have been conducted in many countries (e.g., Brask, 1972; Fombonne, du Mazaubrun, Cans, & Grandjean, 1997; Gillberg, Steffenburg, & Schaumann, 1991; Kielinen, Linna, & Moilanen, 2000; Magnusson, & Saemundsen, 2001; Tanoue, Oda, Asano, & Kawashima, 1988; Wing, Yeates, Brierly, & Gould, 1976). All of these studies were based on a categorical-diagnostic approach and they all have used the common definition of autism, which includes severe impairments in social interactions, in communication and language, significant deviations in play activities, and presence of unusual sets of behavior (Fombonne, 2003). Whilst accumulating the epidemiological studies in following decades, the prevalence rates of autism appeared to increase. The

question of whether the prevalence is rising has become an important research area for epidemiology researchers. Wing and Potter (2002) were also interested in this question and they reviewed thirty nine population studies carried out in different countries in order to shed light on the ongoing debate. Wing and Potter stated that the prevalence studies carried out in the late 1990s indicated rises in incidence of autism in pre-school aged children. According to studies they investigated, a prevalence rate of sixty per ten thousand was reported for autism which shows a vast amount of increase from the estimate of 4.5 per ten thousand found in Lotter's study. Wing and Potter suggested that reported increment in incidence and prevalence was mainly due to changes in diagnostic criteria and greater awareness among parents and professionals (Wing & Potter, 2002).

Prevalence rates of autism spectrum disorders show inconsistency in terms of gender. Considering the male to female ratio, rates for males are four to five times higher than for females. However, the disorder is most likely to coexist with mental retardation for females (DSM-IV-TR; American Psychiatric Association, 2000). While this difference in gender is considered as a clue to the biological origin of autism, the fundamental reasons of it still remain unknown. There is one early longitudinal study which aimed to address gender differences in autism (Lord et al., 1982) which included 384 males and 91 females aged between three and eight years of age. All of these children were investigated throughout their development during five years by psychological tests and interviews. Whereas females with autism spectrum

disorders, participated in this study, were found to be more severely impaired than males in ability tests aimed to assess IQ levels, no gender differences were found in terms of play and social interaction dimensions. Volkmar, Szatmari, and Sparrow (1993) conducted a more recent study on differences in gender ratio associated with ability level. They evaluated 488 individuals (199 with autism, 74 with pervasive developmental disorders not otherwise specified / PDD-NOS and 215 with typical development) on various intelligence and behavioral tests. Findings of this study were consistent with the findings of Lord et al. (1982). Volkmar et al. (1993) also concluded that IQ levels of males and females with autism were found to be the main difference in terms of gender.

2.2 Associates of Family Functioning Processes among Parenting Stress, Coping Strategies, and Social Support Variables

The following section will investigate firstly the family functioning processes and then emphasize the hypothesized associates of these processes within three main sections, namely, parenting stress, coping strategies and social support.

2.2.1 Family Functioning Processes

Family functioning processes is presented in this section through the introduction of family systems theory followed by the Circumplex Model of Marital and Family Systems. Lastly, related literature about family functioning processes of parents of children with autism was also provided.

2.2.1.1 Family systems theory

A family is described as a natural social system extending over at least three generations. It is not just composed of a collection of human beings sharing the same specific physical and psychological space. This social system unit has its own assigned roles for each member, has an organized power structure, develops different forms of communication specific to its nature, and has structured problem solving ways that can be used effectively in dealing with various tasks. Relationships among the members of a family are mainly based on a shared history. This history is composed of common perceptions and assumptions about the world and a sense of common objectives that a family tries to achieve by arranging itself as a functioning group. Each family has its own way of functioning and all families try to function toward promoting positive relationships among members and try to find ways to cope with life course changes as well as unexpected crises. It has been contended that a family's response to an unexpected crisis situation can be better understood by evaluating the family's current phase of development. The family system is usually characterized by two important concepts: continuity and change. Changes that the families face are either gradual and continuous, or may happen in a sudden and disruptive manner. Sudden crises create inevitable changes in the relationships among family members (Goldenberg & Goldenberg, 1991).

The family systems theory hypothesized that within a particular social context or ecology, the family is considered as an open and interactive system

operating in accordance with a generalized set of principles (Minuchin, 1988). The theory is based on basic concepts of family systems, human ecology, and family development. Systems, ecology, and development concepts conceptualize the family as an organic system which always strives to maintain its balance against any external pressure. Family systems theory takes the family into account as a whole unit rather than emphasizing individuals independently from the family unit. Therefore, according to family systems theory, everything that happens to any family member has an inevitable impact on other members in the family.

According to Berg-Cross (1988), there are some innate elements of family dynamics which constitute the operation of a family unit. These elements can be listed as wholeness, interdependence of parts, balance between openness and resistance to change, feedback mechanism within the system, and interconnection of multiple levels within the system. All of these concepts constitute the basics of family dynamics. They not only define what a family is, but also describe family functioning processing. The family unit as a whole is not only more than sum of its parts but also is composed of interconnected parts of individual members. If one part of the system changes, other parts are affected and they also changes accordingly. Balanced flexibility and cohesion is essential for each family unit in order to function effectively. Moreover, communication is an extremely essential component of the system so that regular feedback could be maintained among members. Finally, there are different systems in the society other than family system and mutual influence

appears among them. That's why, functioning of these systems are affected by the relationships among multiple levels. Overall, depending on the unique familial characteristics, all of these family dynamics may render a family either effective or dysfunctional (Berg-Cross, 1988). Consequently, it is important to investigate what qualities make the families stronger in order to function effectively. For this purpose, Stinnett (1979) proposed a family strengths framework which focuses on family strengths. According to Stinnett's framework, the concepts of commitment, positive communication, spiritual orientation, appreciation and affection, and ability to cope with stress make families stronger in response to situational and developmental changes. Commitment can be defined as a latent mutual agreement among family members to care for and promote each other's happiness, dependability, and faithfulness to the family. Positive communication is another crucial indicator of strong families. The term requires the willingness to share feelings and concerns as openly and honestly as possible without blaming each other. It also requires finding the middle ground on mutual disagreements. Spiritual orientation includes to compromise on a shared ethical values and beliefs which promote a common sense of hope, faith, and compassion for a family to function effectively. Appreciation and affection are also important concepts which can be seen as a consequence of a family system functionally committed to mutual caring, developing friendship, promoting individuality, encouragement, and shared humor. The willingness to create shared times together (especially sharing more quality time in order to enjoy being together

and to create opportunities for problem solving) is another important indicator of family strength. Finally, a strong family system should have the ability to cope with stress especially in difficult times. The whole family should come together, stay firm and confront difficulties together. When families that have the ability to effectively cope with stress face a stressful situation, they encounter crises as challenges and opportunities. Openness to change, flexibility, and resilience are among the characteristics of such families that make them stronger against crisis situations.

Families are viewed along a continuum from healthy to unhealthy. Health of the family is generally determined by evaluations of the family systems functioning. How effectively the family system functions in assisting the family members individually and as a whole is an important indicator of family health. The term health does not mean the absence of pathology, it is rather an interactive process related to positive relationships and their outcomes (Wilcoxon, 1985). Healthy families have a number of common characteristics. According to Becvar and Becvar (1982), healthy families have a legitimate source of autonomy and have a stable and established rule system. Moreover they have stable and consistent shares of nurturing behavior and childrearing practices. Finally, they need to have sufficient flexibility and adaptability to accommodate normal developmental challenges and unexpected crises. As the term healthy family functioning is often viewed as hypothetical and vague among family theorists, Krysan, Moore, and Zill (1990) attempted to identify a strong and healthy family with the following features: adaptability (including

ability to deal with crises in a positive and constructive manner), commitment (including members individually and the family as a group), clear, open, and effective communication patterns, supportive family environment both by providing a sense of belongingness and by encouraging and supporting individual development of its members, expressing appreciation for each other, spiritual orientation, social connectedness in providing external sources available for adapting and coping, clearly defined roles (not rigid but flexible), and shared time together.

2.2.1.2 The Circumplex Model of Marital and Family Systems

The Circumplex Model of Marital and Family Systems was developed by Olson et al. (1989a) in order to create a tangible connection among research, theory, and practice. The historical roots, basic concepts, and primary dimensions of the Circumplex Model are derived from systems theory. This model is primarily focused on the relational system and integrates three dimensions, cohesion, flexibility, and communication which have been considered relevant in a variety of family theory models (e.g., Beavers & Hampson, 1990; Benjamin, 1977; Epstein & Bishop, 1993; Gottman, 1994; Kantor & Lehr, 1975; Leary, 1975; Leff & Vaughn, 1985; Parsons & Bales, 1955; Reiss, 1981).

In the Circumplex Model, family cohesion is defined as emotional connection and togetherness that family members exhibit towards each other. Emotional bonding, boundaries, coalitions, time, space, friends, decision

making, interests, and recreation are the variables that are used to measure the family cohesion dimension. How family systems find a balance between togetherness and separateness is the primary focus of cohesion. Cohesion is considered on a continuum. Five levels of cohesion is conceptualized which range from disengaged/disconnected (extremely low) to somewhat connected (moderately low) to connected (moderate) to very connected (moderate to high) and to enmeshed/overly connected (extremely high). The intermediate levels of this continuum, somewhat connected, connected, and very connected, constitute three balanced levels of cohesion and are generally considered as indicators of optimal family functioning. The levels disengaged and enmeshed, termed as unbalanced levels of cohesion and considered as indicators of problematic family functioning (Olson & Gorall, 2003; Gorall et al., 2004). Families, who function within the balanced levels of the cohesion dimension, are able to find equilibrium between togetherness and separateness. While they have an optimum connection to their family system, they are also able to exist as individual beings. In this way, balanced family systems have a tendency to be more functional across the life cycles. On the other hand, a disengaged relationship, an extremely low level of cohesion, generally has excessive amounts of separateness. In families with this type of cohesion, the members are usually slightly connected with each other and a great deal of separateness and independence is one of the most dominant characteristics of the members. Members usually are on their own, prefer to behave separately, and have predominantly separate times and interests. This life style makes them unable

to respond to each other for problem solving and support. Meanwhile, in the enmeshed relationship style, in-family relationship patterns are exactly the opposite of the disengaged relationship style. Emotional closeness and loyalty highly predominate within family members. Since individuals are very dependent on each other, private space and personal separateness become very limited. Energy of individual members is almost entirely focused on the internal family issues and external interests and friends are usually ignored. To conclude, extremely high and low levels of cohesion (enmeshed and disengaged, respectively) have a tendency to create dysfunction within the family environment in the long run. Although there is no best formulation of a balance in the cohesion dimension, it is a clear fact that functioning in both extremes for a long time will produce considerable problems within the family environment (Gorall & Olson, 1995; Gorall, 2002; Olson, 2000; Olson & Gorall, 2003; Tiesel, 1994).

Family flexibility is defined as the amount of change within the family unit in terms of family's leadership, role relationships, and relationship rules. Leadership, negotiation styles, role relationships, and relationship rules are among the primary concepts of flexibility. The basic focus of this dimension is the family system's ability to balance stability in response to change. As with cohesion, flexibility also has five levels ranging from rigid (extremely low) to somewhat flexible (low to moderate) to flexible (moderate) to very flexible (moderate to high) to chaotic (extremely high). While, the three central or balanced levels of flexibility (somewhat flexible, flexible, and very flexible)

are hypothesized to be indicators of healthy family functioning, the two extreme levels of flexibility (rigid and chaotic) are thought to be problematic for families in extended use (Olson & Gorall, 2003; Gorall et al., 2004). While system theory traditionally put emphasis on rigidity and stability within the family unit, more recently the importance of change and flexibility has also been emphasized among system theorists. The ability to change whenever needed and to have this potential as a system are now viewed among the most important characteristics of functional family units (Olson & Olson, 2000). Family systems that find a balance in the flexibility dimension are capable of managing both stability and change. It demonstrates democratic leadership patterns. Children are also included in negotiations and decision making processes. Roles and rules within the family system are open to change whenever needed in accordance with the developmental transitions of the system. However, unbalanced family systems tend to exhibit functions that are either too rigid (too much stability) or too chaotic (too much change) in response to the situations which require change. In a rigid relationship, leadership is usually attached to one specific person and all of the decisions are in the control of that specified person within the system. In parallel with this rigidity, negotiations are highly limited. Roles within the family are strictly defined and rules are not open to change at all. Conversely, in a chaotic relationship inconsistent or very limited leadership is available. Decisions are not well-criticized and roles within the family system are vague. As with cohesion, extremely high (chaotic) or low levels (rigid) of flexibility have a

tendency to produce some problems for the family system in the long run. While systems with moderate levels of flexibility may easily operate between change and stability in a balanced way, families that function in either extreme levels of the model (chaotic or rigid) for an extended period of time are more likely to experience serious problems (Gorall & Olson, 1995; Gorall, 2002; Olson, 2000; Olson & Gorall, 2003; Tiesel, 1994).

Communication is defined as the third dimension of the Circumplex Model and is basically considered as the crucial facilitator factor. Through using positive communication skills, families may enhance and alter their levels of cohesion and flexibility. The main hypothesis of this aspect of the model is that whereas cohesion and flexibility dimensions have a curvilinear relationship with the family functioning, the communication dimension has a positive linear relationship with the family functioning. According to the Circumplex Model, family functioning is not expected to increase with the continuous escalation of cohesion and flexibility levels, on the contrary highest levels of cohesion and flexibility are evaluated as an important signal of dysfunctionality in family system. On the other hand, the relationship between communication and family functioning does not have such pattern. Instead higher levels of communication within the family environment are considered as an indication of better functioning families (Olson & Gorall, 2003; Gorall et al., 2004).

2.2.1.3 Family Functioning Processes in Families of Children with Autism Spectrum Disorders

Family environment, essentially emotional life qualities of families, plays a primary role in the eventuation of children's development (Bronfenbrenner, 1986; Gottman, Katz, & Hooven, 1996). Closeness in family interaction patterns is contended to be the key element of child development (Guralnick, 1997). Emotional interaction within family members and the quality of parent-child interaction are considered among the important familial concepts in order to explain families' reactions in response to crises and ongoing developmental stressors and variabilities in their adaptability levels (Krauss & Jacobs, 1990). Family cohesion, as an important aspect of familial emotional life and indicator of family health, has not been studied in families of a child with developmental disorder as much as in families of a child with psychiatric disorders or other childhood behavior problems. Mink and colleagues (e.g., Mink, Blecher, & Nihira, 1988; Mink, Nihira, & Meyers, 1983) have conducted one of the most comprehensive studies on the relationship between cohesion and the functioning of children with disabilities. Since cohesion within family life is one of the primary indicators of family functioning, it is also considered as a protective factor especially in terms of child outcomes (National Research Council and Institute of Medicine, 2000). Parallel with this statement, Mink and colleagues (1983; 1988) also concluded that high levels of cohesion and functional interactions were among the

primary indicators of higher socioemotional functioning for the families of children with mental retardation.

While there has been little attention to social impact studies on having a child with autism spectrum disorders, growing body of evidence suggests that chronic illness and disability have a negative impact on family functioning processes (Williams & Bond, 2002). On the other hand, while the subject of parental stress has been largely studied in autism literature, little research has been conducted on family functioning. Sharpley et al. (1997) found three important factors which create stress on parents of children with autism spectrum disorders: the permanency of the condition, difficulty of other family members' and society's acceptance of child's behavior problems, and the lack of perceived social support from health care and other social services. Rodrigue et al. (1990) conducted a study in order to examine and compare the psychosocial adjustment of mothers of children with autism, Down syndrome, and typical development. In this study, 20 mothers from each group were included and psychosocial functioning of mothers was assessed from an individual, dyadic, familial, and community level. They concluded that mothers of children with autism differed from mothers of children both with Down syndrome and with typical development in terms of several individual characteristics. According to the results of this study, mothers of children with autism reported higher family cohesion and lower family flexibility than mothers of children with Down syndrome and with typical development. Rodrigue et al. (1990) argued this finding as higher emotional bond among

family members and lower flexibility in response to stress situations perceived by mothers of children with autism. Significant difference appeared among each group in terms of cohesion and flexibility levels, on the other hand, since the reports of all mothers fell within the range of healthy family functioning, these findings should be interpreted carefully. According to Rodrigue et al. (1990), their findings indicated that having a child with developmental disability had a negative effect on family functioning such as disrupting family routines, creating financial difficulties, and placing greater demands on mothers. Additionally, Higgins, Bailey, and Pearce (2005) conducted a study to investigate stress levels of parents of children with autism and their coping strategies specifically focusing on the perceived experiences of family members, the behavioral characteristics of children with ASD, and the impacts of having a child with autism on families. The study of Higgins et al. (2005) mainly hypothesized that primary caregivers would report low marital happiness, family adaptability, cohesion, and self-esteem, and coping style would be a predictor for marital happiness, family adaptability, cohesion, and self-esteem. While findings of this study showed that while primary caregivers reported low marital happiness, adaptability, and cohesion, no evidence was found for low self-esteem. On the other hand, the second hypothesis of this study was not supported. Coping strategies was not found to be related to marital or familial adjustment. According to Higgins et al. (2005), this unexpected finding may be a result of either inappropriate measure of coping or sampling selection bias. In other words, the measure selected for assessing

coping strategies may not be appropriate for mothers of children with autism or the sample of the study may be among the mothers who were already coping well. Moreover, Lightsey and Sweeney (2008) also studied family satisfaction for mothers of children with disabilities and tested potential predictors of family satisfaction, such as generalized self-efficacy, emotion-oriented coping style, family cohesion, and meaning of life above the variance accounted for by perceived stress. The researchers hypothesized that while maternal generalized self-efficacy, family cohesion, and meaning of life would positively be associated with higher satisfaction, emotion-oriented coping style would be negatively associated with family satisfaction. Additionally, they hypothesized that meaning of life would mediate the relationship between family cohesion and satisfaction. Consistent with the hypotheses, the study showed that stress, emotion-focused coping style, meaning of life, and family cohesion indeed were significant predictors of family satisfaction. Mothers who reported lower stress, less emotion-focused coping style, who had higher meaning of life and higher cohesion experienced higher family satisfaction. On the other hand, generalized self-efficacy was not found to be associated with the family satisfaction.

2.2.2 Parenting Stress

Family stress is defined as pressure or tension in the family system. According to Boss (2002), whenever change creates disturbances and unwanted pressures, it is called stress. Change is the main element of stress in

family lives. How change affects the family solely depends on the family's perception of the situation along with their coping ability (McKenry & Price, 2005). Family stress is considered as both inevitable and normal within the continuum of psychological development of families over the life transitions and events. It has even desirable effects on human development and therefore on families since maturation comes afterward. Families face many different sources of stress over time and while some of these are associated with positive events, some others are associated with negative life events. In reality, any family life free from stress is a myth (Boss, 2002). Carter and McGoldrick (1988) have categorized family stressors into vertical stressors and horizontal stressors. Vertical stressors have historical backgrounds and are inherited from previous generations. These stressors are related to family patterns, myths, secrets, and legacies. On the other hand, horizontal stressors are those associated with the present. While some of these are developmental and expected in their nature (e.g., life cycle transitions), some others happen suddenly and are therefore unexpected (e.g., traffic accidents) stressors (Carter & McGoldrick, 1988).

While stress theories focus mostly on the individual, the main focus of the family stress theory is the whole family as a system. In terms of the family system, all of the family members together create a composite of shared memories, successes, failures, and desires along with the accumulation of particular relationships (Boss, 2002). Systems theorists do not only focus on the family unit as a whole but also the individuals within a family in order to

understand the family's responses to stress. Family theorists typically conceptualize the families under stress from a social systems perspective. Families are artifacts of both subsystems (i.e., individuals, dyads) and suprasystems (i.e., community, culture). The social systems approach allows seeing the family and the individual within the suprasystem from a wider perspective. According to social systems theory, the family is embedded in the external environment, called the ecosystem. Therefore, they cannot be evaluated apart from this larger social context. This external environment includes historical, cultural, economic, genetic, and developmental influences of the whole community (Boss, 2002).

A social systems model can be traced back to Hill's (1970) classic research on war-induced separation and reunion. Hill formulated the ABC-X model of family stress in his research. While this model has been expanded through other studies and has undergone several transformations (McCubbin & Patterson, 1982; Boss, 1988, 2002; Burr, Klein, & Associates, 1994), it still remains as the basis for the analysis of family stress and coping (Boss, 2002). Briefly, in this theory the interaction between the provoking or stressor event (A), the family's available resources (B), and the family's perception of the stressful event (C) reflect the families' ability to cope with the stressor events or crisis situation (X). Taken as a whole, stress or crisis is not inherited from the event itself, they are rather considered as dysfunctional responses of the family to the stressor (Boss, 1988, 2002). When the family system has effective and appropriate sources, it is less likely to experience stressful situations as

problematic. Family cohesion and adaptability are among the most studied internal attributions of the family unit. Families who find balance between these two dimensions, namely cohesion and adaptability, are likely to function relatively well against stressor events and situations (Olson, Russell, & Sprenkle, 1979, 1980, 1983, 1989b).

From societal framework, childrearing is considered as goal-oriented action of individual beings. This goal may be set unconsciously, however as an hidden rule for the life as a community all individuals strive to socialize. And childrearing in this context emerges as a mean of socialization process. Every culture has its own value system, therefore, what is culturally expected and valued changes across cultures (Kağıtçıbaşı, 1996a). However, since parenting involves challenges and hassles along with satisfactions and fulfillments, all parents experience stress while raising a child and the term of parental stress is accepted as a universal experience both for mothers and fathers (Peterson & Hennon, 2005). According to the family stress theory, stress or crisis is not only the result of the event itself, but also a consequence of the meaning families attach to the event and families' available resources for coping. Since all family members and systems are subject to developmental change related to transitions in family life and family systemic changes, stress is viewed as an inevitable consequence of everyday life (Boss, 1992). From parental perspective, stress is defined as an unpleasant emotional reaction related to child-care and child-socialization activities (Crnic & Low, 2002), from systemic perspective, it is defined as a pressure within a relationship system in

response to change (Boss, 1992). There are three common categories of stressors that parents and families face with: normative stressors, non-normative stressors, and chronic stressors. Normative stressors are events that are either related to everyday life or developmental transitions during the family life course and these stressors are known as expected stressors (McKenry & Price, 2005). Daily hassles are considered as a part of everyday life and include routine care-giving activities, demands and these activities sometimes may be frustrating and create substantial pressure on parents. Crnic and Greenberg (1990) conducted a longitudinal study to assess minor parenting stresses within the parent-child context. The purpose of their study was to assess the frequency and intensity of daily hassles related to parenting activities and to investigate the relationships of these hassles with parenting, family status, and parent-child interactions. In this study, 74 mothers and their typically developing child pairs participated and mothers were evaluated on measures of daily hassles, satisfaction with parenting and life, life stress and family status for which the mother-child pairs were observed both in free play and structured situations. Crnic and Greenberg (1990) found that minor parenting hassles emerged as important sources of stress not only in general life challenges but also within the specific context of the parent-child interaction. While some hassles happen infrequently, some others occur more repeatedly and the cumulative effect of daily hassles may create significant amounts of stress for parents (Sepa, Frodi, & Ludvigsson, 2004; Crnic & Low, 2002). Apart from daily hassles, developmental transitions appear to be another

primary source of normative stress. Similar to daily hassles, transitions related to developing characteristics of the child create change in the family environment and when these stressors exceed certain limits for the family, they may become perceived as disruptive changes to create psychological distress. Especially transition to adolescence for children, from being young members of the family unit to becoming developing teenagers, is viewed as a key developmental transition period that has the potential to create distress for parents (Peterson & Hennon, 2005). Different from normative stressors, non-normative stressors are unexpected and unpredictable events that have significant impact on everyday patterns of parent-child relationships. These stressor events are usually sudden and unique occurrences that are not likely to be repeated. Since all of non-normative stressors are unexpected, they have a robust potential to produce significant psychological distress in the family equilibrium and within the family relationships (McKenry & Price, 2000). Off-schedule developments and initial awareness or diagnosis are among the most common non-normative stressors. When some developmental transition events in the family environment happen at unanticipated times, namely off-time or off-schedule developments, they can easily become disruptive stress sources for the families. For instance, the death of a parent for a school-aged child or the pregnancy of a teenage girl are classified under this category because of the off-time natures of the events. Since these events occur in an unpredictable manner, they create a substantial amount of distress in the functioning of the family system and require reorganization in the family balance (Carter &

McGoldrick, 1999; Peterson & Rollins, 1987). Furthermore, initial awareness or diagnosis of abnormal child characteristics is viewed as another source of non-normative stressors. They also result from sudden and unexpected occurrences involving the initial awareness or diagnosis of childhood abnormalities, such as delinquency, conduct disorders, attention-deficit behavior, autism, or birth defects (Ambert, 1997; Dunn, Burbine, Bowers, & Tantleff-Dunn, 2001; Rimmerman & Duvdevani, 1996). When the impact of this second source of non-normative stressors is not temporary (especially for the situations including initial diagnosis of a child), parents become to get used to the situation and to get adapted to the challenges and the stressor event has a potential to be gradually converted into chronic stressors in more moderate nature accordingly (Peterson & Hennon, 2005). When families face unexpected events such as confronting an initial awareness or diagnosis of their child, they slowly become accustomed to this new situation. Chronic stressors are in this context defined as inevitable results of ongoing experience of non-normative stressors. The typical examples of chronic stressors for parents are having a child either with long-term illnesses or with persistent abnormal characteristics. Experiencing chronic stress for parents usually starts after the initial impact of the diagnosis has passed and as the long term challenges of the situation start to emerge as a source of chronic stressor. This concept is generally termed as the child effect and is used to refer to ongoing demands that result from long-term illnesses, physical discrepancies, or significant problem behavior patterns (Ambert, 1997; Peterson & Hann, 1999). When parents face child effect

problems, such as conduct disorders, attention-deficit hyperactivity disorders, or developmental disorders like autism, they have to deal with the long-term overwhelming demands on time, energy, and psychological well-being (Ambert, 1997; Podolski & Nigg, 2001; Hasting, 2002).

2.2.2.1 Parenting Stress in Families of Children with Autism Spectrum Disorders

The term of developmental disability is generally defined as a set of abilities and characteristics that deviate from normal developmental pattern. Since the deviations appear within developmental domains consisting cognitive, communication, social, and motor abilities, these disabilities are considered under the umbrella term of developmental (Odom, Horner, Snell, & Blacher, 2009). Despite, autism is classified under the term of developmental disabilities; there has been extensive amount of studies conducted on parenting stress variables including parents of children with developmental disabilities in general. The literature comparing parents of children with developmental disabilities and with typical development show that parents of children with developmental disabilities experience and report higher parenting stress than parents of children with typically developing children (Friedrich & Friedrich, 1981; Kazak & Marvin, 1984; Wilton & Renault, 1986). The reason for this finding has been continuously studied through researches on variables of parenting stress in families of a child with developmental delay. Baker, McIntyre, Blacher, Crnic, and Edelbrock (2002) and Baker, McIntyre, Blacher,

Crnic, Edelbrock, and Low (2003) conducted a series of studies for investigating the components of child related parental stress. For example, Baker et al. (2002) examined the range of problem behaviors exhibited by three-year-old children with and without developmental delays and the impact of child's problem behaviors on parents' stress level. They found that children with developmental delays presented higher problem behaviors than children without delays according to their parents' reports. Moreover parents of children with developmental delays expressed greater stress on family environment and also family finance sources. For parents of children with delays experienced child-related stress much more related to their child's behavior problems than intellectual delay. This finding supported the idea that parental stress was mainly based on the problem behaviors (Baker et al., 2002). Following this finding, Baker et al. (2003) extended the finding of the significant influence of problem behaviors on parental stress levels by investigating the continuity of child behavior problems and their relationship with parental stress and found that child behavior problems were stable over the periods of 3 and 3 years of age for the children with and without developmental delay. On the other hand, children with developmental delay have higher problem behaviors than their non-delayed peers. Consequently, it was found that as problem child behavior increases, parenting stress increases mutually. Hasting (2002) also conducted a study which focused on the relationship between behavior problems of children with developmental disabilities and stress experienced by parents of these children. In this study, he proposed a model of the relationship between child

behavior problems and parental stress. The key question of Hasting's model was to identify how and why children's behavior problems and parent behavioral patterns might be influenced by each other mutually. According to this model, child's behavior problems create stress for parents and reciprocally parents under stress develop certain behavior patterns which in turn maintain child's behavior problems. While there is considerable evidence for the negative effect of child behavior problems on parental stress, the hypothesis of the reciprocal effect of parental behavior patterns on child behavior problems has still not supported clearly. According to Hasting (2002), despite the presence of few empirical studies to support his proposed model, it is not rational to fully reject the reciprocal relationship between child's problem behaviors and parenting stress. In addition to studies exploring children's problem behaviors on parenting stress, it seems also important to investigate the less child-related variables of parental well-being. Baker, Blacher, and Olsson (2005) conducted a study as an extension of the findings of Baker et al.'s study (2002). They extended their measures of parental well-being to examine the relationship of developmental delays and behavior problems of the child to less child-focused indicators of parental well-being. According to this study, parents of developmentally delayed preschool children did not differ on the relationship-focused indicators of parental well-being (depression and marital adjustment). However, child behavior problems were still strongly found to be related to the less child-focused indicators of well-being: depression and marital adjustment. Parents of children with developmental

delay reported more depression symptoms and less marital adjustment when their child's problem behavior increased (Baker et al., 2005).

Although considerable amount of research has focused on parenting stress related to raising a child with developmental disability and indicated that these parents experience high levels of stress, to what degree this stress were related to family functioning variables is still not clear (Feldman, Leger, & Walton-Allen, 1997; Innocenti, Huh, & Boyce, 1992). Smith et al. (2001) conducted a study to consider relative effect of both family and child functioning variables on predicting parenting stress. Findings of this present study indicated that family functioning variables were associated with parenting stress more than with child related variables. Moreover, among family functioning variables, family resources predicted overall parenting stress better than perceived family support and stressful life events. Although the severity of child's disability had minimal impact on parenting stress, it had considerable impact on stress related to parent-child relationship. Additionally, social skills of the child were found to be negatively associated with parenting stress. When parents have children with higher social skills, they tend to report lower parenting stress.

Apart from other developmental disabilities, autism is considered as one of the most severe developmental disabilities that affects almost every aspect of development (Cohen & Volkmar, 1997; National Research Council and Institute of Medicine, 2001; Wetherby & Prizant, 2000). Existing research shows that parents of children with autism significantly report higher levels of

stress related to their children's social and communicative problems, problem behaviors, and levels of dependency. Since these problems are usually unique to the autism spectrum disorder diagnosis, the experienced negative impact on the families appears to be particularly severe (Bouma & Schweitzer, 1990; DeMeyer, 1979; Moes, 1995; Rodrigue et al., 1990). Kanner (1943), as the pioneer researcher of autism spectrum disorder, proposed strong findings which have clearly put strong emphasis on the biological explanations for the disorder. Despite his original input on biological causers, Kanner's final proposition of *"inborn autistic disturbances of affective contact"* (1943, pp. 250) has shifted following research orientations to certain characteristics of parents (being more intelligent, coming from higher socioeconomic status) and of parenting (emotional tendency to be distant and lacking warmth) (Bristol, McIlvane, & Alexander, 1998). However, no credible research has shown that autism could be associated with defective parenting (McAddoo & DeMeyer, 1977).

Over the past 30 years, family research in autism has shifted its focus toward identifying characteristics of children with autism spectrum disorder and their parents in order to explore different aspects of family functioning. This shift has yielded the development of research on family functioning and parenting stress. In order to highlight the components of parenting stress in families of children with autism, studies mainly have focused on child and family characteristics related to stress specific to families of children with autism (e.g., Benson, 2006; Dale, Jahoda, & Knott, 2006; Tobing & Glenwick,

2006) and comparing variables of families of children with autism to other families of children with different disabilities and with typical development (e.g., Baker-Ericzen, Brookman-Frazee, & Stahmer, 2005; Bouma & Schweitzer, 1990; Noh, Dumas, Wolf, & Fisman, 1989; Rodrigue et al., 1990; Sanders & Morgan, 1997).

Even though each type of disability is unique and each child has specific features, certain types of disabilities tend to demonstrate extreme variations in ability and behavior and therefore compound the challenges for the family members. Autism is considered among such types of developmental disabilities (Norton & Drew, 1994). The question of why parents of children with autism are experiencing greater stress than parents of children with other developmental disabilities and those of typically developing children has continuously been asked by researchers concentrated on the area of parenting stress. Despite an assumption of autism is evident in the first year of life, most families suspect something is not normal with their child usually during their child's second age. Delay in recognition may have several problems. It may arise from parents' limited knowledge about normal development in young children. Parental denial of developmental delay may then result in a delay in professional assessment. Health care professionals also may be insufficient in identifying the first symptoms. Considering all these independent factors' potential to delay recognition, parental stress is almost inevitable (Baron-Cohen & Bolton, 1993). De Giacomo and Fombonne (1998) conducted a study in order to evaluate the first symptoms from parents' perspective. According to

this study, abnormalities in verbal communication tools were among the most frequent symptoms which arouse parents' concern about the developmental delay. Moreover, presence of older siblings is shown to help parents recognize the abnormalities earlier, most probably through acquired prior knowledge of normal child development.

O'Brien (2007) attempted to investigate the parental reactions of families with children with autism in order to understand differences in parental reactions to the news that their child has autism spectrum disorder by the application of the ambiguous loss theory (Boss, 1999, 2006). The theory of ambiguous loss, developed by Boss (1999, 2006), is derived from family stress theory and proposes that the most severe stressors are considered as dramatic changes in which the outcome seems unpredictable and ambiguous. Boss and colleagues (Boss & Couden, 2002; Caron, Boss, & Mortimer, 1999) conducted series of studies examining families' response to chronic illness and proposed certain areas of ambiguity for the family unit: ambiguity in diagnosis, unpredictable long-term outcomes, inconsistent patterns in the course of illness, lack of clues of dysfunction from physical appearance, and potential fear of disturbance in emotional relationships in response to the illness. According to O'Brien (2007), all areas of ambiguity can be applied to the situation of parents of children with autism spectrum disorders. Application of this theory to the diagnosis of autism spectrum disorder suggested that many parents, when they were first introduced the diagnosis of autism for their child, would experience a sense of ambiguous loss. Since the child with autism does

not fall in the normal developmental range, parents should change and accommodate their expectations accordingly. Parents' ability to manage the ambiguity of their child's diagnosis and discrepancy from his/her normal development produce the experience of ambiguous loss. O'Brien (2007) conducted interviews with mothers of children with autism spectrum disorders in order to identify their feelings of ambiguous loss during and after the diagnosis period and applied series of measures in order to assess identity ambiguity, depression, and stress levels of the mothers. According to this study, it has been found a direct relevance between the theory and families' experiences. The finding of this study indicated that having a child with autism makes parents confused in response to the inherent ambiguity of autism. Inherent ambiguity, which was found to be related to limited knowledge of etiology, symptoms, treatment, and outcome, creates confused and negative emotions. Mothers who had difficulty to separate their identity from their child with autism were found to report higher stress and depression symptoms.

Other than stress factors related to difficulty in diagnosis of autism spectrum disorders, accumulating research focusing on reasons for heightened parenting stress specific to having a child with autism has agreed upon the common factors directly related to the child's disability (Hastings, 2002; Koegel, Schreibman, Loos, Dirlich-Wilheim, Dunlap, Robbins, & Plienis, 1992; Konstantareas & Homatidis, 1991). Children with autism spectrum disorder tend to show wide range of problem and socially deviant behaviors (American Psychiatric Association, 2000; Schreibman, Heyser, & Stahmer,

1999). Dealing with such severe deficits and behavioral problems on a daily basis makes parents and families live in a chronic source of stress situation (Domingue, Cutler, & McTarnaghan, 2000; Gray, 1998; Marcus, Kunce, & Schopler, 1997; Norton & Drew, 1994). Tomanik et al. (2004) examined the relationship between maternal stress and adaptive and maladaptive behaviors of children with autism. They found that mothers of children with autism reported greater stress associated with their child's maladaptive behaviors of being irritable, socially withdrawn, hyperactive, non-compliant, and lacking self-care and communication. On the other hand, Tomanik et al. (2004) also found that these children's stereotypical behavior and inappropriate speech were not related to maternal stress and speculate that these behaviors may not be stressing for mothers especially when the child is young. Since delays in language and self-stimulatory behavior become more noticeable by age, these behaviors may become more distressing as the child gets older.

It should also be noted that serious stressors usually do not exist in isolation. Experiencing stress in one area of life usually pervades to other areas of life, which is called stress proliferation (Aneschensel, Pearlin, Mullen, Zarit, & Whitlatch, 1995; Pearlin, Aneschensel, & LeBlanc, 1997). Benson (2006) investigated the relationship between child symptom severity, stress proliferation, and parent depression. According to Benson (2006), the effect of child symptom severity on parent depression may be mediated by stress proliferation. The findings of this study strongly suggested that raising a child with autism spectrum disorder can create psychological distress in parents.

Moreover, Benson (2006) found that while child symptom severity had a direct effect on parent depressive symptoms, some of its effects could be indirect by firstly increasing stress proliferation and in turn resulting in higher depression symptoms.

Having a child with autism spectrum disorder is not only a source of stress for primary caregivers, but also for the whole family system to the extend that raising a child with a chronic condition may very well be one of the most stressful experiences for any family system. When facing an unexpected change, all family units have an ongoing expectation to return to normal life and reach a new equilibrium accordingly. However, when they face a chronic illness, no such expectation can exist. All of the rules and roles of the family should be reshaped (Griffith & Griffith, 1987). Bouma and Schweitzer (1990) conducted a study in order to understand the associates of family burden related to the care of a child with chronic illness. In their study, they compared and investigated pattern differences of family stress for mothers of children within three groups: mothers of a child with cystic fibrosis (a chronic physical illness), autism (a chronic psychological disorder), and without a physical and psychological disorder. Their hypotheses were that the mothers of children with cystic fibrosis and autism would report markedly higher overall stress than mothers of typically developing children, but different patterns of stress would be observed among the mothers of a child with cystic fibrosis and autism and autism would produce higher stress for the families than cystic fibrosis. The findings of this study supported both of its hypotheses. Not only

mothers of cystic fibrosis and autism groups reported significantly higher stress than the control group, but the stress variables of two clinical groups differed significantly. Sanders and Morgan (1997) also focused on the measures of assessing stress of raising a child with disability as well as parents' perceptions of general family adjustment. They proposed that parents of children with autism would report higher stress and adjustment problems than parents of children with Down syndrome. They found that parents of children both with autism and Down syndrome reported higher parental stress than parents of typically developing children and, additionally, that parents of a child with autism reported more stress than those of a child with Down syndrome. This study indicates that differences between two clinical groups might result from severe problem behaviors exhibited by a child with autism. These problem behaviors most probably make parents of children with autism ineffective in using their limited free time and accordingly create higher stress for parents.

2.2.3 Coping

When an individual is faced with specific internal and/or external demands and appraised these demands as extremely challenging and exceeding his/her personal resources, he/she tries to stimulate and adjust cognitive and behavioral efforts in order to deal with them. These constantly changing efforts are called as coping (Folkman & Lazarus, 1984). Coping as a process has three main features: first, coping involves individual effort and planning; second, not all coping ways should produce positive outcomes; and third, coping as a

process takes place over time (Monat, Lazarus, & Reevy, 2007). Folkman and Lazarus (1984) defined two kinds of appraisals which are processed when an individual encounters with a potential stressor: primary and secondary appraisals. Primary appraisals are the very first cognitive reaction to any stimuli. They are perceived either by irrelevant, benign-positive, or stressful. While the stimulus is appraised as having no implication for the person's well-being, irrelevant appraisals are set in. On the other hand, if the implication of the encounter is interpreted as positive, benign-positive appraisals are set in. Finally, harm/loss, threat, and challenge account for stressful appraisals. The most severe life events activate in harm/loss. In this type, some sort of harm or loss has already happened, including an injury or illness, or loss of a significant other. Threat refers to the harm or loss that has not happened yet but is anticipated. Challenge, another stressful appraisal, is very similar to threat but it carries a potential of growth and gain instead of loss. Secondary appraisals are considered as the next step of primary appraisals. These appraisals include evaluation of the available coping resources and possible actions in response to the stimuli (Folkman & Lazarus, 1984). Two general coping strategies are defined by Folkman and Lazarus (1984): problem-focused and emotion-focused coping. Problem-focused coping strategies include efforts for focusing on the problem itself either by defining the problem situation or working out possible solutions. This type of coping approaches involves attempts to change the stressful situation itself. On the other hand, emotion-focused coping strategies focus on managing the emotional distress which the problem

situation creates. These types of coping forms include strategies as avoidance, minimization, distancing, selective attention, and positive comparisons. Emotion-focused type of coping focuses on managing the emotional impact of a stressful situation and alleviates the stress without attempting to change the actual setting of the relationship (Folkman & Lazarus, 1990; Monat et al., 2007).

2.2.3.1 Coping Strategies in Families of Children with Autism Spectrum Disorders

When the concept of having a child with disability is evaluated within the systems theory (Minuchin, 1988), the necessity arises to investigate the presence of a child with disability in accordance with the coping resources available in the family system and with the ecological context where the family system is placed. An Adaptational Model proposed by Crnic, Friedrich, and Greenberg (1983) integrated concepts from three different but highly penetrated research areas: stress, individual coping, and ecological systems. Having a child with disability saddles the family with a significant amount of ongoing stressors. The reaction of the family system to such a stressor involves activation of various coping resources both at the individual level and at the family level as a whole. Various ecological contexts where family members interact also play as mediator factors for available coping resources. It is clear that the concept of coping resources has significant utility for studies of familial adaptation in response to a disabled child. Previous research on stress

within family context has solely focused on individual family members and ignored ecological context where stress reactions take place. Crnic et al. (1983) proposed in their Adaptation Model that even though familial stress is moderated by coping resources, variations in ecological domains should also be taken into account in detail. Additionally, Norton and Drew (1994) also attempted to examine specific characteristics of children with autism which appeared primary source of stressor for the entire family unit. In their paper, Norton and Drew (1994) emphasized the importance of effective coping strategies arising essential for the maintenance of family unit.

As a whole, the concepts of stress, coping resources, and family ecology constitute a comprehensive model for the adaptation of families of children with disabilities. While familial adaptation can be understood by mediating factors of the available coping resources, these resources are also interpreted by the mediation effect of the various ecological systems in which the family interacts. In other words, family functioning is not simply families' response to a child with disability. Rather, the adaptational model of Crnic et al. (1983) considers familial adaptation process as a response to the situation which is both mediated by the coping resources and affected by the ecological contexts (Crnic et al., 1983).

Moreover, parental stress models have emphasized the role of appraisal processes and the resources that parents of children with disabilities have in order to cope with their child's problem behavior and consequently with parental stress (i.e., ABCX Model, Hill, 1970; Double ABCX Model,

McCubbin & Patterson, 1983). Empirical applications of family stress models suggest that the effects of child problem behaviors on parental stress are mediated by parental coping strategies. The conclusion can be made through these studies that more severe behavior problems may lead to less problem-focused or more emotion-focused coping styles by parents, in turn negatively impacting parental stress (Orr, Cameron, & Day, 1991; Quine & Pahl, 1991).

Sivberg (2002) also conducted a study that focused on entire family system of families of children with autism. The primary aim of this study was to explore relationships between types of family systems and parents' coping strategies. The study compared two groups of families, one with children with autism and one with typically developing children. It was hypothesized that families with higher levels of coping would report lower family system distress, but also that families with a child with autism would experience higher levels of strain on the family system than those with a typically developing child. Finally, coping styles for both groups of families were also expected differ. Sivberg (2002) found that families using higher levels of well-functioning coping styles had indeed lower difficulties as a family system. These well-functioning coping strategies were listed as: giving equal amount of attention to all children including both children with autism and normal developing children in the family; being cautious in terms of not expecting too much help from a normal developing child in caring for the sibling with autism; being careful not to see the child with autism as the only element for family's difficulties. Second crucial finding of this study indicated that families

of a child with autism experienced much higher levels of strain on the family system compared to those of a child with typical development. Finally, coping strategies of two groups were found to differ significantly. While families of children with autism tended to use more non-constructive coping styles such as distancing and escape, families in the control group tended to use more constructive coping strategies such as self control, social support, and problem solving.

2.2.4 Social Support

Research on stress and coping has indicated that social support is one of the most important and effective ways in response to cope with the stressful situations (e.g., Billings & Moos, 1981; Thoits, 1986, 1995). Social support is defined in general as the perception and sense of being loved, cared for, valued, part of a social network. In general, social support appears in three categories: informational, instrumental/tangible, and emotional support (Schaefer, Coyner, & Lazarus, 1982). Informational support refers to receiving help from someone for getting a better understanding of the stressful event, available resources, and possible coping strategies in order to deal with the situation. Instrumental/tangible support includes getting support from institutionalized units, such as, health care services, financial assistantships, or consulting agencies. Emotional support involves getting warmth and nurturance from others along with the sense of loved, valued, and cared for. Considerable amount of research have indicated that individuals who could get sufficient

support from family members, spouses, and friends show positive health outcomes than individuals who have lower social support connections (Berkman & Syme, 1979; Broadhead, Kaplan, James, Wagner, Schoenbach, Crimson, Heyden, Tibblin, & Gehlbach, 1983; Henderson, Bryne, Duncan-Jones, Adcock, Scott, & Steele, 1978; Kaplan, Cassel, & Gore, 1977; Leavy, 1983). Existing literature suggests two main models of beneficial effect of support process on psychological well-being: buffering and main-effect model. Although buffering model proposes that support buffers an individual from the potential negative effects of stressful situations and is related to psychological well-being for an individual under stress (e.g., Aneschensel, & Stone, 1982; Cohen & Hoberman, 1983; Cohen & McKay, 1984), main-effect model proposes that support has a beneficial effect independent from the occurrence of stressful events (e.g., Gore, 1985; Wheaton, 1982). Instead of discussing the correctness of each model, it is important to view each model as having important implications in terms of understanding the relationship between social support and health (Cohen, & Wills, 1985). Social support could not be thought independent from the social environment; instead it should be viewed as a resource available in the social environment. Despite its availability as a resource, to use and foster this resource depend on the person. From this point of view, social support is also evaluated as a coping mean in response to stressful encounters (Folkman & Lazarus, 1984).

2.2.4.1 Social Support in Families of Children with Autism Spectrum Disorders

Boyd (2002) conducted a review study which aimed to examine aspects of social support into two categories, namely precursors that lead mothers to seek out social support and the use of social support to alleviate stress. First, the characteristics of parents were investigated who are the users of social support and their children which lead patents to seek support. Then the stress of mothers due to lack of social support was analyzed. Thirdly, the positive effects of social support on maternal stress were evaluated. Finally, effects of social support on parenting issues were examined. Reviewed study of Boyd (2002) shows that both parent and child characteristics have significant role in parents' decision to seek social support. Among child related characteristics, cognitive limitations and problem behaviors are considered the most significant ones, because cognitive limitations are a potential sign of long term dependency and problem behaviors create challenges not only within the family unit but also publicly. Thus, the characteristics of the child with autism may also have an effect on the ability to cope with stress experienced by mothers (Norton & Drew, 1994). Both of these difficulties have also a potential to limit parents' social support sources. With regard to the mothers' characteristics that lead them to seek social support, Sharpley et al. (1997) also stated that one of the main reasons that lead mothers of children with autism to seek social support is the level of stress they experience as a result of rearing a child with autism. While there is a convincing body of literature that

documents how mothers of children with autism report high stress levels (Hasting, 2002; Tomanik et al., 2004; Koegel et al., 1992), there are also some studies that suggest that not all mothers of a child with autism experience clinically elevated stress scores. For example, Gill and Harris (1991) attempted to find out whether there are some innate characteristics of mothers that save them from experiencing heightened stress. They measured the effects of social support and hardiness on mothers' reactions to the stressful demands of raising a child with autism. They concluded that social support may not be the only factor to cope successfully with the parenting stress but its correlation with personality characteristics should also be taken into account. Considering the importance of mothers' and the child's characteristics on social support seeking, Broomley, Hare, Davison, and Emerson (2004) also examined the associations between levels of distress experienced by mothers of children with autism and child characteristics, socio-economic situation of mothers, and social support received by mothers. Results of this study indicated that high levels of psychological distress experienced by mothers of children with autism were significantly related to low levels of social support and raising a child with marked challenging behavior pattern.

2.3 Related Studies Conducted in Turkish Culture

Empirical studies focusing on parents of children with disabilities (including mental retardation, autism, and hearing disabilities) have begun to arise during 80's and thus family studies on this area are considered recently

growing field of interest in Turkey (Sucuoğlu, 1997). This section aims to present the samples of the related studies on families of children with disabilities, developmental disabilities, and autism conducted in the Turkish culture.

In order to investigate the sources of stress for parents of children with disabilities in terms of possible causal attributions, Akkök, Aşkar, and Karancı (1992) conducted a study with the sample of 82 mothers and 64 fathers of children with disabilities. While 27 of the children had a diagnosis of autism, the rest of the children had mild mental retardation. According to this study, fatalistic attribution was found to be strongly related to stress levels of parents of children with disabilities. Moreover, external attribution was also associated with the stress. Finally the severity of the disability was another factor related to stress levels of parents. This study revealed that having a child with autism rather than a child with mild mental retardation was related to the experience of higher stress.

A recent study conducted by Bilal and Dağ (2005) aimed to investigate the relationship between stress levels, coping strategies, and locus of control beliefs of mothers of children with mild mental retardation and compare them with mothers of children with typical development in terms of related variables. The study included 83 mothers of children with mild mental retardation and 91 mothers of children with typical development. This study showed that mothers of children with mild mental retardation experienced more cognitive-affective stress symptoms than mothers of children with typical

development. However, two groups of mothers did not differ in terms of overall stress symptoms. Moreover, mothers of children with mild mental retardation and mothers in control group did not also differ on coping and locus of control measures. Bilal and Dağ (2005) explained this finding might be based on the severity of child's disability. Since children included in this study were mildly disabled, mothers of children with mild mental retardation and mothers in control group did not reveal any expected difference.

Herken, Turan, Şenol, and Karaca (2000) compared parents of children with Down syndrome and parents of children with typical development in terms of depression levels and depression coping strategies. They included 42 parents of children with Down syndrome and 42 parents of children with typical development in their study. According to this study, parents of children with Down syndrome were found to have significantly higher depression scores than parents in control group. In addition, mothers of children with Down syndrome were found to have significantly higher depression scores than fathers of children with Down syndrome and also higher than mothers of children in control group. Herken et al. thought that parents of children with Down syndrome were found to have higher depressive symptoms than parents in control group because having a child with Down syndrome may have an effect on the stress level of the whole family unit.

Duygun and Sezgin (2003) conducted a study to compare mothers with mentally handicapped children and mothers with typically developing children in terms of burnout, stress, perceived social support levels, and coping

strategies. They also aimed to investigate the predictors of burnout levels of two groups of mothers among the variables of stress, perceived social support, and coping strategies. Mothers of 118 mentally handicapped children and 121 typically developing children were participated in this study. The findings of this study revealed that the burnout levels of mothers of children with mental retardation were significantly higher than mothers in control group. Mothers of children with mental retardation may experience burnout related to some negative feelings, such as, failure, denial, and helplessness. Finally, Duygun and Sezgin (2003) concluded that other than negative feelings, being unaware of the importance of social support as a coping way and unaware of social support sources may also be related to maternal burnout.

Elçi (2004) also conducted a study on parents of children with autism and tried to examine the predictors of posttraumatic growth and parental burnout among the variables of perceived social support, coping strategies, and stress. Another aim of this study was to determine the gender differences in the frequency and type of coping strategies and burnout levels. According to this study, problem solving/optimistic coping strategy was found as the most frequently used one both for mothers and fathers of children with autism. Elçi discussed this finding as having high educational level of both mothers and fathers might have directed them to use problem focused coping ways most frequently. Moreover, according to this study, stress levels of both mothers and fathers were found to be associated with the parental burnout levels.

Akçakın and Erden (2001) conducted a study in order to compare parents of children with autism and children with typical development in terms of some personality characteristics. They also aimed to compare mothers and fathers of autism group for assessing the same set of personality characteristics. Parents of 48 children with autism and 34 children with normal development were participated in this study. All parents were assessed on anxiety, depression, and obsessive-compulsivity measures. Akçakın and Erden (2001) found consistent with the existing literature that mothers of children with autism reported higher depressive levels than mothers in control group. Although depression levels of these mothers were significantly higher than mothers in control group, the scores did not meet the diagnostic criteria. Parents of autism and control group did not differ on other measures. However, mothers from both groups were found to report significantly higher anxiety levels than fathers.

In another study, the relationship between perceived social support and depression levels of mothers of children with autism and the predictors of this relationship were investigated (Görgü, 2005). Mothers of 135 children with autism aged between 3 and 7 were participated in this study. According to this study, mothers with lower educational levels were found to perceive lower social support from family members, significant others, friends. Total perceived social support levels were also found to be lower for mothers who had lower educational levels. In addition, working mothers perceived significantly higher social support levels. Mothers of this study perceived

higher social support when fathers had higher educational level and when family socioeconomic status was higher. Finally, Görgü (2005) found that depression levels of mothers were associated with the perception of higher social support.

Küçüker (2001) examined the effectiveness of the early intervention program on parental stress and depression levels. The sample of this study composed of 29 mothers and 28 fathers of children with developmental delays. It was found that depression levels of both mothers and fathers significantly decreased by the implementation of the early intervention program. However, total stress levels of parents did not change after the intervention program. According to Küçüker (2001), the reason for nonsignificance in parents' total stress levels may be related to long term effect of experiencing child's difficulties.

CHAPTER 3

PSYCHOMETRIC STUDIES OF THE INSTRUMENTS ADAPTED FOR THE MAIN STUDY

3.1 STUDY 1

The aim of this first study was to conduct the reliability and validity analyses of the Flexibility and Cohesion Evaluation Scales – IV (FACES-IV). This section presents the method and the results of data analyses of the first study.

3.1.1 METHOD

The method of the first study introduces characteristics of the participants, instruments, and procedure.

3.1.1.1 Participants

The sampling of this study was designed as convenience/snowball sampling method. The convenience portion of the sample consisted of 279 university students with 187 females (67.03 %) and 92 males (32.97 %). The age of the total university student sample was ranging from 17 to 33 with the mean of 21.48 years (SD = 2.36). The average age of females was 21.16 years (SD = 1.96) and of males was 22.16 years (SD = 2.88). Besides, the additional participants, 28 people with 23 (82.14 %) females and 5 males (17.86 %), were

reached through snowball sampling method. The age range of the snowball group was ranging among 17 to 57 with the mean of 32.43 years (SD = 10.54). Total number of the participants were 307 individuals with 210 females (68.40 %) and 97 males (31.60 %). The age of total sample was 22.49 years (SD = 4.97). The average age was 22.23 (SD = 4.62) for females and 23.04 (SD = 5.65) for males. The distribution of the whole sample in terms of education and gender are presented in Table 2.

Table 2. Distribution of Participants in Terms of Education and Gender

	Gender			
	Female		**Male**	
Education Level	**Age M (SD)**	**Total Number**	**Age M (SD)**	**Total Number**
High School	53	1	53	1
University Student	21.16 (SD = 1.96)	187	22.16 (SD = 2.88)	92
University Graduate	30.85 (SD = 7.15)	13	35.75 (SD = 15.17)	4
Graduate (MS, Doctorate)	30.12 (SD = 8.36)	8		

3.1.1.2 Instruments

Two instruments were used in this study. Flexibility and Cohesion Evaluation Scales – Fourth Edition (FACES IV; Olson, Gorall, & Tiesel, 2004) **(see Appendix B-C)** and McMaster Family Assessment Device (MMFAD; Epstein, Baldwin, & Bishop, 1983) **(see Appendix D)** were given to the participants in order to conduct validity analyses of the Turkish version of FACES IV.

3.1.1.2.1 Flexibility and Cohesion Evaluation Scales – IV (FACES-IV)

Flexibility and Cohesion Evaluation Scales IV was developed by Olson et al. (2004) as a family assessment tool useful for research and clinical work with families in order to assess the health of the family unit based on the two family functioning dimensions of cohesion and flexibility. It is a reliable and valid 62-item self-report instrument, in which the first 52 statements are rated by the respondents on a 1-5 Likert-type response format ranging from '1'(does not describe our family at all) to '5' (very well describes our family). The last ten items are rated on a 1 to 5 Likert scale ranging from '1' (very dissatisfied) to '5' (very satisfied) in regard to family functioning. The measure can be applied to all family members over 12 years of age. There are six subscales of FACES IV, which are grouped as balanced and unbalanced scales. While Cohesion and Flexibility subscales constitute the balanced subscales, Disengaged, Enmeshed, Chaotic, and Rigid subscales are considered as the unbalanced ones. The general family functioning interpretation is available based on the ratio scores, Cohesion Ratio, Flexibility Ratio, and Total Circumplex Ratio. These scores are obtained by dividing the balanced subscale scores to unbalanced ones. While lower ratio scores indicate lower and unbalanced family functioning, the higher ratio scores are considered as the indicator of balanced and healthier family functioning. FACES IV was derived from the Circumplex Model of Marital and Family Systems and assesses family functioning processes based on two main dimensions, cohesion and flexibility. According to the central hypothesis of the model, cohesion and

flexibility concepts have a curvilinear relationship with family functioning which means that very low and very high levels of cohesion and flexibility are related to problematic family functioning, and that moderate levels of cohesion and flexibility are related to healthy family functioning. The measure consists of six separate scales, with two balanced scales designed to assess the balanced aspects of cohesion and flexibility (balanced cohesion and balanced flexibility) and four unbalanced scales designed to tap the high and low extremes of the cohesion (disengaged and enmeshed) and flexibility dimensions (rigid and chaotic). These subscales were derived from the factor analysis of all FACES IV items.

The factor analysis of FACES IV was conducted with oblique rotation because of the correlation between the scales designed to tap specific regions of cohesion and flexibility (Craddock, 2001; Franklin, Streeter, & Springer, 2001; Tiesel, 1994). As suggested by Kline (1994), the pattern matrix of the oblimin rotation was analyzed to tap into factors where correlations between the factors are present. The scales were labeled according to the cohesion and flexibility aspects. The Enmeshed, Cohesion, and Disengaged Scales were designed to tap high, moderate, and low cohesion aspects, respectively; the Chaotic, Flexibility, and Rigid scales were designed to tap high, moderate, and low flexibility aspects, respectively. For reliability studies of the measure, an alpha reliability analysis was used to investigate the internal consistency of the six scales. The Cronbach's alpha scores of the six FACES IV scales were found as .87, .77, .83, .85, .89, and .80 for Disengaged, Enmeshed, Rigid,

Chaotic, Cohesion, and Flexibility scales, respectively. For assessing validity of FACES IV, the Family Satisfaction Scale (Olson & Stewart, 1989), Self-report Family Inventory (Beavers, Hampson, & Hulgus, 1990), McMaster Family Assessment Device (Epstein et al., 1983) were used to investigate concurrent validity. Significant correlations were observed between the FACES IV scales and the validation scales of Self-Report Family Inventory, McMaster Family Assessment Device and Family Satisfaction Scale. The FACES IV scales which are designed to measure the moderate levels of cohesion and flexibility (balanced cohesion and balanced flexibility) were positively correlated with the validation scales, while the FACES IV scales which measure the high and low extremes (enmeshed, disengaged, chaos, rigid) had negative correlations with the validation scales.

3.1.1.2.2 McMaster Family Assessment Device (MMFAD)

The McMaster Family Assessment Device (MMFAD) was developed by Epstein et al. (1983) in order to get information on different dimensions of family system and problem areas within the family functioning. The MMFAD contains 60 items with responses ranging from 1 “I do not agree at all” to 4 “I agree completely”. It is a self-report questionnaire which can be completed by family members above 12 years of age. The MMFAD has seven subscales, namely, Problem Solving, Communication, Roles, Affective Responsiveness, Affective Involvement, Behavior Control, and General Functioning. While higher scores in these areas indicate higher levels of dysfunction, lower scores indicate healthy family functioning within the family unit. All subscales of

MMFAD refer to different family functioning elements. Problem Solving subscale indicates to family's ability to solve financial and relational problems in an effective manner. Communication subscale aims to assess the effectiveness of family communication style. Roles subscale refers to behavior patterns that meet family's needs and also refers to clear and equal distribution of roles within the family unit. Affective Responsiveness subscale refers family's ability to show the most appropriate reaction in response to different kind of situations. Affective Involvement subscale includes the degree of affection, care, and interest the family members show each other. Behavior Control subscale refers to family's general pattern of behavior control and discipline maintenance for its members. Finally, General Functioning subscale refers to gather information for general family functioning in accordance with the previous factors. Reliability analyses of MMFAD were conducted by examining Cronbach alpha values for internal consistency and test-retest reliability analyses. Internal consistency of the measure was found to range between .72 and .92 which indicated high internal consistency. In order to assess test-retest reliability, the instrument was applied to a group of participants twice for 15 days intervals. The Cronbach alpha coefficients were found between .66 (Problem Solving) to .76 (Affective Responsiveness) as an indication of test-retest reliability. For validity analyses, convergent validity of MMFAD was assessed. Convergent validity of MMFAD was examined with the Philadelphia Geriatric Center (PGC) Moral Scale (Lawton, 1975), Locke-Wallace Marital Adjustment Scale (LWMAT) (Locke, & Wallace, 1959) and

Family Unit Inventory (FUI) (VanderVeen & Olson, 1981). Significant correlations have been found between MMFAD and LWMAT, PGC, and FUI that indicated MMFAD as a strong instrument in assessing family functioning.

Psychometric studies of MMFAD were conducted by Bulut (1990). In terms of reliability studies of Turkish MMFAD, internal consistency and test-retest reliability analyses were conducted. Cronbach alpha coefficients ranged between .38 (Affective Involvement) and .86 (General Functioning) for internal consistency and ranged between .62 (Affective Involvement) and .90 (Problem Solving) for test-retest reliability. Furthermore, for validity studies, construct validity analyses were conducted with two different groups of sample, the first group of analysis constituted of the comparison of married couples with normal functioning and married couples in divorce process and the second group of analysis constituted of the comparison of families with a member who had psychiatric disorder and families without such a psychiatric disordered member. MMFAD had significantly differentiated both groups of sample in terms of family functioning. In addition, in order to evaluate concurrent validity, MMFAD applied to a group of sample with the Marriage Life Questionnaire developed by Tezer (1986) and has been found to correlate with this questionnaire, at $\underline{r} = .66$, $\underline{p} < .001$. In other words, general functioning of the families were found to increase with higher marriage satisfaction. As a result of the psychometric analyses, the Turkish MMFAD has been found to be a reliable and valid measure for the Turkish culture.

3.1.1.3 Procedure

First of all, the permission for the Turkish translation and psychometric studies of the FACES IV was taken from Life Innovations, Inc. which had the copyrights of the scales. The translation of the scales was conducted according to the translation permission agreement which had been stated by the company. The FACES IV was first translated from English to Turkish by two colleagues who were fluent in English and PhD candidates in clinical psychology. The independently translated scales were evaluated in terms of similarities and discrepancies. According to the grammatical and cultural relevancies of the sentences into Turkish language and culture, the unified version of the translations was created. As the next step, the unified version of the scale was back-translated into English by two researchers who were different from the first step of the translation procedure, were fluent in English, and have lived in two cultures for a long time. Similarly, two back-translated versions were combined into one form regarding the similarities, discrepancies and grammatical and cultural relevancies. At the last step, the back-translation was sent to the company for their evaluation. Finally, the back-translation was approved by the company without any revision and the procedure has been completed.

The recruitment process has been accomplished with the participants of four different universities from Ankara and İstanbul. The universities were Ankara University, Middle East Technical University, Doğuş University, and Ufuk University. Each student was given extra credit for completing the

questionnaires which were applied to the students either by the researcher or the instructor of the lecture. It took approximately 30 minutes for the participants to complete the questionnaires. For the application procedure, once the required instructions had been given to the participants, they completed the questionnaires during the lesson and returned them to the researcher or to their instructor. The participant students were also given the option of earning extra credit by having others (their family members, friends, or fellow students) they know also complete the questionnaires. The ones who had accepted this option were given additional questionnaires with the required instructions. These additional questionnaires were collected by the instructors after completed and then returned to the researcher.

3.1.2 RESULTS

The results of the reliability and validity analyses of the Turkish version of FACES IV are presented in this section. For reliability analyses, internal consistency and split-half reliability analyses were conducted. For validity analyses, construct and convergent validities of the Turkish version of the FACES IV were examined.

3.1.2.1 Internal Consistency Reliability for the Turkish Version of the FACES IV Balanced, Unbalanced Scales, and Additional Family Communication and Satisfaction Scales

According to the original factor structure of FACES IV, the Cronbach alpha coefficients were computed in order to examine the internal consistency

of the six balanced and unbalanced scales. While Cohesion and Flexibility scales constitute the balanced scales, Disengaged, Enmeshed, Rigid, and Chaotic scales constitute the unbalanced ones. The Cronbach alpha coefficients for internal consistency of the six subscales of FACES IV are .69, .70, .76, .80, .81, and .83, for Chaotic, Rigid, Enmeshed, Disengaged, Flexibility, and Cohesion, respectively. In addition to balanced and unbalanced scales, the additional scales of Family Communication and Family Satisfaction scales of FACES IV were also examined in terms of internal consistency. Cronbach Alpha values of FACES IV Family Communication and Family Satisfaction Scale were found as .92 and .91, respectively.

3.1.2.2 Split-Half Reliability for the Turkish Version of the FACES IV Balanced, Unbalanced and Additional Family Communication and Satisfaction Scales

Spearman-Brown Split Half reliability analysis was conducted for balanced and unbalanced scales of the Turkish version of the FACES IV. Spearman-Brown coefficients were found as .51, .70, .73, .76, .77, and .79 for Chaotic, Enmeshed, Rigid, Flexibility, Disengaged, and Cohesion scales, respectively. In addition, for the Turkish version of FACES IV Family Communication and Family Satisfaction scales, Spearman-Brown coefficients were found as .91 for both scales.

3.1.2.3 Construct Validity of the Turkish Version of the FACES IV

For examining the construct validity of the Turkish version of FACES IV, first, intercorrelations among six subscales of the FACES IV were checked, and then the correlations between the subscales of the FACES IV and the general functioning subscale of MMFAD in order to support the convergent validity.

3.1.2.3.1 Intercorrelations among the Subscales of the Turkish Version of FACES IV

The construct validity of the Turkish version of the FACES IV was assessed by inter correlations among the six scales of the FACES IV. The inter correlation values were ranging between -.65 and .76. According to this analysis, balanced cohesion scale correlated with balanced flexibility at $\underline{r} = .76$, $\underline{p} < .01$ and with unbalanced scales, of disengaged and enmeshed at $\underline{r} = -.65$ and $\underline{r} = .22$, both $\underline{p} < .01$, and with unbalanced scales of rigid and chaotic at $\underline{r} = -.14$, and $\underline{r} = -.39$, both $\underline{p} < .05$. In addition, balanced flexibility scale correlated with unbalanced scales of disengaged and enmeshed at $\underline{r} = -.50$ and $\underline{r} = .25$, both $\underline{p} < .01$, and with unbalanced scales of chaotic and rigid at $\underline{r} = -.26$ and $\underline{r} = -.12$, both $\underline{p} < .05$. Among unbalanced scales, there is a significant correlation between enmeshed and rigid scale at $\underline{r} = .30$, and chaotic scale at $\underline{r} = .54$ ($\underline{p} < .01$). Moreover, enmeshed scale correlated with rigid and chaotic scale at $\underline{r} = .42$ and $\underline{r} = .12$, respectively. However, there were not significant correlations between unbalanced disengaged and rigid scales, and between unbalanced rigid and chaotic scales.

3.1.2.3.2 Convergent Validity of the Turkish Version of the FACES IV

The convergent validity of the Turkish version of the FACES IV was measured by examining the correlations between six balanced and unbalanced and two additional scales of FACES IV and general functioning subscale of MMFAD. The reason for this selecting this subscale has a theoretical base. First of all, for the original development process of FACES IV, general functioning subscale of MMFAD was one of the basic scales used in the validity studies. In the previous studies, this subscale has been found to have a negative linear relationship with the previous version of FACES since lower scores in MMFAD represented healthier family functioning. Additionally, since the general functioning subscale has also been found to be one of the strongest scales to assess unique variation in family functioning, this subscale of MMFAD was chosen for validation study (Ridenour, Daley, & Reich, 1999).

The results showed that, there was a significant negative correlation between balanced cohesion and flexibility scales and general functioning subscale at $\underline{r} = -.74$, and $\underline{r} = -.67$, respectively, both $\underline{p} < .01$. Increase in balanced cohesion and flexibility was associated with higher general functioning within families. Moreover, there were significant positive correlations between general functioning and unbalanced disengaged, rigid, and chaotic scales of FACES IV at $\underline{r} = .65$, $\underline{p} < .01$, $\underline{r} = .11$, $\underline{p} < .05$, and $\underline{r} = .42$, $\underline{p} < .01$, respectively, which indicated an association between lower family functioning and higher disengagement, rigidity, and chaos in families. On the

other hand, different from the original scale, it was found a significant negative association between general family functioning and unbalanced enmeshed scale at $r = -.14$, $p < .05$. According to the data from Turkish sample, increase in enmeshment indicated an association with higher functioning within the family. For the Family Communication and Satisfaction Scales of FACES IV, the results indicated a significant negative association between these scales and the general functioning subscale, at $r = -.80$ and $r = -.75$, respectively, both $p < .01$. An increase in both communication and satisfaction level within the family was associated with high family functioning.

As a result of the reliability and validity studies, the Turkish version of Flexibility and Cohesion Evaluation Scales IV (FACES IV) showed reliable and valid results in order to measure family functioning in terms of flexibility and cohesion dimensions.

3.2 STUDY 2

The aim of the study is to conduct the reliability and validity analyses of the Parenting Stress Index/Short Form (PSI/SF). The method and results of data analyses of the second study were presented in this section.

3.2.1 METHOD

The method of the second study presents characteristics of the participants, instruments, and procedure.

3.2.1.1 Participants

The purposive sampling method was used to determine the participants of this study. The sample of the study consisted of 148 parents. 123 (83.11 %) mothers and 25 (16.89 %) fathers participated in this study. The age range of the total participants was ranging from 20 and 49 with the mean of 33.36 years (SD = 5.90). The average age of mothers was 32.57 years (SD = 5.63) and of fathers 37.38 years (SD = 5.74). The age range of children was ranging from 0 to 12 with the mean of 5.68 years (SD = 2.74). 67 of the children were girls and 81 of the children were boys. The average age of the girls was 5.52 years (SD = 2.87) and of the boys 5.81 years (SD = 2.64).

3.2.1.2 Instruments

Two instruments were used in the second study. Parenting Stress Index/Short Form (PSI/SF; Abidin, 1995b) **(see Appendix E-F)** and Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997) **(see Appendix G)** were

given to the participants in order to conduct validity analyses of the Turkish version of PSI/SF.

3.2.1.2.1 Parenting Stress Index/Short Form (PSI/SF)

The Parenting Stress Index/Short Form (PSI/SF) was developed by Abidin (1995a) in order to assess the primary components of the parent-child system by focusing on the parent, the child, and their interactions. The PSI/SF is derived from the full-length test of Parenting Stress Index (PSI) and a reliable and valid 36-item Likert-type self report instrument with the responses ranging from '1' (Strongly Agree – SA) to '5' (Strongly Disagree – SD). Some items are different from SA and SD Likert-type response. These items present a cue for a different response format (e.g., "For the next statement, choose your response from the choices '1' to '5' below"). The PSI/SF can be applied to the parents of children aged between 0-12 years. The measure has three subscales that are labeled as Parental Distress (PD), Parent-Child Dysfunctional Interaction (P-CDI), and Difficult Child (DC). Apart from these subscales this measure can be evaluated by Total Stress score derived from sum of three subscale scores. For the interpretation of PSI/SF, scores of all subscales within the 15^{th} and 80^{th} percentile are in the normal range. Besides, the respondents experience significantly high stress when the reported scores are at or above the 85^{th} percentile. Higher scores for each subscale and for Total Stress score indicate an appearance of problem for the related area. The highest elevation of PD subscale among three subscales of PSI/SF is considered as an indicator of the necessity to further exploration of parent's personal adjustment. Besides,

high scores in P-CDI subscale indicate dysfunction in parent-child interaction style by either indicators of signals of threat in parent-child bond or indicators of insufficiently established bond between a parent and a child. As for DC, the third subscale of PSI/SF, while higher scores reported by parents of children younger 18 months of age may indicate significant difficulties in self-regulatory processes, higher scores reported by parents of children 2 years of age and older may point to significant child behavioral adjustment problems and may need further diagnostic investigations to explore the presence of significant psychopathology. Finally, higher scores on Total Stress indicate higher parental stress levels.

The subscales of PSI/SF was developed through a series of factor analyses which resulted in three factors as the best factor solution, PD (Factor I), P-CDI (Factor II), and DC (Factor III). The PD subscale indicates the level of distress a parent is experiencing related to parental role functioning. The stress components associated with this subscale are impaired sense of parental competence, sense of restrictions placed on other areas of life, experienced conflict with spouse, lack of social support, and presence of depressive mood. The items loaded on the first factor indicated parental distress, such as "I feel trapped by my responsibilities as a parent", and "Having a child has caused more problems than I expected in my relationship with my spouse." The P-CDI subscale focuses on parental perceptions whether parents' expectations are met by their most concerned child, and on whether the interactions between parents and the child are reinforcing them as a parent. This second factor signals

dissatisfaction from parent-child interaction and includes items as, “My child is not able to do as much as I expected”, and “I expected to have closer and warmer feelings for my child than I do, and this bothers me.” As the third subscales of PSI/SF, the DC subscale focuses primarily on behavioral characteristics of children which make parental management either easy or difficult. These characteristics include both innate (i.e., temperament) and learned behavioral patterns (i.e., defiant, noncompliant, and demanding behaviors). Items loaded on the third factor are related to the child’s self-regulatory capacity, such as, “My child seems to cry or fuss more than most children.” The Total Stress score indicates the overall level of experienced parental stress. This total score, as a composite of three subscales of PD, P-CDI, and DC, reflects personal parenting distress, stresses that result from parent-child interaction, and child’s behavioral characteristics.

Reliability and validity analyses of PSI/SF were conducted to a sample of mothers who brought their child for a 1-year well-care visit to a Pediatrician. Reliability analyses of the PSI/SF were conducted by both test-retest and internal consistency reliability analyses. The Cronbach’s alpha scores of three subscales and total stress score of PSI/SF were found as .91, .87, .80, and .85, indicating internal consistency, and the test-retest reliability as .84, .85, .68, and .78 for Total Stress, PD, P-CDI, and DC, respectively. For the validity analysis, the correlations between the PSI/SF and the full-length PSI were examined to support the concurrent validity of the PSI/SF. Total Stress on the full-length PSI has been found to correlate .94. Correlations between the

subscales of PSI/SF and full-length PSI showed that the PD subscale score was highly correlated with the Parent Domain score of the full-length PSI ($\underline{r}$ = .92). Similarly, the DC subscale was highly correlated with the Child Domain score of the full-length PSI ($\underline{r}$ = .87). P-CDI was correlated .73 and .50 with the Child Domain and the Parent Domain scores from the full-length PSI, respectively. Since the P-CDI subscale had items from both domains, these low correlations were expected.

3.2.1.2.2 Strengths and Difficulties Questionnaire (SDQ)

The Strengths and Difficulties Questionnaire (SDQ) was developed by Goodman (1997) as a brief behavioral screening device in order to assess the prosocial behavior and emotional and behavioral problems of children aged between 4 to 16 years. Items' responses of this measure are ranged as 0 (not true), 1 (somewhat true), and 2 (certainly true). The SDQ has 5 subscales, named as Emotional Symptoms, Conduct Problems, Hyperactivity-Inattention, Peer Problems, and Prosocial Behaviors, each of which includes 5 items and all together create a composite of 25 positive and negative attributes. Higher scores in subscales indicate high emotional symptoms, higher inattentive behavioral pattern and higher activity level, more problems with peers, and higher prosocial behaviors. The Total Difficulty score is composed of the sum of all subscales except the Prosocial Behavior. This instrument can be applied both to parents and teachers of children aged between 4-16 years. The questionnaire has also a self-report version suitable for adolescents between 11-16 years of age (Goodman, Meltzer, & Bailey, 1998).

Reliability and validity analyses of SDQ were conducted by Goodman (2001). Reliability of SDQ was assessed by examining the Cronbach alpha values. The Cronbach alpha coefficients of five factors ranged between .57 and .82 for Parent form of SDQ and .70 and .87 for Teacher form of SDQ. Additionally, correlations between parent and teacher ratings were examined for inter-rater reliability and correlations ranged between .25 and .48, all at $p < .001$. Moreover, test-retest reliability was assessed by 4 and 6 months intervals and correlations were found as between .57 and .72 in parents ratings and between .65 and .82 in teacher ratings, all at $p < .001$ (Goodman, 2001). For validity analyses, convergent validity was evaluated by using Child Behavior Checklist (CBCL; Achenbach, 1991) by Goodman and Scott (1999). Scores from these two measures were found to be highly correlated and they both were found to be able to discriminate psychiatric cases from the normal population.

Turkish translation of the SDQ was done by Güvenir, Özbek, Baykara, Onurgüder, and Kazak Berument and the psychometric studies of the Turkish version of SDQ were conducted by Güvenir, Özbek, Baykara, Arkar, Şentürk, and İncekaş (2008). For assessing reliability of SDQ Cronbach alpha values were examined. The Cronbach alpha coefficients were .73, .65, .80, .37, .73, and .84, for the subscales of Emotional Symptoms, Conduct Problems, Hyperactivity-Inattention, Peer Problems, and Prosocial Behaviors and Total Difficulty score, respectively. For assessing convergent validity, Child Behavior Checklist for ages 4-18 (CBCL; Achenbach, 1991) was used as in the

original validity study of SDQ. Subscale scores Turkish version of SDQ and CBCL were found to be highly correlated. Furthermore, the Total Difficulty score of SDQ and the Total Problem score of CBCL were also found to be highly correlated, $r = .80$, $p < .001$. Like in the original version of the measure, Turkish SDQ was also found to be able to differentiate the clinical and control groups.

3.2.1.3 Procedure

First, the permission for the Turkish translation and adaptation of PSI/SF was taken Psychological Assessment Resources, Inc. (PAR, INC) which had the copyright of the scale. The procedures of the scale was conducted as following the procedures same as the Flexibility and Cohesion Scales IV (FACES-IV). The PSI/SF was first translated from English to Turkish by two colleagues. Each of these persons was fluent in English and PhD candidates in clinical psychology. The independently translated scales were evaluated in terms of similarities and discrepancies. According to the grammatical and cultural relevancies of the sentences into Turkish language and culture, the unified version of the translations was created. As the second step, the unified version of the scale was back-translated into English by two researchers who were different from the first step of the translation procedure, were fluent in English, and have lived in two cultures for a long time. Similarly, two back-translated versions were combined into one unified form regarding the similarities, discrepancies and grammatical and cultural relevancies. As the final step, the back-translated and unified version of the

scale was sent to PAR, INC for their evaluation. The back-translation was approved by the company without any revision and the translation procedure has been completed.

The recruitment process has been planned as similar to the recruitment procedure of the original scale development. In the original development procedure, the PSI/SF was administered to the group of mothers who brought their children for a well-care visit to pediatric practice. For the standardization study of the Turkish version of PSI/SF, the target sample is also designed by including parents who brought their children to the pediatric services of hospitals for any reason. Parents of children with no chronic illness have been chosen and the problem of the child had not been considered as a selection criteria. The only criterion was the age range of the child which should have been ranged between 0 to 12 years old. The pediatric services of a private hospital and of a small clinic were used for data recruitment. Each participant was directed after their routine control by the pediatricians for participating in the study. The ones who were willing to participate in the study were introduced to the researcher and to the scales. It took approximately 10 minutes for the participants to complete the questionnaires. All of the applications were done by the researcher.

3.2.2 RESULTS

The results of the reliability and validity analyses of the Turkish version of PSI/SF are given in this section. For reliability analyses, internal consistency and split-half reliabilities of the Turkish version of PSI/SF were examined. For

validity analyses, construct and convergent validities were investigated and presented.

3.2.2.1 Internal Consistency Reliability for the Turkish Version of the Subscales and Total Stress Scale of PSI/SF

According to the original factor structure of PSI/SF, the Cronbach alpha coefficients were computed in order to examine the internal consistency of the three subscales which were Parental Distress (PD), Parent-Child Dysfunctional Interaction (P-CDI), and Difficult Child (DC). The Cronbach alpha coefficients for internal consistency of the three subscales and the Total Stress score of PSI/SF are .83, .84, .87, and .92 for PD, P-CDI, DC, and Total Stress score, respectively.

3.2.2.2 Split Half Reliability for the Subscales of the Turkish Version of the PSI/SF

Spearman-Brown Split Half reliability coefficients were calculated for the subscales of PSI/SF. The Spearman-Brown coefficients were found as .78, .81, .82, and .88 for PD, Total Stress, DC, and P-CDI, respectively.

3.2.2.3 Construct Validity of the Turkish Version of the PSI/SF

The construct validity of the Turkish version of the PSI/SF was first examined by the intercorrelations among the subscales of the measure. Then, the correlations between the subscales of PSI/SF and the subscales of SDQ were checked for the evaluation of convergent validity.

3.2.2.3.1 Intercorrelations among the Subscales of the Turkish Version of PSI/SF

The construct validity of the PSI/SF was assessed by intercorrelations among the three subscales plus total stress score of the PSI/SF. The intercorrelation values were ranging between .51 and .87. According to this analysis, PD subscale was correlated with P-CDI subscale at $\underline{r} = .53$, $\underline{p} < .01$ and with DC subscale at $\underline{r} = .51$, $\underline{p} < .01$. Moreover, P-CDI subscale was correlated with DC scale at $\underline{r} = .67$, $\underline{p} < .01$. Lastly, Total Stress was correlated with PD at $\underline{r} = .82$, $\underline{p} < .01$, with P-CDI at $\underline{r} = .85$, $\underline{p} < .01$, and with DC at $\underline{r} = .87$, $\underline{p} < .01$.

3.2.2.3.2 Convergent Validity of the Turkish Version of the PSI/SF

The convergent validity was measured by examining the correlations between three subscales plus total stress score of PSI/SF and five subscales of SDQ. The results show that there was a significant positive correlation between PD subscale of PSI/SF and Emotional Symptoms, Conduct Problems, Hyperactivity - Inattention and Peer Problems subscales of SDQ, at $\underline{r} = .47$, $\underline{p} < .01$, $\underline{r} = .31$, $\underline{p} < .01$, $\underline{r} = .34$, $\underline{p} < .01$, and $\underline{r} = .26$, $\underline{p} < .05$, respectively. Increase in parental distress was associated with increase in emotional symptoms, conduct problems, hyperactivity-inattention, and peer problems in the child. On the other hand, there was no correlation between PD and Prosocial Behavior. Moreover, there was a significant positive correlation

between P-CDI subscale of PSI/SF and Emotional Symptoms, Conduct Problems, Hyperactivity-Inattention, and Peer Problems subscales of SDQ, at $r = .59$, $p < .01$, $r = .56$, $p < .01$, $r = .53$, $p < .01$, and $r = .42$, $p < .01$, respectively. As dysfunctional interaction between the parent and the child increased, the emotional symptoms, conduct problems, hyperactivity-inattention and peer problems of the child increased. Besides, P-CDI was negatively correlated with Prosocial Behavior at $r = -.43$, $p < .01$, which meant increase in dysfunctional interaction between the parent and the child was associated with the decrease in prosocial behavior of the child. Finally, there was a significant positive correlation between DC subscale of PSI/SF and Emotional Symptoms, Conduct Problems, Hyperactivity-Inattention, and Peer Problems subscales of SDQ, at $r = .58$, $p < .01$, $r = .62$, $p < .01$, $r = .56$, $p < .01$, and $r = .35$, $p < .01$, respectively. Increase in child difficulty was associated with the increase in emotional symptoms, conduct problems, hyperactivity-inattention, and peer problems in the child. However there was a significant negative correlation between DC and Prosocial Behavior, at $r = -.30$, $p < .01$. As the increment in child difficulty was associated with the decrement in prosocial behavior of the child.

As a result of the reliability and validity studies, the Turkish version of Parenting Stress Index / Short Form (PSI/SF) showed reliable and valid results in order to measure parental stress level for the Turkish culture.

CHAPTER 4

MAIN STUDY

4.1 METHOD

This section introduces the method of the main study including characteristics of participants, instruments, procedure, and data analyses with the composition of two sample groups; the mothers of children with autism from Turkey and from the U.S.

4.1.1 Participants

The sample of the main study was determined according to purposive sampling method. The participants of this study were 88 mothers of children with ASD ranging in age from 2 to 7 years with a mean of 5.01 years (SD = 1.33) and 59.52 months (SD = 15.73). The study included 40 mothers (45.5 %) from Turkey and 48 mothers (54.5 %) from the U.S.

Children's demographics: Age mean of the children from Turkey was 52.05 months (SD = 16.13) and from the U.S. was 66.67 months (SD = 13.38). 20 of whole children were females (22.7 %) and 68 of them were males (77.3 %). Among children from Turkey, 8 (20 %) of them were females and 32 (80 %) of them were males. Additionally, among children from the U.S., 12 (25 %) of them were females and 36 (75 %) of these children were males. Taken as a whole, while male-female ratio for Turkey was 5:1; this ratio

was 4:1 for the U.S. in the current study. Age of diagnosis for the whole sample was ranging from 12 months to 61 months with a mean of 31.10 months (SD = 9.55). While the mean of diagnosis age for children from Turkey was 30.20 months (SD = 8.84), it was 31.85 months (SD = 10.13) for children from the U.S. The demographic characteristics of children are given in Table 3.

Table 3. Child Related Demographic Characteristics for the Whole Sample

		Turkey n (%)	United States n (%)	Whole Sample n (%)
Number of Participants		40 (45.5 %)	48 (54.5 %)	88 (100 %)
Gender of the child	**Female**	8 (20 %)	12 (25 %)	20 (22.7 %)
	Male	32 (80 %)	36 (75 %)	68 (77.3 %)
Children's age (in months)	**24-36**	6 (15 %)	-	6 (6.8 %)
	36-48	11 (27.5 %)	5 (10.4 %)	16 (18.2 %)
	48-60	8 (20 %)	10 (20.8 %)	18 (20.4 %)
	60-72	9 (22.5 %)	15 (27.1 %)	24 (27.3 %)
	72-84	6 (15 %)	13 (31.3 %)	19 (21.6 %)
	84-96	-	5 (10.4 %)	5 (5.7 %)

Mothers' demographics: Age of participant mothers were ranging from 25 to 48 years with a mean of 34.95 (SD = 5.06) for the overall sample of this study. For the mothers of children with autism from Turkey, mean age of mothers were 33.21 years (SD =4.32). Mean age of mothers from the U.S. were 36.40 years (SD = 5.23). In addition fathers' age were ranging from 28 to 60 years with a mean of fathers were 38.44 (SD = 6.56) for the whole sample, 36.82 (SD = 4.78) for Turkey part, and 39.80 (SD = 7.51) for the U.S. part of the study. The details of socio-demographic characteristics of the whole sample are also given in Table 4.

Table 4. Distribution of Socio-Demographic Characteristics of the Whole Sample in accordance with the Country

		Turkey n (%)	United States n (%)	Whole Sample n (%)
Number of Participants		**40 (45.5 %)**	**48 (54.5 %)**	**88 (100 %)**
Education Level (Mothers)	**Illiterate**	—	—	—
	Literate	—	—	—
	Primary	3 (7.5 %)	—	3 (3.4 %)
	Secondary	1 (2.5 %)	—	1 (1.1 %)
	High school	11 (27.5 %)	3 (6.2 %)	14 (15.9 %)
	Senior high school / College	5 (12.5 %)	15 (31.2 %)	20 (22.7 %)
	University	19 (47.5 %)	12 (25 %)	31 (35.2 %)
	Advanced degree	1 (2.5 %)	18 (37.5 %)	19 (21.6 %)
Education Level (Fathers)	**Illiterate**	—	—	—
	Literate	—	—	—
	Primary	3 (7.5 %)	—	3 (3.4 %)
	Secondary	—	—	—
	High school	5 (12.5 %)	7 (14.6 %)	12 (13.6 %)
	Senior high school / College	5 (12.5 %)	13 (27.1 %)	18 (20.5 %)
	University	23 (57.5 %)	13 (27.1 %)	36 (40.9 %)
	Advanced degree	4 (10 %)	15 (31.2 %)	19 (21.6 %)
Socioeconomic Status (*TL = Turkish Lira/ US $ = U.S. Dollar)	**≥ 1.000 TL / ≥ 10.000 US $ (annual)**	5 (12.5 %)	2 (4.2 %)	7 (8.0 %)
	1.000 – 1.500 TL / 10 – 20.000 US $ (annual)	6 (15.0 %)	2 (4.2 %)	8 (9.1 %)
	1.500 – 2.000 TL / 20 – 30.000 US $ (annual)	7 (17.5 %)	—	7 (8.0 %)
	2000 – 2.500 TL / 30 – 40.000 US $ (annual)	3 (7.5 %)	3 (6.2 %)	6 (6.8 %)
	2.500 – 3.000 TL / 40 – 50.000 US $ (annual)	7 (17.5 %)	4 (8.3 %)	11 (12.5 %)
	3.000 – 4.000 TL / 50 – 60.000 US $ (annual)	8 (20.0 %)	7 (14.6 %)	15 (17.0 %)
	≤ 4.000 TL / ≤ 60.000 US $ (annual)	4 (10.0 %)	30 (62.5 %)	34 (38.6 %)

* Currency at the time of the analyses conducted: 1 TL = 0.61 US $ (Indicative Exchange rates announced on January 30, 2009 by the Central Bank of Turkey)

Table 4. Distribution of Socio-Demographic Characteristics of the Whole Sample in accordance with the Country (Continued)

	Turkey 40 (45.5 %)	United States 48 (54.5 %)	Whole Sample 88 (100 %)
	M (SD)	M (SD)	M (SD)
Mother's age	33.21 (4.32)	36.40 (5.23)	34.95 (5.06)
Father's age	36.82 (4.78)	39.80 (7.51)	38.44 (6.56)
Child's age (in years / in months)	4.4 (1.41) / 52.05 (16.13)	5.6 (1.12) / 66.67 (13.38)	5.01 (1.33) / 59.52 (15.73)
Number of children in family	1.52 (0.68)	2.08 (0.85)	1.83 (0.82)
Number of household members	3.68 (0.86)	4.02 (0.89)	3.86 (0.89)

4.1.2 Instruments

The main study includes five instruments, Demographic Information Form **(See Appendix A)**, Parenting Stress Index / Short Form (PSI/SF) **(See Appendix E-F)**, Ways of Coping Questionnaire **(See Appendix H-I)**, Social Support Measures (Social Support Questionnaire – SSQ for the U.S. sample; Social Support Question Set for Turkey sample) **(See Appendix J; Appendix K)**, and Flexibility and Cohesion Evaluation Scales – Fourth Edition (FACES IV) **(See Appendix B-C)**.

4.1.2.1 Demographic Information Form

Demographic Information Form was developed by the researcher in order to gather family and child related demographic information. This form included some specific questions related to the whole family structure and to the child with autism. The reason for collecting information regarding both the family as a whole and the child with autism was to provide a better understanding of the certain characteristics of families who had participated in the present study. The family related information included questions such as, mothers' and fathers' age, education level, current relationship status, current living arrangements, and general family structure. Besides, the child related information was designed to have an inquiry specific to the child with autism. This part of the Demographic Information Form included the questions such as, age and gender of a child with autism, the year of child's diagnosis, the

presence of behavioral and drug therapy, the length of this treatment, and the presence of other children diagnosed with autism.

4.1.2.2 Parenting Stress Index/Short Form (PSI/SF)

The Parenting Stress Index/Short Form (PSI/SF) is a reliable and valid 36-item Likert-type self report instrument, developed by Abidin (1995b). This measure can be applied to parents of children aged between 0-12 years and assesses the primary components of the parent-child system by focusing on the parent, the child, and their interactions. Detailed information of Parenting Stress Index/Short Form (Abidin, 1995b) is presented in Study 2 (see Chapter 3, p. 80).

Turkish adaptation study of this measure was conducted by the researcher (see Study 2, Chapter 3). Reliability analyses of the Turkish version of the PSI/SF were assessed by internal consistency and split half reliability analyses. The Cronbach alpha coefficients for internal consistency of PSI/SF were found as .92, .83, .84, and .87, for Total Stress, Parental Distress, Parent-Child Dysfunctional Interaction, and Difficult Child, respectively. In addition, Spearman-Brown split half reliability coefficients were calculated for PSI/SF Total Stress score and subscales and coefficients were found as .81, .88, .82, and .78 for Total Stress, Parental Stress, Parent-Child Dysfunctional Interaction, and Difficult Child, respectively. Validity analyses of the Turkish version of PSI/SF were conducted by measuring construct and convergent validity. For construct validity analysis, PSI/SF was evaluated by intercorrelations among the subscale and total stress scores and strong

correlations were found among the subscale and total stress scores of the Turkish PSI/SF. Convergent validity of the Turkish version of PSI/SF was measured by examining the correlations between PSI/SF Total Stress and subscale scores and Strength and Difficulties Questionnaire (SDQ) subscales. As a satisfactory indication of convergent validity, PSI/SF was found to have strong correlations with SDQ. Details of psychometric studies of the Turkish version of PSI/SF can be found in Study 2 (see Study 2 in Chapter 3, pp. 79).

4.1.2.3 Ways of Coping Questionnaire (WAYS)

The Ways of Coping Questionnaire (WCQ; Folkman, & Lazarus, 1988) is a reliable and valid 66-item Likert-type self-report instrument, with the responses ranging from '0' (does not apply or not used) to '3' (used a great deal). This measure assesses thoughts and actions which an individual uses for coping with a specific stressful encounter in everyday life. The primary aim of the instrument is to assess coping processes. An earlier version of this questionnaire was named as the Ways of Coping Checklist and was developed within the Berkeley Stress and Coping Project. This instrument includes "yes" or "no" responses which required information on coping strategies in response to stressful events. Folkman and Lazarus (1980) conducted the first study using this checklist. Later on the Ways of Coping Checklist was revised with changing the response format from a yes-no to a 4-point Likert scale and was reported in the study of Folkman and Lazarus (1985). The items of the original Ways of Coping Checklist were based on "problem-focused" and "emotion-focused" dimensions. However classification with just these two dimensions

was found to be problematic because the strategy of seeking advice had a tendency to serve both problem and emotion-focused functions. That's why the revised version of the measure was named as the Ways of Coping Questionnaire and the original two scales were no longer used. Folkman and Lazarus (1985) conducted a study including a group of married couples. Analyses of the items were conducted using alpha values and principle factoring with oblique rotation. Eight factors were yielded as a result of analyses, namely: Confrontive Coping, describing aggressive efforts in response to the stressful situation; Distancing, describing mentally distancing from the situation in order to minimize the negative effects; Self-Controlling, describing efforts to control one's actions and feelings; Seeking Social Support, describing efforts to seek advice from others; Accepting Responsibility, describing accepting one's responsibility over the problem; Escape-Avoidance, describing wishful thinking and behavioral efforts as a way of escape and avoid the problem; Planful Problem Solving, describing planful problem-focused efforts to deal with the problem; and Positive Reappraisal, describing efforts to gain a positive meaning from the problem situation. The Cronbach alpha coefficients for these eight scales ranged between .61 (Distancing) and .79 (Positive Reappraisal) indicating internal consistency of the measure. Furthermore, the results of the construct validity analysis showed the consistent results with theoretical predictions in terms of coping being a process and consisting of both problem and emotion focused strategies.

The psychometric properties of the Turkish version of WAYS were first examined by Siva (1991). Additional 6 items were included to the measure by Siva addressing Turkish people's tendency to depend on superstitious beliefs and fatalism as a coping ways. Siva came up with 7 factors from the Turkish version of the measure, namely, planned behavior, fatalism, mood regulation, being reserved, acceptance, maturation, and helplessness-seeking help. Following this initial study, various studies have been conducted in different samples with the Turkish version of this measure (e.g., Karancı, Alkan, Akşit, Sucuoğlu, & Balta, 1999; Şahin & Durak, 1995) and all of these studies seemed to conclude different factors for coping styles. Gençöz, Gençöz, and Bozo (2006) conducted a study which aimed to provide higher order coping dimensions in a Turkish university sample. They conducted a factor analysis by using varimax rotation and came up with 3-factor solution (Emotion-Focused Coping, Problem-Focused Coping, and Social Support Seeking: Indirect Coping) with varimax rotation. For reliability analyses, Guttman split-half reliability coefficients were also examined other than internal consistency analysis presented above. The Guttman split-half reliabilities were found as .84, .86, and .82 for Problem-Focused Coping, Emotion-Focused Coping, and Indirect Coping Style, respectively. For validity analyses, the 3-factor solution of the measure showed strong correlations with Sociotropy-Autonomy Scale, State-Trait Anxiety Inventory, Submissive Acts Scale, and Rotter's Internal-External Locus of Control Scale for supporting criterion validity.

4.1.2.4 Social Support Measures

Social support measures of the main study was presented in two parts; Social Support Questionnaire (SSQ), used for the mothers of children with autism from the U.S., and Social Support Question Set, applied to the mothers of children with autism from Turkey.

4.1.2.4.1 Social Support Questionnaire

The Social Support Questionnaire (SSQ), a reliable and valid 27-item half Likert-type self-report measure, was developed by Sarason, Levine, Basham, and Sarason (1983). The responses of this measure range between '1' (very satisfied) and '6' (very dissatisfied). SSQ investigates two aspects of social support which are (1) the number of social support in a person's life and (2) the degree to which they are personally satisfying. The measure provides two different types of scores; SSQ Number Score, indicating the average number of individuals within the person's life as a social support source, and SSQ Satisfaction Score, indicating the level of satisfaction the person gets from available social support sources. An individual who report higher SSQ Number or SSQ Satisfaction Scores is assumed to have higher social support both in quantity (number) and quality (satisfaction).

Sarason et al. (1983) have conducted series of studies in order to assess psychometric properties of the SSQ. Reliability studies showed high internal consistency among items with alpha coefficient of .97 and .94 for number and satisfaction scores, respectively. In addition, test-retest correlations were examined with 4-week interval and resulted in the alpha coefficients of .90 and

.83 for number and satisfaction scores, respectively. For validity analyses, series of studies were also conducted to examine convergent validity of SSQ as a support for construct validity. These analyses showed that SSQ scores were highly related to the experience of anxiety, depression, and hostility. As a conclusion, SSQ is found to be a reliable and valid instrument and the concept of social support seem to be strongly related to positive and negative life events, related in a negative direction to psychological distress among women than men, and seem to function buffer against stress (Sarason et al., 1983).

4.1.2.4.2 Social Support Question Set

For assessing social support level for the Turkish part of the study, the Social Support Question Set was developed by the researcher. This measure included questions measuring satisfaction level of received social support and primarily focuses on the parents of children with autism. The developed question set has both informative questions assessing specific social support resources (e.g., "When you need to go out alone, do you get support from your spouse to take care of your child with autism?", "When you need/want to spend some time alone, whom do you get support to take care of your child with autism?") and Likert-type questions assessing satisfaction level for each given social support source (e.g., "How satisfied you feel from this support?").

4.1.2.5 Flexibility and Cohesion Evaluation Scales – Fourth Edition (FACES – IV)

Flexibility and Cohesion Evaluation Scales IV is a reliable and valid 62-item self-report instrument, developed by Olson et al. (2004). The measure can be applied to all family members over 12 years of age in order to assess the health of the family unit based on the two family functioning dimensions of cohesion and flexibility. Detailed information of Flexibility and Cohesion Evaluation Scales IV (FACES IV; Olson et al., 2004) is presented in Study 1 (see Chapter 3, p. 68).

Turkish adaptation study of this measure was conducted by the researcher (see Study 1, Chapter 3). Internal consistency and split half reliability analyses were conducted for evaluating the reliability of the Turkish version of the FACES IV. The Cronbach alpha coefficients for internal consistency were found as .82, .81, .80, .70, .76, and .69 for Cohesion, Flexibility, Disengagement, Enmeshed, Rigid, and Chaotic subscales, respectively. Moreover for FACES IV additional scales of Family Communication and Family Satisfaction subscales, internal consistency coefficients were found as .92 and .91, respectively. In addition, Spearman-Brown split half reliability coefficients were calculated for balanced, unbalanced, and additional subscales of FACES IV and coefficients were found as .79, .76, .77, .70, .73, .51, .91, and .91 (Spearman-Brown split half reliability coefficients) for Cohesion, Flexibility, Disengaged, Enmeshed, Rigid, Chaotic, Family Communication, and Family Satisfaction subscales,

respectively. For validity analyses of the Turkish version of FACES IV construct and convergent validities were evaluated. According to construct validity analysis, significant intercorrelations among FACES IV subscale were found. Moreover, convergent validity of the Turkish version of FACES IV was assessed by examining the correlations between balanced, unbalanced and additional subscales of FACES IV and general functioning subscale of MMFAD. As a satisfactory indication of convergent validity, subscales of FACES IV were found to have strong correlations with the general functioning subscale of MMFAD. Details of psychometric studies of the Turkish version of FACES IV can be found in Study 1 (see Study 1 in Chapter 3, pp. 68).

4.1.3 Procedure

Prior to the data recruitment procedure, a set of participation criteria was determined for both groups of mothers (Turkey and the U.S.) in accordance with the aims and research questions of the main study. According to these criteria, families who have a child between the ages of 2 to 7 years with a diagnosis of autism could participate in this study and only the mothers of children with autism should complete the questionnaires. At last, both parents should be willing to share information regarding their child and family with the researcher. Apart from these criteria, in order to reach the most representative mother group from the U.S., the criterion of being at least the second generation U.S. citizenship was set for the participants from the U.S.

The data recruitment procedure for the present study is presented in terms of sampling groups; the mothers of children with autism from Turkey and the mothers of children with autism from the U.S.

Mothers of children with autism from Turkey: The mothers of children with autism from Turkey were reached through associations/foundations for children with autism and special education centers within Ankara (i.e., İlgi Otistik Çocukları Koruma Derneği, Ankara Otistik Bireyler Derneği, Özel Uyum Özel Eğitim Okulu, Artı Özel Eğitim ve Rehabilitasyon Merkezi) and İstanbul (i.e., Tohum Otizm Vakfı) region. All of these data sources were attained according to their reliable diagnosis records in the cities of Ankara and İstanbul. The participant children were selected among those who have diagnosed by Child Psychiatry Departments of the University and State Hospitals which commonly apply standart diagnostic assessment procedure. After accepting to participate in the study, the mothers were asked to engage in the following activities:

(1) Read the informed consent and if accepting to participate, sign the informed consent form (**Appendix M**), (2) Respond the questionnaire set at the center or at home which one was convenient to them, and (3) Return the questionnaire set either directly to the researcher or to the contact point (center/foundation/contact person of the association).

Mothers of children with autism from the U.S.: The mothers of children with autism from the U.S. were reached via e-mail through developmental disabilities centers (e.g., The New Jersey Center for Outreach and Services for

the Autism Community, Autism Society of America Chapters, Autism Society of Colorado, Autism Speaks) all over the United States of America and through web-based autism research network (i.e., Interactive Autism Network Community). In order to ensure the children's diagnosis of autism, two important criteria were taken into account. First, the most nation-wide and reliable developmental disabilities centers were selected to be able to reach the target sample. Second, the brief recruitment flyer (**Appendix L**) was designed to inform possible sample group by the aims and certain participation criteria of the study. After accepting to participate in the study, they were asked to engage in the following activities:

(1) Read the informed consent and if accepting to participate, sign the informed consent form (**Appendix N**); (2) Respond to the set of questionnaire received via mail; and (3) Return the questionnaire set to the principal investigator in the self addressed stamped envelope.

Both groups of mothers received the number of five questionnaires. Prior to disseminating the questionnaire sets, the main study measures of the study were counterbalanced in order. It took approximately one hour for each participant to complete the questionnaires. For the Turkey part of the study, 75 set of questionnaires were distributed to the mothers of children with autism who met the study's participant criteria. 43 completed questionnaire sets were returned. On the other hand for the U.S. part of the study 125 data packages were distributed to the mothers of children with autism who met the study's participant criteria. 50 of the data packages were completed and returned to the

researcher. Overall, return rate for Turkey sample was 57.33 % for the participants from Turkey and 40.00 % for the participants from the U.S.

4.1.4 Statistical Analyses for the Main Study

Statistical analyses were conducted by using the Statistical Package for Social Sciences Program (SPSS; Nie, Hull, Jenkins, Steinbrenner, & Bent, 1975). Prior to the main analyses, data were screened for accuracy of data entry, missing values, and for detecting univatiate and multivariate outliers. According to missing value analyses, none of the cases were found to include missing values more than 5 %. Therefore, all of the cases, entered into the statistical program for analyses, were included to the statistical analyses of the current study and missing values were substituted by the mean value of the specific variable, calculated in accordance with the country of origin. Moreover all of the cases were examined for outliers and none of the cases were found to have univariate and multivariate outliers so that none of the cases were excluded from the present study. However, for Turkey sample, data packages of two cases were completed by father instead of the mother of the child with autism and data package of one case included incomplete questionnaires. These cases were eliminated. Data packages of two cases from the U.S. sample were also eliminated for similar reasons; one was incomplete and one had a child not diagnosed yet.

In accordance with the research questions of the present study, two statistical analyses methods were formulated. In order to test the research questions of comparison related to parenting stress, coping, and family

functioning variables between mothers of children with autism from Turkey and from the U.S., a series of Multivariance Analyses of Covariance (MANCOVA) were conducted. Besides, in order to test the research questions of predictors related to family cohesion and flexibility for mothers of children with autism from Turkey and from the U.S., a series of Hierarchical Multiple Regression Analyses were formulated and conducted.

CHAPTER 5

RESULTS

The statistical analyses conducted for the present study are presented in three sections. First of all, descriptive statistics of the study measures were conducted and presented. In the second section, comparison studies in order to identify the differences between Turkey and the U.S. samples on parenting stress variables (i.e., parental distress, parent-child dysfunctional interaction, and difficult child), coping ways variables (i.e., problem focused coping, emotion focused coping, and indirect coping), and family functioning variables (i.e., cohesion, flexibility, disengagement, enmeshment, rigidity, and chaotic) were conducted by separate sets of Multivariate Analyses of Covariance (MANCOVA) and presented. For this section, the correlations among study variables were presented for the whole sample. At last, the predictors of cohesion, flexibility, and total circumplex ratios were examined through three hierarchical multiple regression analyses conducted separately by country of origin. Apart from the correlation coefficients for the whole sample presented in the previous section, the Pearson correlation coefficients were also presented by each sample group in this section. The results of the hierarchical multiple regression analyses were presented first for Turkey sample, followed by the results for the U.S. sample.

5.1 Descriptive Statistics of the Study Variables

Table 5 presents the means and standard deviations of the study measures used in this present study with the scale values and the application values.

Table 5. Descriptive Statistics of the Study Variables

			Whole Sample (N = 88)		Turkey (N = 40)		United States (N = 48)
	Scale Values (Min – Max)	Application Values (Min – Max)	M (SD)	Application Values (Min – Max)	M (SD)	Application Values (Min – Max)	M (SD)
Parenting Stress Variables							
Parental Distress	12 – 60	14 – 57	34.35 (9.74)	17 – 57	36.70 (9.98)	14 – 54	32.40 (9.19)
Parent-Child Dysfunctional Interaction	12 – 60	14 – 56	28.17 (8.86)	14 – 56	28.74 (9.39)	15 – 48	27.69 (8.46)
Difficult Child	12 – 60	20 – 58	38.26 (8.37)	20 – 58	36.59 (7.75)	20 – 56	39.65 (8.68)
Total Stress Score	36 - 180	55 – 163	100.78 (21.74)	60 – 163	102.03 (22.26)	55 - 153	99.73 (21.48)
Coping Ways Variables							
Problem Focused Coping	1 – 5	1.46 – 4.66	3.09 (0.63)	2.48 – 4.66	3.29 (0.41)	1.46 – 4.48	2.91 (0.73)
Emotion Focused Coping	1 – 5	1.29 – 3.42	2.43 (0.43)	1.86 – 3.41	2.47 (0.35)	1.29 – 3.42	2.40 (0.49)
Indirect Coping	1 – 5	1.46 – 5.00	3.12 (7.25)	2.42 – 3.92	3.11 (0.37)	1.46 – 5.00	3.13 (0.92)
Social Support Variables							
Social Support Measures (TR)	12 – 60	—	—	18 – 57	39.10 (9.33)	—	—
Social Support Measures (US)	1 – 6	—	—	—	—	1.85 – 6.00	5.05 (0.96)
Family Functioning Variables							
Cohesion	7 – 35	9 – 35	27.65 (5.42)	12 – 35	26.25 (5.23)	9 – 35	28.81 (5.35)
Flexibility	7 – 35	7 – 34	20.21 (5.30)	9 – 34	22.06 (5.47)	7 – 31	18.67 (4.66)
Disengagement	7 – 35	7 – 24	11.30 (4.13)	7 – 22	13.01 (3.95)	7 – 24	9.88 (3.76)
Enmeshment	7 – 35	7 – 26	14.28 (4.21)	9 – 26	16.56 (3.38)	7 – 25	12.38 (3.89)
Rigidity	7 – 35	7 – 26	14.13 (3.88)	7 – 23	14.06 (3.71)	7 – 26	14.19 (4.04)
Chaotic	7 – 35	7 – 25	13.11 (4.60)	7 – 25	14.66 (4.74)	7 – 22	11.81 (4.09)
Cohesion Ratio	0 – 5	0.51 – 4.67	2.36 (0.90)	0.73 – 3.50	1.84 (0.57)	0.51 – 4.67	2.79 (0.90)
Flexibility Ratio	0 – 5	0.53 – 3.40	1.56 (0.57)	0.53 – 3.40	1.64 (0.62)	0.58 – 2.82	1.50 (0.51)
Total Circumplex Ratio	0 – 5	0.54 – 3.28	1.90 (0.58)	0.68 – 3.28	1.73 (0.54)	0.54 – 3.28	2.05 (0.57)

5.2 Comparison of Two Groups of Children (Turkey and the United States) on Variables Related to Parenting Stress, Coping Strategies, and Family Functioning

Some of the child and family related demographic variables were expected to be covariate of the comparison analyses of two groups of children (Turkey and the U.S.). Age of the mother and father and SES level were expected to be covariates. Thus, the correlations between demographic variables and variables related to Parenting Stress, Coping Strategies, and Family Functioning were first investigated in order to detect covariate variables. According to this analysis, only the demographic variables with the correlation coefficient higher than .25 were assigned as a covariate for the related comparison analysis.

5.2.1 Correlations among Variables Used in the Comparison Analyses

Pearson correlation coefficients among study variables and demographic variables used in the comparison analyses, namely, parental distress, parent-child dysfunctional interaction, difficult child, problem-focused coping, emotion-focused coping, indirect coping, cohesion, flexibility, disengagement, enmeshment, rigidity, and chaotic are given in the Table 6.

Table 6. Pearson Correlation Coefficients of Parenting Stress, Coping, Family Functioning, and Demographic Variables for the Whole Sample (N = 88)

	2	3	4	5	6	7	8	9	10	11	12	13
1. Child's gender (1 = female, 2 = male)	.04	.19	-.08	-.07	-.07	.02	-.05	.01	-.03	.09	-.14	-.13
2. Child's age		.25	.26*	.01	.11	-.11	.34**	.22*	.17	.11	.29**	.24*
3. Child's diagnosis age			-.09	.10	-.21*	.17	-.01	-.04	.06	-.09	-.06	-.10
4. Mother's age				.30**	.80**	.16	.13	.03	.25*	-.11	.00	.07
5. Mother's education					.19	.65**	.12	.03	.44**	-.36**	-.22*	.04
6. Father's age						.13	.16	.06	.17	-.11	.05	.10
7. Father's education							.12	.11	.40**	-.38**	.31**	.05
8. Total number of children								.89**	.25*	-.19	.03	.15
9. Total number of household members									.29**	-.18	.09	.13
10. SES										-.38**	-.13	.11
11. Parental distress											.55**	.32**
12. Parent-Child Dysfunctional Interaction												.56**
13. Difficult child												

*$\underline{p}$ < .05; **$\underline{p}$ < .01

Table 6. Continued

	14	15	16	17	18	19	20	21	22
1. Child's gender (1 = female, 2 = male)	.16	.07	.14	-.06	.02	.12	-.23*	.08	.04
2. Child's age	-.18	.13	-.11	.21	-.07	-.29**	-.24*	-.05	-.06
3. Child's diagnosis age	.03	-.05	.09	-.03	.09	-.25*	-.18	.01	.04
4. Mother's age	-.11	-.06	.02	-.13	-.18	.09	-.18	.16	-.20
5. Mother's education	.04	-.19	.08	.17	-.07	-.35**	-.28**	-.01	-.31**
6. Father's age	-.06	-.10	-.01	-.08	-.10	.15	-.05	.12	-.15
7. Father's education	.00	-.37**	-.12	. 13	. 03	-.16	-.15	.12	-.15
8. Total number of children	-.06	-.05	-.03	.33**	.11	-.30**	-.20	.24*	-.15
9. Total number of household members	.01	-.07	-.03	.27*	.18	-.12	-.05	.29**	.01
10. SES	-.15	-.23*	-.15	.08	-.19	-.17	-.24*	.18	-.19
11. Parental distress	-.16	.13	-.15	-.36**	-.17	.35**	.27**	-.16	.32**
12. Parent-Child Dysfunctional Interaction	-.02	.20	-.07	-.18	-.08	.31**	.27*	.03	.33**
13. Difficult child	.02	.18	-.05	.00	-.13	.13	.08	.06	.09
14. Problem focused coping		.36**	.56**	.30**	.54**	-.10	.13	.15	-.14
15. Emotion focused coping			.26*	.20	.26*	-.02	.13	.02	.03
16. Indirect coping				.14	.25*	-.13	-.23**	-.09	-.22*
17. Cohesion					.56**	-.64**	-.09	.15	-.23*
18. Flexibility						-.31**	-.26*	.08	-.19
19. Disengagement							.30**	.02	.47**
20. Enmeshment								.20	.30**
21. Rigidity									-.02
22. Chaotic									

*$\underline{p}$ < .05; **$\underline{p}$ < .01

Parental stress had a significant negative correlation with the demographc variables of mother's education level (r = -.36, p < .01), father's educational level (r = -.38, p < .01), and socioeconomic status (r = -.38, p < .01). While parental stress variable had also negatively correlated to family functioning variable of cohesion (r = -.36, p < .01), it had significant positive correlation with parenting stress variables of parent-child dysfunctional interaction (r = .55, p < .01), and difficult child (r = .32, p < .01), and with family functioning variables of disengagement (r = .35, p < .01), enmeshment (r = .27, p < .01) and chaotic (r = .32, p < .01). Parent-child dysfunctional interaction had a significant negative correlation just with mother's education (r = -.22, p < .05). The same variable was also positively correlated with the demographic variables of child's age (r = .29, p < .01) and father's education (r = .31, p < .01). Moreover, parent-child dysfunctional interaction was positively correlated with the family functioning variables of disengagement (r = .31, p < .01), enmeshment (r = .27, p < .05), and chaotic (r = .33, p < .01). Difficult child variable was only related to child's age among demographic variables, with a positive correlation of r = .24, p < .05. Problem focused coping has a significant positive correlation with emotion focused coping (r = .36, p < .01), indirect coping (r = .56, p < .01), cohesion (r = .30, p < .01), and flexibility (r = .54, p < .01). Moreover, emotion focused coping was significantly related to indirect coping and flexibility with a positive correlations of r = .26, p < .05 and r = .26, p < .05, respectively. While cohesion was positively correlated to flexibility at r = .56, p < .01, the same

variable was negatively correlated to disengagement and chaotic, at r = -.64, p < .01 and r = -.23, p < .05, respectively. Furthermore, flexibility variable had a significant negative correlation with both rigidity and enmeshment, at r = -.31, p < .01 and r = -.26, p < .05, respectively. Finally, disengagement had a significant positive correlation with enmeshment (r = .30, p < .01) and chaotic (r = .47, p < .01) variables and enmeshment had a significant correlation with chaotic (r = .30, p < .01).

5.2.2 Comparison of Two Groups of Mothers (Turkey and the United States) on Parenting Stress Variables

A one-way between subjects multivariate analysis of covariance (MANCOVA) was conducted in order to assess the group differences by the country of origin (Turkey vs. the U.S.) on variables related to parenting stress. The subscale scores of Parenting Stress Index/Short Form (PSI/SF) were taken as the dependent variables (Parental Distress, Parent-Child Dysfunctional Interaction, and Difficult Child), Child's Age, Mother's Education Level, and Father's Education Level were assigned as the covariates, and the Country of Origin (Turkey and the U.S.) was taken as the independent variables. The means and standard deviations for parenting stress variables are listed in Table 7.

Table 7. Multivariate Analyses of Covariance (Means and Standard Deviations for Parenting Stress Variables by Country of Origin)

Parenting Stress	Turkey		United States		Difference by Country of Origin	Effect Size
	Mean	SD	Mean	SD	F (1, 86)	partial η^2
Parental Distress	36.70	9.98	32.40	9.19	3.37	.04
Parent – Child Dysfunctional Interaction	28.74	9.39	27.69	8.46	2.07	.02
Difficult Child	36.59	7.75	39.65	8.68	.61	.01

MANCOVA results indicated a significant group (Country of Origin) main effect, Wilks' Lambda = .90, Multivariate $\underline{F}$ (3, 81) = 2.92, $\underline{p} < .05$, partial $\eta^2 = .10$. The significance level for the univariate analyses was set as .016 with Benferroni correction and univariate analyses did not indicate any significant main effect for Country of Origin on Parental Distress, Parent-Child Dysfunctional Interaction, and Difficult Child. This means that the combination of the subscales of Parental Distress, Parent-Child Dysfunctional Interaction, and Difficult Child may result a significant group (Country of Origin) main effect.

5.2.3 Comparison of Two Groups of Mothers (Turkey and the United States) on Coping Strategies Variables

A one-way between subjects multivariate analysis of covariance (MANCOVA) was conducted in order to assess the group differences by the country of origin (Turkey vs. the U.S.) on variables related to coping strategies. The subscale scores of Ways of Coping Questionnaire (WAYS) were taken as the dependent variables (Problem Focused Coping, Emotion Focused Coping,

and Indirect Coping), Father's Education level was assigned as the covariate, and the Country of Origin (Turkey and the U.S.) was taken as the independent variables. The means and standard deviations for variables related to coping strategies are listed in Table 8.

Table 8. Multivariate Analyses of Covariance (Means and Standard Deviations for Coping Strategies Variables by Country of Origin)

Coping Strategies	Turkey		United States		Difference by Country of Origin	Effect Size
	Mean	SD	Mean	SD	F (1, 86)	partial η^2
Problem Focused Coping	3.29	.41	2.91	.73	8.44**	.09
Emotion Focused Coping	2.47	.35	2.40	.49	.09	.00
Indirect Coping	3.11	.37	3.13	.92	.06	.00

** $\underline{p} < .016$

MANCOVA results indicated a significant group (Country of Origin) main effect, Wilks' Lambda = .85, Multivariate $\underline{F}$ (3, 83) = 5.04, $\underline{p} < .01$, partial $\eta^2 = .15$. The significance level for the univariate analyses was set as .016 with Benferroni correction and univariate analyses indicated a significant main effect for Country of Origin on Problem Focused Coping, $\underline{F}$ (1, 85) = 8.44, $\underline{p} < .016$, partial $\eta^2 = .10$. Univariate analyses did not indicate any significant main effect for Country of Origin on Emotion Focused and Indirect Coping. According to the MANCOVA results, mothers from Turkey reported to use significantly higher Problem Focused Coping strategies ($\underline{M} = 3.29$) as compared to mothers from the U.S. ($\underline{M} = 2.91$). On the other hand, two groups

(Turkey and the U.S.) did not differentiate significantly on Emotion Focused and Indirect Coping strategies.

5.2.4 Comparison of Two Groups of Mothers (Turkey and the United States) on Family Functioning Variables

A one-way between subjects multivariate analysis of covariance (MANCOVA) was conducted in order to assess the group differences by the country of origin (Turkey vs. the U.S.) on variables related to family functioning. The subscale scores of Flexibility and Cohesion Evaluation Scales – Fourth Edition (FACES IV) were taken as the dependent variables (Cohesion, Flexibility, Disengagement, Enmeshment, Rigidity, and Chaotic), Child's Age, Child's Diagnosis Age, Mother's Education level and Number of Children were assigned as the covariates, and the Country of Origin (Turkey and the U.S.) was taken as the independent variables. The means and standard deviations for variables related to family functioning are listed in Table 9.

Table 9. Multivariate Analyses of Covariance (Means and Standard Deviations for Family Functioning Variables by Country of Origin)

Family Functioning Factors	Turkey		United States		Difference by Country of Origin	Effect Size
	Mean	SD	Mean	SD	F (1, 82)	partial η^2
Cohesion	26.25	5.23	28.81	5.35	.19	.00
Flexibility	22.06	5.47	18.67	4.66	12.51***	.13
Disengagement	13.01	3.95	9.88	3.76	1.74	.02
Enmeshment	16.56	3.38	12.38	3.89	13.80***	.14
Rigidity	14.06	3.72	14.19	4.04	.00	.00
Chaotic	14.66	4.74	11.81	4.09	3.33	.04

***$\underline{p} < .008$

MANCOVA results indicated a significant group (Country of Origin) main effect, Wilks' Lambda = .65, Multivariate F (6, 77) = 6.99, p < .001, partial η^2 = .35. The significance level for the univariate analyses was set as .003 with Benferroni correction Univariate analyses indicated a significant main effect for Country of Origin on Flexibility, F (1, 82) = 12.51, p < .008, partial η^2 = .13, on Enmeshment, F (1, 82) = 13.80, p < .008, partial η^2 = .14. Univariate analyses did not indicate any significant main effect for Country of Origin on Cohesion, Disengagement, Rigidity, and Chaotic. Results indicated that mothers from Turkey reported significantly higher Flexibility and Enmeshment dimensions (Ms = 22.06 and 16.56, respectively) than mothers from the U.S. (Ms = 18.67 and 12.38, respectively). Mothers' report on Cohesion, Disengagement, Rigidity, and Chaotic dimensions did not differentiate significantly between two groups (Turkey and the U.S.).

5.3 Regression Analyses

The variables associated with families' flexibility and cohesion ratios were investigated through separate regression analyses for two sample groups (Turkey and the U.S.). For hierarchical multiple regression analyses dependent variables were set as cohesion, flexibility, and total circumplex ratios. These ratios were formulized in order to assess curvilinearity which the Flexibility and Cohesion Evaluation Scales – Fourth Edition was based on according to the Circumplex Model. These ratio scores that range from zero indicating the most unbalanced system to five indicating the most balanced the family system

provide a way of assessing how healthy versus unhealthy the family system is functioning. The Cohesion Ratio score was calculated by dividing the Cohesion score by the average of the Disengaged and Enmeshed scores, two extreme points of the Cohesion dimension. The Flexibility Ratio was calculated by dividing the Flexibility score by the average of the Rigid and Chaotic scores, two extreme points of the Flexibility dimension. Finally, the Total Circumplex Ratio, which reflects a summary of healthy (balanced) and problematic characteristics of family in a single score, was calculated by dividing the average of the Cohesion and Flexibility scores (balanced scales) by the average of the Disengaged, Enmeshed, Chaotic, and Rigid scores (unbalanced scales). As in Cohesion and Flexibility Ratios, the higher the Total Circumplex Ratio is an indicator of the more balanced family system.

In order to examine predictors of flexibility and cohesion ratios for mothers' of children with autism from Turkey and from the U.S., three separate hierarchical multiple regression analyses were conducted both for Turkey and the U.S. The identical set of variables was used except for child and family related demographics for all of these regression analyses. Various combinations of predictor variables were assembled and designed while formulating these regression analyses prior to finalize regression analyses in order to reach the most reliable and robust results in spite of the relatively small sample size of the study. According to the detailed preliminary trials, the regression equations with optimum combinations of variables were attained. These regression analyses are presented separately as follows.

5.3.1 Predictors of Cohesion, Flexibility, and Total Circumplex Ratios for Turkey

As indicated before, the identical set of predictor variables was used both for Turkey and the U.S. samples except for child and family related demographics. The demographics for Turkey sample were set according to Pearson correlation coefficients, details of which are given in the next section (see Table 11. Correlations among Variables Used in Regression Analyses for Turkey, p. 130). For Turkey sample, child related demographic variables, namely child's age and child's diagnosis age, were entered into the regression equation on the first step, followed by family related demographic variables, namely mother's age, mother's educational level, and father's educational level, on the second step. On the third step, parental stress related variables, namely parental distress, parent-child dysfunctional interaction, and difficult child were entered. Variables related to coping strategies, namely problem focused coping, emotion focused coping, and indirect coping were entered into the regression equation on the fourth step. Finally, social support variable was entered into the regression equation as the final and fifth step. All of these steps except the first step were placed into the regression equation via stepwise method. Entry order of the predictor variables for Turkey sample are presented in Table 10.

Table 10. Set of Variables Entered into the Hierarchical Multiple Regression Equation for Cohesion, Flexibility, and Total Circumplex Ratios for Turkey

Block	Predictor Variables	Method
1	**Child-related Demographic Variables** Child's age Child's diagnosis age	**Enter**
2	**Family-related Demographic Variables** Mother's age Mother's educational level Father's educational level	**Stepwise**
3	**Maternal Stress Related Variables** Parental distress Parent-child dysfunctional interaction Difficult child	**Stepwise**
4	**Coping Strategies Related Variables** Problem focused coping Emotion focused coping Indirect coping	**Stepwise**
5	**Social Support Related Variables** Social support (TR)	**Stepwise**

5.3.1.1 Correlations among Variables Used in Regression Analyses for Turkey

The Pearson correlation coefficients between predictor and dependent variables for Turkey sample are given in

Table 11. While child's age was significantly related to parental distress ($\underline{r} = .40$, $\underline{p} < .01$), parent-child dysfunctional interaction ($\underline{r} = .45$, $\underline{p} < .01$), and emotion focused coping

($\underline{r}$ = .54, $\underline{p}$ < .01) positively, mother's age was positively related just to rigidity ($\underline{r}$ = .39, $\underline{p}$ < .05) for Turkey sample. Furthermore, mother's education level was positively related to problem focused coping ($\underline{r}$ = .35, $\underline{p}$ < .05) and negatively related to parental distress ($\underline{r}$ = -.48, $\underline{p}$ < .01), parent-child dysfunctional interaction ($\underline{r}$ = -.44, $\underline{p}$ < .01), emotion focused coping ($\underline{r}$ = -.42, $\underline{p}$ < .01), and disengagement ($\underline{r}$ = -.36, $\underline{p}$ < .05) for Turkey sample. Finally, father's education level had a significant positive relationship with problem focused coping ($\underline{r}$ = .35, $\underline{p}$ < .05) and negative relationships with parental distress ($\underline{r}$ = -.48, $\underline{p}$ < .01), parent-child dysfunctional interaction ($\underline{r}$ = -.44, $\underline{p}$ < .01), and emotion focused coping ($\underline{r}$ = -.42, $\underline{p}$ < .01).

When it comes to the correlations between dependent variables and predictor variables, dependent variable of cohesion ratio had a significant negative relationship with parent-child dysfunctional interaction ($\underline{r}$ = -.32, $\underline{p}$ < .05) and positive relationships with problem focused coping ($\underline{r}$ = .45, $\underline{p}$ < .01) and social support ($\underline{r}$ = .56, $\underline{p}$ < .01) for Turkey sample. Flexibility ratio, as another dependent variable, was only related to problem focused coping ($\underline{r}$ = .41, $\underline{p}$ < .01), positively for mothers from Turkey. Finally, dependent variable of total circumplex ratio was positively related to problem focused coping ($\underline{r}$ = .47, $\underline{p}$ < .01) and social support ($\underline{r}$ = .45, $\underline{p}$ < .01) for Turkey sample.

Table 11. Pearson correlation coefficients of Parental Stress Variables, Coping Ways, Social Support, Family Functioning Variables, and Demographic Variables for Turkey (N = 40)

	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Child's gender (1 = female, 2 = male)	.02	.20	-.18	-.01	.02	.02	.02	.10	-.15	.04	.03	.14	.08	-.10	.22
2. Child's age		.21	.16	-.34*	.09	-.36*	.18	.05	-.08	.40**	.45**	.25	-.06	.54**	.10
3. Child's diagnosis age			-.02	.20	-.15	.20	.05	.04	.02	-.04	.01	-.15	.18	-.14	.21
4. Mother's age				.12	.82**	.22	.36*	.23	.28	-.26	-.12	-.02	-.02	-.04	.11
5. Mother's education					.10	.80**	.16	.04	.47**	-.48**	-.44**	-.22	.35*	-.42**	-.03
6. Father's age						.21	.35*	.15	.25	-.19	-.03	.06	-.00	-.15	.03
7. Father's education							.15	.11	.42**	-.57**	-.57**	-.26	.33*	-.38*	-.12
8. Total # of children								.78**	.24	-.28	-.04	-.09	.23	-.12	.03
9. Total # of household members									.37*	-.28	.02	-.09	.25	-.15	.07
10. SES										-.51**	-.25	-.03	.19	-.11	-.23
11. Parental distress											.61**	.36*	-.44**	.39*	-.15
12. Parent-child dysfunctional interaction												.54**	-.24	.42**	-.01
13. Difficult child													-.40*	.37*	-.22
14. Problem focused coping														-.28	.45**
15. Emotion focused coping															-.13
16. Indirect coping															

*$\underline{p}$ < .05; **$\underline{p}$ < .01

Table 11. Continued

	17	18	19	20	21	22	23	24	25	26
1. Child's gender (1 = female, 2 = male)	.03	-.16	-.14	.25	-.12	-.06	.20	-.16	-.14	-.15
2. Child's age	-.14	.16	.07	-.14	.10	.00	.03	.10	.01	.05
3. Child's diagnosis age	-.06	-.20	.01	-.13	-.10	.08	.08	-.08	-.09	-.10
4. Mother's age	-.16	.02	.07	.02	-.14	.39*	-.06	.07	-.07	-.03
5. Mother's education	.23	.08	.07	-.36*	-.17	.05	-.27	.26	.16	.22
6. Father's age	-.12	.09	.14	.05	-.17	.23	-.05	.12	.00	.05
7. Father's education	.18	.21	.15	-.30	-.07	.08	-.15	.23	.16	.22
8. Total # of children	.04	.31	.33*	-.19	-.01	.22	-.24	.28	.23	.27
9. Total # of household members	-.09	.16	.32*	.08	.08	.23	.00	.08	.16	.13
10. SES	-.06	.01	.05	-.02	-.11	.17	-.04	.10	.03	.06
11. Parental distress	-.28	-.17	-.20	.23	.20	-.12	.28	-.30	-.26	-.31
12. Parent-child dysfunc. int.	-.27	-.11	-.06	.29	.26	.06	.28	-.32*	-.23	-.29
13. Difficult child	-.30	-.10	-.20	.30	.05	-.04	.29	-.19	-.24	-.23
14. Problem focused coping	.29	.33*	.40*	-.32*	-.19	-.05	-.24	.45**	.41**	.47**
15. Emotion focused coping	-.05	.10	-.05	.09	.28	.19	.06	-.12	-.16	-.16
16. Indirect coping	.17	-.23	.07	-.20	-.25	-.15	-.19	.05	.20	.14
17. Social Support		.52**	.38*	-.54**	.12	.18	-.19	.56**	.28	.45**
18. Cohesion			.71**	-.49**	.27	.15	-.25	.79**	.54**	.72**
19. Flexibility				-.50**	.33*	.11	-.42**	.60**	.79**	.77**
20. Disengagement					.04	.12	.63**	-.75**	-.60**	-.73**
21. Enmeshment						.39**	.17	-.25	-.03	-.14
22. Rigidity							.27	-.12	-.40*	-.31
23. Chaotic								-.47**	-.74**	-.67**
24. Cohesion ratio									.66**	.90**
25. Flexibility ratio										.92**
26. Total circumplex ratio										

*$\underline{p}$ < .05; **$\underline{p}$ < .01

5.3.1.2 Predictors of Cohesion Ratio for Turkey

In order to assess the predictors of cohesion ratio for mothers of children with autism from Turkey among the child related variables, the family related variables, parenting stress related variables, coping ways related variables, and social support related variable, a hierarchical multiple regression was conducted. Cohesion Ratio was determined as the dependent variable for the analysis. Predictor variables entered into the regression equation in 5 blocks (see Table 10, p. 128). Table 12 presents the results of the hierarchical multiple regression analysis.

The results of the regression analysis indicated that child's age ($\underline{\beta} = .09$, $\underline{t}$ [37] = .52, $\underline{p} > .05$) and child's diagnosis age ($\underline{\beta} = -.09$, $\underline{t}$ [37] = -.56, $\underline{p} > .05$) that entered into the equation in the first block explained 1 % of the total variance ($\underline{F}$ [2, 37] = .24, $\underline{p} > .05$). Among family related demographics, father's education level ($\underline{\beta} = .39$, $\underline{t}$ [36] = 2.30, $\underline{p} < .05$) that entered into the equation in the second block explained 13 % of the total variance ($\underline{F}$ Δ [1, 36] = 5.31, $\underline{p} < .05$). Among variables related to coping, problem focused coping ($\underline{\beta} = .42$, $\underline{t}$ [35] = 2.75, $\underline{p} < .01$) that entered into the equation in the fourth block explained 15 % of the total variance ($\underline{F}$ Δ [1, 35] = 7.56, $\underline{p} < .01$). At last, social support variable ($\underline{\beta} = .43$, $\underline{t}$ [34] = 3.52, $\underline{p} < .001$) that entered into the regression equation on the last step explained 19 % of the total variance ($\underline{F}$ Δ [1, 34] = 12.36, $\underline{p} < .001$). All of the variables totally explained 48 % of the total variance in cohesion ratio reported by mother's of children with autism from Turkey ($\underline{F}$ Δ [5, 34] = 6.31, $\underline{p} < .001$).

Table 12. Predictors of Cohesion Ratio for Turkey

Order of entry of set	Step	Variables	Beta	FΔ	df	t for within set predictors	Model R^2
I. Child demog. and control variables	1			.24	2, 37		.01
		Child's age	.09		37	.52	
		Child's diagnosis age	-.09		37	-.56	
II. Family related variables							
	2	Father's educational level	.39	5.31*	1, 36	2.30*	.14
IV. Coping ways related variables							
	3	Problem focused coping	.42	7.56**	1, 35	2.75**	.29
V. Social Support related variables							
	4	Social Support	.46	12.36***	1, 34	3.52***	.48
		Final Model Values					
		Child's age	.26		34	1.92	
		Child's diagnosis age	-.19		34	-1.45	
		Problem focused coping	.29		34	2.11*	

*p < .05; **p < .01; ***p < .001

According to final model values, this hierarchical multiple regression analysis indicated that problem focused coping style and social support were positively associated with cohesion ratio reported by mothers of children with autism from Turkey. However, over and above family related demographic variables, while father's education level was significant when first entered into the regression equation, after the entrance of the last two significant predictors

of problem focused coping style and social support, this variable did not remain to be significant anymore.

5.3.1.3 Predictors of Flexibility Ratio for Turkey

In order to assess the predictors of flexibility ratio for mothers of children with autism from Turkey among the child related variables, the family related variables, parenting stress related variables, coping ways related variables, and social support related variable, a hierarchical multiple regression was conducted. Flexibility ratio was determined as the dependent variable for the analysis. As in the previous analyses, variables entered into the regression equation in 5 blocks (see Table 10, p. 128). Table 13 presents the results of the hierarchical multiple regression analysis.

The results of the regression analysis indicated that child's age ($\underline{\beta} = .03$, $\underline{t}$ [37] = .17, $\underline{p} > .05$) and child's diagnosis age ($\underline{\beta} = -.10$, $\underline{t}$ [37] = -.57, $\underline{p} > .05$) that entered into the equation in the first block explained 1 % of the total variance ($\underline{F}$ [2, 37] = .17, $\underline{p} > .05$). Among variables related to coping, problem focused coping ($\underline{\beta} = .45$, $\underline{t}$ [36] = 2.94, $\underline{p} < .01$) that entered into the equation in the fourth block explained 19 % of the total variance ($\underline{F}\ \Delta$ [1, 36] = 8.67, $\underline{p} < .01$). All of the variables totally explained 20 % of the total variance in flexibility ratio reported by mother's of children with autism from the Turkey ($\underline{F}\ \Delta$ [3, 36] = 3.02, $\underline{p} < .05$).

Table 13. Predictors of Flexibility Ratio for Turkey

Order of entry of set	Step	Variables	Beta	FΔ	df	t for within set predictors	Model R^2
I. Child demog. and control variables	1			.17	2, 37		.01
		Child's age	.03		37	.17	
		Child's diagnosis age	-.10		37	-.57	
IV. Coping ways related variables							
	2	Problem focused coping	.45	8.67**	1, 36	2.94**	.20
		Final Model Values					
		Child's age	.08		36	.49	
		Child's diagnosis age	-.18		36	-1.19	

**p < .01

According to final model values, this hierarchical multiple regression analysis indicated that problem focused coping style was positively associated with the flexibility ratio reported by mothers of children with autism from Turkey.

5.3.1.4 Predictors of Total Circumplex Ratio for Turkey

In order to assess the predictors of total circumplex ratio for mothers of children with autism from Turkey among the child related variables, the family related variables, parenting stress related variables, coping ways related variables, and social support related variable, a hierarchical multiple regression was conducted. Total circumplex ratio was determined as the dependent variable for the analysis. As detailed information were given previously, variables entered into the regression equation in 5 blocks (see Table 10, p.

128). Table 14 presents the results of the hierarchical multiple regression analysis.

The results of the regression analysis indicated that child's age ($\underline{\beta}$ = .05, $\underline{t}$ [37] = .29, $\underline{p}$ > .05) and child's diagnosis age ($\underline{\beta}$ = -.11, $\underline{t}$ [37] = -.65, $\underline{p}$ > .05) that entered into the equation in the first block explained 1 % of the total variance ($\underline{F}$ [2, 37] = .22, $\underline{p}$ > .05). Among stress related variables, parental distress ($\underline{\beta}$ = -.39, $\underline{t}$ [36] = -2.31, $\underline{p}$ < .05) that entered into the regression equation in the third block explained 13 % of the total variance ($\underline{F}$ Δ [1, 36] = 5.33, $\underline{p}$ < .05). Among variables related to coping, problem focused coping ($\underline{\beta}$ = .44, $\underline{t}$ [35] = 2.68, $\underline{p}$ < .05) that entered into the equation in the fourth block explained 15 % of the total variance ($\underline{F}$ Δ [1, 35] = 7.15, $\underline{p}$ < .05). At last, social support variable ($\underline{\beta}$ = .33, $\underline{t}$ [34] = 2.26, $\underline{p}$ < .05) that entered into the regression equation on the last step explained 9 % of the total variance ($\underline{F}$ Δ [1, 34] = 5.11, $\underline{p}$ < .05). All of the variables totally explained 38 % of the total variance in total circumplex ratio reported by mother's of children with autism from Turkey ($\underline{F}$ Δ [5, 34] = 4.15, $\underline{p}$ < .01).

Table 14. Predictors of Total Circumplex Ratio for Turkey

Order of entry of set	Step	Variables	Beta	FΔ	df	t for within set predictors	Model R^2
I. Child demog. and control variables	1			.22	2, 37		.01
		Child's age	.05		37	.29	
		Child's diagnosis age	-.11		37	-.65	
III. Stress related variables							
	2	Parental distress	-.39	5.33*	1, 36	-2.31*	.14
IV. Coping ways related variables							
	3	Problem focused coping	.44	7.15*	1, 35	2.68*	.29
V. Social Support related variables							
	4	Social Support	.33	5.11*	1, 34	2.26*	.38
		Final Model Values					
		Child's age	.18		34	1.20	
		Child's diagnosis age	-.18		34	-1.29	
		Problem focused coping	.36		34	2.28*	

*$\underline{p} < .05$

According to final model values, this hierarchical multiple regression analysis indicated that problem focused coping style and social support were positively associated with total circumplex ratio reported by mothers of children with autism from Turkey. However, over and above parental stress related variables, while parental distress was significant when first entered into the regression equation, after the entrance of the last two significant predictors

of problem focused coping style and social support, this variable did not remain to be significant anymore.

5.3.2 Predictors of Cohesion, Flexibility, and Total Circumplex Ratios for the United States

The demographics for the U.S. sample were set according to Pearson correlation coefficients (see Correlations among Variables Used in Regression Analyses for the U.S., p. 141). Child related demographic variables, namely child's age and child's gender, were entered into the regression equation on the first step, followed by family related demographic variables, namely mother's age, father's age, and father's educational level for the U.S. sample on the second step. On the third step, parental stress related variables, namely parental distress, parent-child dysfunctional interaction, and difficult child were entered. Variables related to coping strategies, namely problem focused coping, emotion focused coping, and indirect coping were entered into the regression equation on the fourth step. Finally, social support variable was entered into the regression equation as the final and fifth step. All of these steps except the first step were placed into the regression equation via stepwise method. Entry order of the predictor variables are presented in Table 15 for the U.S. sample.

Table 15. Set of Variables Entered into the Hierarchical Multiple Regression Equation for Cohesion, Flexibility, and Total Circumplex Ratios for the United States

Block	Predictor Variables	Method
1	**Child-related Demographic Variables** Child's age Child's gender (1 = female, 2 = male)	**Enter**
2	**Family-related Demographic Variables** Mother's age Father's age Father's educational level	**Stepwise**
3	**Maternal Stress Related Variables** Parental distress Parent-child dysfunctional interaction Difficult child	**Stepwise**
4	**Coping Strategies Related Variables** Problem focused coping Emotion focused coping Indirect coping	**Stepwise**
5	**Social Support Related Variables** Social support (US)	**Stepwise**

5.3.2.1.1 Correlations among Variables Used in Regression Analyses for the United States

The Pearson correlation coefficients for the U.S. are presented in

Table 16. Mother's age variable was positively related to disengagement ($\underline{r}$ = .40, $\underline{p}$ < .01) and negatively related to cohesion ($\underline{r}$ = -.38, $\underline{p}$ < .01) and cohesion ratio ($\underline{r}$ = -.41, $\underline{p}$ < .01) for the U.S. sample. While father's age had a significant positive relationship with disengagement ($\underline{r}$ = .39, $\underline{p}$ < .01), the same variable had a significant negative relationship with the

dependent variable of cohesion ratio (r = -.41, p < .01). Moreover the dependent variable of cohesion ratio was negatively related to parental distress (r = -.46, p < .01) and parent-child dysfunctional interaction (r = -.31, p < .05) and positively related to emotion focused (r = .29, p < .05) and indirect coping (r = .51, p < .01) for the U.S. Flexibility ratio, another dependent variable, had a significant negative relationship with parental distress (r = -.46, p < .01) and parent-child dysfunctional interaction (r = -.31, p < .05) and positive relationship with problem focused coping (r = .49, p < .01), emotion focused coping (r = .41, p < .01), indirect coping (r = .50, p < .01), and social support (r = .41, p < .01). Finally, for the U.S. sample, total circumplex ratio was negatively related to parental distress (r = -.47, p < .01) and parent-child dysfunctional interaction (r = -.37, p < .05) and positively related to problem focused coping (r = .43, p < .01), emotion focused coping (r = .33, p < .05), indirect coping (r = .46, p < .01), and social support (r = .56, p < .01).

Table 16. Pearson correlation coefficients of Parental Stres Variables, Coping Ways, Social Support, Family Functioning Variables, and Demographic Variables for the United States (N = 48)

	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Child's gender (1 = female, 2 = male)	.14	.19	.01	-.09	-.09	.05	-.06	-.04	.13	-.32*	-.28	-.38**	.18	.15	.12
2. Child's age		.27	.13	-.02	-.04	-.01	.27	.26	-.04	.06	.25	.13	-.06	-.06	-.25
3. Child's diagnosis age			-.18	-.04	-.29*	.14	-.09	-.13	.01	-.10	-.10	-.10	.10	.01	.06
4. Mother's age				.29*	.79**	.05	-.16	-.21	-.10	.11	.13	.03	-.01	-.03	-.01
5. Mother's education					.14	.46**	-.17	-.15	.11	-.10	.05	.14	.10	.02	.15
6. Father's age						.04	-.01	-.05	-.04	.02	.13	.06	.01	-.05	-.02
7. Father's education							.02	.07	.33*	-.13	-.14	.27	-.11	-.38**	-.14
8. Total # of children								.96**	-.00	-.02	.13	.20	-.02	.03	-.06
9. Total # of household members									.10	-.03	.17	.23	.00	.00	-.07
10. SES										-.13	.02	.08	-.12	-.30*	-.20
11. Parental distress											.49**	.39**	-.16	-.06	-.17
12. Parent-child dysfunctional interaction												.63**	.06	.06	-.10
13. Difficult child													.27	.10	-.01
14. Problem focused coping														.57**	.62**
15. Emotion focused coping															.37**
16. Indirect coping															

*p < .05; **p < .01

Table 16. Continued

	17	18	19	20	21	22	23	24	25	26
1. Child's gender (1 = female, 2 = male)	.21	.04	.13	-.02	-.42**	.18	-.13	.15	.09	.12
2. Child's age	-.08	.08	.11	-.15	-.13	-.12	.17	.16	.05	.11
3. Child's diagnosis age	-.15	.06	.22	-.32*	-.19	-.04	.07	.19	.19	.19
4. Mother's age	-.21	-.38**	-.22	.40**	.04	.02	-.17	-.41**	-.09	-.28
5. Mother's education	-.04	.09	.06	-.10	-.04	-.08	-.14	.10	.16	.17
6. Father's age	-.16	-.26	-.14	.39**	.18	.07	-.10	-.39**	-.08	-.26
7. Father's education	-.05	.00	.01	.08	-.11	.16	-.06	.01	-.05	-.02
8. Total # of children	.09	.25	.19	-.20	-.05	.27	.10	.27	-.05	.11
9. Total # of household members	.11	.28	.20	-.15	.04	.33*	.15	.22	-.10	.05
10. SES	.10	-.09	-.15	.07	.11	.23	-.06	-.11	-.22	-.20
11. Parental distress	-.45**	-.45**	-.33*	.36*	.19	-.10	.28	-.46**	-.36*	-.47**
12. Parent-child dysfunc. int.	-.49**	-.23	-.15	.33*	.30*	.01	.38**	-.31*	-.30*	-.37*
13. Difficult child	-.16	.00	.03	.15	.30*	.13	.05	-.15	-.07	-.14
14. Problem focused coping	.38**	.44**	.59**	-.22	.04	.26	-.30*	.27	.49**	.43**
15. Emotion focused coping	.21	.30*	.46**	-.14	.01	-.07	-.03	.19	.41**	.33*
16. Indirect coping	.20	.27	.40**	-.14	-.27	-.08	-.28	.29*	.50**	.46**
17. Social Support		.63**	.41**	-.49**	-.16	.13	-.38**	.51**	.41**	.56**
18. Cohesion			.68**	-.71**	-.13	.16	-.11	.80**	.48**	.76**
19. Flexibility				-.49**	-.06	.06	-.20	.56**	.82**	.77**
20. Disengagement					.21	-.05	.17	-.76**	-.42**	-.70**
21. Enmeshment						.14	.18	-.57**	-.18	-.43**
22. Rigidity							-.27	.06	-.29*	-.16
23. Chaotic								-.20	-.49**	-.41**
24. Cohesion ratio									.47**	.89**
25. Flexibility ratio										.85**
26. Total circumplex ratio										

*$\underline{p}$ < .05; **$\underline{p}$ < .01

5.3.2.1.2 Predictors of Cohesion Ratio for the United States

In order to assess the predictors of cohesion ratio for mothers of children with autism from the U.S. among the child related variables, the family related variables, parenting stress related variables, coping ways related variables, and social support related variable, a hierarchical multiple regression was conducted. Cohesion Ratio was determined as the dependent variable for the analysis. As detailed information were given previously, variables entered into the regression equation in 5 blocks similar to the previous analysis (see Table 15, p. 139). The results of the hierarchical multiple regression analysis are presented in Table 17.

The results of the regression analysis indicated that child's age ($\underline{\beta} = .16$, $\underline{t}$ [44] = 1.07, $\underline{p} > .05$) and child's gender ($\underline{\beta} = .13$, $\underline{t}$ [44] = .85, $\underline{p} > .05$) that entered into the equation in the first block explained 5 % of the total variance ($\underline{F}$ [2, 44] = 1.09, $\underline{p} > .05$). Among family related demographics, mother's age ($\underline{\beta} = -.43$, $\underline{t}$ [43] = -3.19, $\underline{p} < .01$) that entered into the equation in the second block explained 18 % of the total variance ($\underline{F}\ \Delta$ [1, 43] = 10.17, $\underline{p} < .01$). Stress related variable of parental distress ($\underline{\beta} = -.44$, $\underline{t}$ [42] = -3.40, $\underline{p} < .001$) that entered into the regression equation in the third block explained 17 % of the total variance ($\underline{F}\ \Delta$ [1, 42] = 11.56, $\underline{p} < .001$). Among variables related to coping, indirect coping ($\underline{\beta} = .31$, $\underline{t}$ [41] = 2.62, $\underline{p} < .05$) that entered into the equation in the fourth block explained 8 % of the total variance ($\underline{F}\ \Delta$ [1, 41] = 6.88, $\underline{p} < .05$). At last, social support variable ($\underline{\beta} = .29$, $\underline{t}$ [40] = 2.36, $\underline{p} < .05$) that entered into the regression equation on the last step

explained 7 % of the total variance (F Δ [1, 40] = 5.57, p < .05). All of the variables totally explained 55 % of the total variance in cohesion ratio reported by mother's of children with autism from the U.S. (F Δ [6, 40] = 8.01, p < .001).

Table 17. Predictors of Cohesion Ratio for the United States

Order of entry of set	Step	Variables	Beta	FΔ	df	t for within set predictors	Model R^2
I. Child demog. and control variables	1			1.09	2, 44		.05
		Child's age	.16		44	1.07	
		Child's gender (1 = female, 2 = male)	.13		44	.85	
II. Family related variables							
	2	Mother's age	-.43	10.17**	1, 43	-3.19**	.23
III. Stress related variables							
	3	Parental distress	-.44	11.56***	1, 42	-3.40***	.40
IV. Coping ways related variables							
	4	Indirect coping	.31	6.88*	1, 41	2.62*	.48
V. Social Support related variables							
	5	Social Support	.29	5.57*	1, 40	2.36*	.55
		Final Model Values					
		Child's age	.32		40	2.88**	
		Child's gender	-.08		40	-.66	
		Mother's age	-.35		40	-3.16**	
		Parental distress	-.28		40	-2.23*	
		Indirect coping	.28		40	2.36*	

*p < .05; **p < .01; ***p < .001

According to final model values, this hierarchical multiple regression analysis indicated that child's age, indirect coping style, and social support were positively and mother's age and parental distress were negatively associated with cohesion ratio reported by mothers of children with autism from the U.S.

5.3.2.1.3 Predictors of Flexibility Ratio for the United States

In order to assess the predictors of flexibility ratio for mothers of children with autism from the U.S. among the child related variables, the family related variables, parenting stress related variables, coping ways related variables, and social support related variable, a hierarchical multiple regression was conducted. Flexibility ratio was determined as the dependent variable for the analysis. As detailed information were given previously, variables entered into the regression equation in 5 blocks similar to the previous analysis (see Table 15, p. 139). The results of the hierarchical multiple regression analysis are presented in Table 18.

The results of the regression analysis indicated that child's age ($\underline{\beta} = .02$, $\underline{t}$ [44] = .13, $\underline{p} > .05$) and child's gender ($\underline{\beta} = .10$, $\underline{t}$ [44] = .66, $\underline{p} > .05$) that entered into the equation in the first block explained 1 % of the total variance ($\underline{F}$ [2, 44] = .24, $\underline{p} > .05$). Among stress related variables, parental distress ($\underline{\beta} = -.36$, $\underline{t}$ [43] = -2.38, $\underline{p} < .05$) that entered into the regression equation in the third block explained 12 % of the total variance ($\underline{F}\ \Delta$ [1, 43] = 5.68, $\underline{p} < .05$). Among variables related to coping entered into the equation in the fourth block, indirect coping ($\underline{\beta} = .56$, $\underline{t}$ [42] = 4.49, $\underline{p} < .001$) and emotion focused

coping (β = .31, t [41] = 2.58, p < .05) were significantly associated with flexibility ratio explaining 28 % (F Δ [1, 42] = 20.15, p < .001) and 8 % (F Δ [1, 41] = 6.64, p < .05) of the total variance, respectively. All of the variables totally explained 49 % of the total variance in flexibility ratio reported by mother's of children with autism from the U.S. (F Δ [5, 41] = 7.94, p < .001).

Table 18. Predictors of Flexibility Ratio for the United States

Order of entry of set	Step	Variables	Beta	FΔ	df	t for within set predictors	Model R^2
I. Child demog. and control variables	1			.24	2, 44		.01
		Child's age	.02		44	.13	
		Child's gender (1 = female, 2 = male)	.10		44	.66	
III. Stress related variables							
	2	Parental distress	-.36	5.68*	1, 43	-2.38*	.13
IV. Coping ways related variables							
	3	Indirect coping	.56	20.15***	1, 42	4.49***	.41
	4	Emotion focused coping	.31	6.64*	1, 41	2.58*	.49
		Final Model Values					
		Child's age	.17		41	1.49	
		Child's gender	-.11		41	-.87	
		Parental distress	-.28		41	-2.36*	
		Indirect coping	.45		41	3.67***	

*p < .05; ***p < .001

According to final model values, this hierarchical multiple regression analysis indicated that indirect and emotion focused coping style were

positively and parental distress was negatively associated with flexibility ratio reported by mothers of children with autism from the U.S.

5.3.2.1.4 Predictors of Total Circumplex Ratio for the United States

In order to assess the predictors of total circumplex ratio for mothers of children with autism from the U.S. among the child related variables, the family related variables, parenting stress related variables, coping ways related variables, and social support related variable, a hierarchical multiple regression was conducted. Total circumplex ratio was determined as the dependent variable for the analysis. As detailed information were given previously, variables entered into the regression equation in 5 blocks similar to the previous analysis (see Table 15, p. 139). The results of the hierarchical multiple regression analysis are presented in Table 19.

The results of the regression analysis indicated that child's age ($\underline{\beta}$ = .09, $\underline{t}$ [44] = .62, $\underline{p}$ > .05) and child's gender ($\underline{\beta}$ = .12, $\underline{t}$ [44] = .78, $\underline{p}$ > .05) that entered into the equation in the first block explained 3 % of the total variance ($\underline{F}$ [2, 44] = .58, $\underline{p}$ > .05). Stress related variable of parental distress ($\underline{\beta}$ = -.49, $\underline{t}$ [43] = -3.47, $\underline{p}$ < .001) that entered into the regression equation in the third block explained 21 % of the total variance ($\underline{F}$ Δ [1, 43] = 12.06, $\underline{p}$ < .001). Among variables related to coping, indirect coping ($\underline{\beta}$ = .50, $\underline{t}$ [42] = 4.18, $\underline{p}$ < .001) that entered into the equation in the fourth block explained 22 % of the total variance ($\underline{F}$ Δ [1, 42] = 17.44, $\underline{p}$ < .001). At last, social support variable ($\underline{\beta}$ = .39, $\underline{t}$ [41] = 3.40, $\underline{p}$ < .001) that entered into the regression equation on the last step explained 12 % of the total variance

(F Δ [1, 41] = 11.59, p < .001). All of the variables totally explained 58 % of the total variance in total circumplex ratio reported by mother's of children with autism from the U.S. (F Δ [5, 41] = 11.36, p < .001).

Table 19. Predictors of Total Circumplex Ratio for the United States

Order of entry of set	Step	Variables	Beta	FΔ	df	t for within set predictors	Model R^2
I. Child demog. and control variables	1			.58	2, 44		.03
		Child's age	.09		44	.62	
		Child's gender (1 = female, 2 = male)	.12		44	.78	
III. Stress related variables							
	2	Parental distress	-.49	12.06***	1, 43	-3.47***	.24
IV. Coping ways related variables							
	3	Indirect coping	.50	17.44***	1, 42	4.18***	.46
V. Social Support related variables							
	4	Social Support	.39	11.59***	1, 41	3.40***	.58
		Final Model Values					
		Child's age	.27		41	2.53*	
		Child's gender	-.12		41	-1.12	
		Parental distress	-.26		41	-2.19*	
		Indirect coping	.46		41	4.25***	

*p < .05; ***p < .001

According to final model values, this hierarchical multiple regression analysis indicated that child's age, indirect coping style, and social support

were positively and parental distress was negatively associated with total circumplex ratio reported by mothers of children with autism from the U.S.

5.3.2.2 Summary of the Hierarchical Multiple Regression Analyses Conducted for Turkey and for the U.S.

Table 20 represents the summary of the final models of the Hierarchical Multiple Regression Analyses conducted for each country.

Table 20. Summary Table of the Final Models of Hierarchical Multiple Regression Analyses by Country of Origin (Turkey and the U.S.)

	Hierarchical Multiple Regression Analyses					
	Cohesion Ratio		Flexibility Ratio		Total Circumplex Ratio	
	Turkey	United States	Turkey	United States	Turkey	United States
Model R^2	.48	.55	.20	.49	.38	.58
1st Step						
Child's age	—	√ (+)	—	—	—	√ (+)
Child's diagnosis age	—	NA	—	NA	—	NA
Child's gender	NA	—	NA	—	NA	—
2nd Step						
Mother's age	—	√ (–)	—	—	—	—
Mother's educational level	—	NA	—	NA	—	NA
Father's age	NA		NA		NA	
Father's educational level	—	—	—	—	—	—
3rd Step						
Parental distress	—	—	—	√ (–)	—	—
Parent-child dysfunctional interaction	—	—	—	—	—	—
Difficult child	—	—	—	—	—	—
4th Step						
Problem focused coping	√ (+)	—	√ (+)	—	√ (+)	—
Emotion focused coping	—	—	—	√ (+)	—	—
Indirect coping	—	√ (+)	—	√ (+)	—	√ (+)
5th Step						
Social Support *	√ (+)	√ (+)	—	—	√ (+)	√ (+)

√ represents significance of that variable
— represents non-significance of that variable
(+) represents the positive relationship with the dependent variable
(–) represents the negative relationship with the dependent variable
NA represents that the variable was not entered into the regression analysis
* This variable was assessed by different measures for each country

CHAPTER 6

DISCUSSION

The aim of the main study was to compare parenting stress, coping ways, and family functioning processes of mothers of children with autism from Turkey and the U.S. In addition, the study aimed to find out the predictors of family cohesion and flexibility among the predictor variables of parenting stress, coping ways, and social support for mothers of children with autism from Turkey and the U.S separately.

In this chapter findings of comparison and regression analyses were discussed. The chapter was divided into two sections. In the first section, the psychometric studies of the measures adapted for the main study were discussed. This section presented the discussion of Turkish reliability and validity studies of the Flexibility and Cohesion Evaluation Scales – Fourth Edition (FACES IV; Olson et al., 2004) and the Parenting Stress Index / Short Form (PSI/SF; Abidin, 1995b), respectively. The second section involved the discussion of the main study findings. In this section, first, group comparison findings based on the country of origin, and then the predictor analyses, conducted separately for each sample group, were discussed.

6.1 Discussion of Psychometric Properties of the Measures Adapted into Turkish for Turkey Part of the Current Study

In order to assess family functioning processes and parenting stress levels of mothers, the measures of Flexibility and Cohesion Evaluation Scales – Fourth Edition (FACES IV; Olson et al., 2004) and Parenting Stress Index / Short Form (PSI/SF; Abidin, 1995b) were used. Since these two measures have not been used in the Turkish context before, reliability and validity analyses were first conducted prior to the main study (see Study 1, p. 67 and Study 2, p. 81).

6.1.1 The Psychometric Properties of FACES IV – Fourth Edition

FACES IV is a reliable and valid 62-item Likert-type self-report instrument that can be applied to all family members over the age of 12 years old. The measure was derived from the Circumplex Model of Marital and Family Systems and was developed as a family assessment tool with two dimensions: flexibility and cohesion. It consists of six separate subscales, two balanced and four unbalanced, which were derived from the factor analyses of all FACES IV items. While balanced subscales are designed to assess balanced aspects of cohesion and flexibility, namely cohesion and flexibility subscales, the unbalanced ones are designed to assess extreme points of cohesion and flexibility dimensions, namely disengaged and enmeshed subscales, in order to indicate high and low extremes of cohesion, as well as rigid and chaotic to indicate high and low extremes of flexibility.

For reliability analyses of the original scale, an alpha reliability analysis was used to assess internal consistency of the six scales and the Cronbach alpha scores of the six scales were found to range between .77 (for enmeshed) and .89 (for cohesion). For reliability analyses of the Turkish version of the measure, internal consistency and split-half reliability of the translated version of FACES IV were checked. The Cronbach alpha coefficients for internal consistency of six subscales of FACES IV were found to range between .69 (for chaotic) and .82 (for cohesion). Moreover, Spearman-Brown Split Half reliability coefficients were found to range between .51 (for chaotic) and .79 (for cohesion). As a result, similar to the original reliability studies of the measure, the reliability analyses of the Turkish version also indicated satisfactory reliable results for evaluating family functioning processes in Turkish culture.

For validity analyses, firstly, the intercorrelations among the six subscales of FACES IV were evaluated to assess construct validity. Significant positive correlation was found between cohesion and flexibility subscales in the Turkish sample similar to the construct validity analysis of the original FACES IV. In addition, significant negative correlations between the balanced subscales of cohesion and flexibility and the unbalanced subscales of disengaged, rigid, and chaotic found in the Turkish version were also parallel with correlations found in the original development study of FACES IV. Moreover, the unbalanced subscales of disengaged and enmeshed were positively correlated with the unbalanced subscales of rigid and chaotic both

for the original and Turkish versions. Despite these parallel correlation results, a noticeable difference was observed between the original and the Turkish version of the FACES IV in terms of the correlation between the balanced subscale of cohesion and the unbalanced subscale of enmeshed. While in the original validity analyses, a negative correlation was observed between the balanced subscale of flexibility and the unbalanced subscale of enmeshed, a significant positive correlation between these subscales was observed in the Turkish version of the measure. This apparent contrast between the two cultures is consistent with an ongoing debate in existing literature on the issue of cultural differences of the relationship between cohesion and enmeshment. Kouneski (2000), for example, studies the Circumplex Model of Marital and Family Systems by reviewing its development, research, and applications. The particular emphasis of the study is the issue of cultural tendencies in terms of family cohesion and flexibility dimensions. As Kouneski also indicates the concept of enmeshment is marked by cultural differences, an argument which is also supported by other studies. In a dominantly Western culture, enmeshment is closely associated with loyalty and therefore has less value. However, for other cultures with more collectivist tendencies, extreme connectedness can be viewed as strong ties and preferable and it may serve some functional purpose. As Kağıtçıbaşı (1996b; 2005) notes, even though there is room for autonomy in the family systems of cultures of relatedness within Turkish families, psychological interdependencies are still valued and preferred. Drawing on this argument, the positive correlation between cohesion

and enmeshment in the Turkish sample of this study can be understood better. Since the psychological connectedness and interdependency are still prevalent in cultures with collectivist features, enmeshment may serve a positive function in the family system, rather than posing a threat to the individuality of the family members. This evaluation stands out as the strongest explanation for the current study's finding of positive correlation between cohesion and enmeshment subscales in the Turkish culture.

For convergent validity analyses, Olson et al. (2004) evaluated the intercorrelations between FACES IV and Family Satisfaction Scale (Olson & Stewart, 1989), Self-report Family Inventory (Beavers et al., 1990), and McMaster Family Assessment Device (MMFAD; Epstein et al., 1983), concluding that most of the correlations between FACES IV scales and validation scales were significant. The convergent validity analyses of the Turkish version of FACES IV were also conducted by examining the intercorrelations between the scales of FACES IV and MMFAD. In the original development studies of FACES IV, the general functioning subscale of MMFAD was used in order to assess convergent validity, since the general functioning subscale was considered to be one of the strongest scales to assess unique variation in family functioning (Ridenour et al., 1999). Convergent validity analysis of the Turkish version of FACES IV showed similar results to the original validation study in terms of intercorrelations with the MMFAD except enmeshed subscale of FACES IV. While correlations between cohesion, flexibility, disengaged, rigid, and chaotic subscales of FACES IV and the

general functioning subscale of MMFAD yielded parallel results with the original validation study, the correlation between enmeshed subscale of FACES IV and the general functioning subscale of MMFAD showed exactly the opposite direction in the Turkish sample. This finding can be also explained on the basis of the previous discussion on the function of psychological interdependence within Turkish culture different from American culture.

6.1.2 The Psychometric Properties of PSI/SF

The Parenting Stress Index / Short Form (PSI/SF; Abidin, 1995b) is a reliable and valid 36-item Likert-type self-report instrument that can be applied to parents of children aged between 0-12 years old. The PSI/SF was derived from the full-length test of Parenting Stress Index (PSI) and assesses the primary components of the parent-child system by focusing on the parent, the child, and their interactions. It consists of three subscales, labeled as Parental Distress (PD), Parent-Child Dysfunctional Interaction (P-CDI), and Difficult Child (DC). These subscales were derived from the factor analyses of all PSI/SF items. The Total Stress score is composed of these three subscales of PSI/SF.

In the original development study, reliability of PSI/SF was assessed by both internal consistency and test-retest reliability analyses. The Cronbach's alpha coefficients of the three subscales and the total stress score were found to range between .80 (for P-CDI) and .91 (for Total Stress), indicating internal consistency and between .68 (for P-CDI) and .85 (for PD), indicating test-retest reliability. Similar to the original study, the Turkish version of PSI/SF was

found to show internal consistency coefficients in the range between .83 (for PD) and .92 (for Total Stress). Additionally, split-half reliability of the Turkish version of PSI/SF was checked and Spearman-Brown split-half reliability coefficients were found to range between .78 (for PD) and .88 (for P-CDI). The internal consistency and split-half reliability analyses indicate that the Turkish version of PSI/SF is a reliable measure.

For validity analyses, the correlations between the PSI/SF and full-length PSI were evaluated in the original development of the measure. A high correlation was found between the Total Stress scores of the PSI/SF and full-length PSI. In terms of subscales of the PSI/SF and full-length PSI, high correlations were also found between PD subscale of PSI/SF and Parent Domain of full-length PSI and between DC subscale of PSI/SF and Child Domain of full-length PSI. For the Turkish version of PSI/SF, intercorrelations among PSI/SF were evaluated for the validity analyses first. All subscales of PSI/SF were found to be positively correlated both among each other and with the Total Stress score. These significant intercorrelations were indicators of construct validity of the Turkish PSI/SF. For the convergent validity analysis of the Turkish version of PSI/SF, the Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997) was selected since both measures have considerable focus on the child's difficulty. Correlations between subscales plus Total Stress score of PSI/SF and subscales of the Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997) were examined. A significant positive correlation was found between PD, P-CDI, and DC of PSI/SF and Emotional Symptoms,

Conduct Problems, Hyperactivity-Inattention, and Peer Problems subscales of SDQ. Increase in parental stress, dysfunctional interaction between the parent and the child, and difficulty of the child was correlated with the increase in child's emotional symptoms, conduct problems, hyperactivity-inattention, and peer problems. On the other hand, P-CDI and DC were found to be negatively correlated with Prosocial Behavior. As dysfunctional interaction between the parent and the child and difficulty of the child decreased, prosocial behavior of the child increased. Finally, there was a positive correlation between total stress score of PSI/SF and total difficulties score of SDQ, which meant that increase in total stress was associated with increase in total difficulties. Overall, these positive and negative correlations were indicators of the Turkish version of PSI/SF as a valid measure in assessing parental stress.

6.2 Discussion of the Main Study

This section aimed to discuss the findings of the main study. First, a discussion of the group comparisons based on the country of origin was presented. Secondly, a discussion of the predictors of family functioning processes among the variables of family demographics, parenting stress, social support, and coping strategies was presented both for mothers of children with autism from Turkey and from the U.S.

6.2.1 Group Comparisons: Parenting Stress, Coping Strategies, and Family Functioning Variables

As the main study analyses, mothers of children with autism from Turkey and from the U.S. were compared in terms of parenting stress, coping strategies, and family functioning variables. Comparison findings of parenting stress, coping strategies, and family functioning variables based on the country of origin for mothers of children with autism were discussed in the following section.

6.2.1.1 Comparison of Parenting Stress

Comparing mothers of children with autism from Turkey and the U.S. revealed no significant differences in terms of parenting stress variables. More specifically, none of the parenting stress variables, namely parental distress, parent-child dysfunctional interaction, and difficult child, was found to be significantly different for mothers of children with autism from Turkey and the U.S. In a similar vein, when parenting stress scores of each sample groups were investigated separately, both groups of mothers reported high stress scores on all parenting stress dimensions measured for the current study. When both groups of mothers in this study were evaluated in terms of their scores on PSI/SF, mean values of the reported scores on subscales and total stress were found to exceed the 80th percentile. While mothers from Turkey reported over the 90th percentile on Parental Distress subscale scores, mothers from the U.S. reported between the 80th and 85th percentile. Moreover, both groups of mothers reported over the 90th percentile on Parent-Child Dysfunctional

Interaction and Difficult Child subscale scores. At last, the means of Total Stress scores for both groups of mothers corresponded to the 95th percentile or higher. These stress scores overall stand out as one of the most remarkable findings of this study. It could be stated that findings of the present study in terms of parental stress have turned out to be supporting the parenting stress literature focusing on families of children with autism. This finding was consistent with other studies that have demonstrated high stress levels observed in mothers of children with autism both from Turkey and from the U.S. (e.g., Hasting, 2002; Tomanik et al., 2004; Akçakın & Erden, 2001; Elçi, 2004). Moreover, as indicated in some other studies, the behavioral characteristics of children with autism are considered to be one of the most outstanding reasons of parental stress experienced especially by primary caregivers (Bouma & Schweitzer, 1990; Rodrigue et al., 1990; Tomanik et al., 2004). In addition, during the preschool ages of the child with autism, experiences of ambiguity and uncertainty in terms of the child's social and behavioral limitations may be the biggest concern for mothers (Rodrigue et al., 1990). These results, consistent with previous findings in the literature, indicated that mothers of preschool aged children with autism both from Turkey and from the U.S. reported higher levels of stress related to the child and parent-child interaction. Furthermore, these results could be interpreted along the same lines with the previous findings in that they all suggest that difficulty of the child and of parent-child interaction may exacerbate the experienced stress levels of mothers (Baker et al., 2003; Baker et al., 2005; Mesibov, 1997). According to

the findings of the current study on parenting stress observed in both groups of mothers, it could be stated that raising a child with autism creates heightened stress for mothers independent from culture and the country of origin. Two possible explanations might be suggested for this similar finding across two cultures (Turkey and the U.S.) regarding parenting stress. First, the universality of autism symptoms may create the similar impact on parents in terms of experienced distress. While family patterns seem to show variances across cultures, the behavioral pattern of autism is constant and does not differ across cultures. More specifically, two main diagnostic criteria of autism, defined as qualitative impairments in social interaction and communication (DSM-IV-TR; American Psychiatric Association, 2000), may even strenghten both the uniqueness and universality of the disorder. In other words, all families with a child with autism around the world face the same difficulties specific to their child's disorder. Consequently, the nature of autism might be the reason for observing the hightened stress levels experienced by both groups of mothers in the present study. Second explanation, which may also be evaluated as related to the first one, could be made by the sample characteristics of the study. Inclusion of mothers of children with autism exclusively within preschool ages might be considered as another possible reason for this finding. Since the experience of ambiguities and difficulties related to the child's diagnosis (i.e., social and behavioral impairments) are quite high in intensity during preschool ages (Rodrigue et al., 1990), the situation for the parents may become the primary stressor apart from the cultural differences.

6.2.1.2 Comparison of Coping Strategies

In terms of coping strategies, the only significant difference between mothers of children with autism from Turkey and the U.S. was found in problem-focused coping. Mothers of children from Turkey were found to use problem-focused coping strategies significantly more than mothers from the U.S. Meanwhile, no significant difference was found between the two groups on emotion-focused and indirect coping strategies. Lazarus (1993) proposes in his paper that there is a cultural tendency in Western cultures to value problem-focused coping strategies more and to distrust emotion-focused coping strategies. In other words, to focus on the problem itself and to take direct action for the existing problem (the core element of the problem-focused coping approach) is more desirable in Western cultures than to reappraise the relational meaning attached to it (the core element of the emotion-focused coping approach). Having no other theoretical basis to expect a different result from the Turkish culture, the current study also expected to attain similar findings with respect to coping strategies in both the American and Turkish mothers of children with autism. However, contrary to the expectations, mothers of children with autism from Turkey were found to use problem-focused coping strategies more than their counterparts from the U.S.

Folkman and Lazarus (1980) also put emphasis on the nature of the stressor and not just on the cultural tendencies. Parallel with this emphasis, the finding that Turkish mothers of children with autism more widely use problem-focused coping strategies can be explained better by the nature of the stressful

situation. Problem-focused coping strategies are more likely to be used when a person feels control over a situation and feels that something can be done about it. On the other hand, in circumstances when the situation seems out of control, emotion-focused coping strategies are more likely to emerge. In the case of having a child with autism, considering the nature of this unique disorder and the elevated levels of stress experienced by parents compared to parents of typically developing children and even to parents of children with other developmental disabilities, parents with children with autism are usually more prone to use emotion-focused coping strategies. While there is a limited number of studies conducted on types of coping strategies used by families of children with autism, a recent study of Hasting, Kovshoff, Brown, Ward, Espinosa, and Remington (2005) concludes that emotion-focused coping strategies, such as active avoidance, are related to the existence of higher parental stress and health problems in parents. Moreover, mothers of children with autism were found to report more problem-focused coping strategies than fathers. However Hasting et al. (2005) cannot find any significant association between problem-focused coping strategies and parental stress and mental health. Moreover, Sivberg (2002) also focuses on the coping strategies used by mothers of children with autism and concludes that parents of children with autism tend to use more non-constructive coping styles such as distancing and escaping than more constructive coping strategies such as self control and problem solving.

In spite of these findings on coping strategies of parents of children with autism and the cultural tendency of coping styles stated by Lazarus (1993), the finding of higher problem-focused coping strategies used by mothers of children with autism from Turkey was unexpected. The important question here is what leads mothers of children with autism from Turkey to use more problem-focused coping strategies. At this point, looking at the existing social policies on disability as well as governments' approach to disability in both countries may be helpful to explain the situation better. Pınar (2006) outlined the historical development of early childhood special education in different countries around the world (e.g., the U.S., Canada, and some European countries) in comparison to Turkey. According to this study, there are important differences between industrialized Western countries and Turkey in terms of early childhood special education history. In the West, a crucial improvement in early special education services has been the inclusion of family system to the existing programs. This inclusion mainly draws on the theory of Bronfenbrenner (1986) which put great emphasis on family environment in child development. While the importance of early special education services was recognized and began to be implemented in the U.S. and in some European countries such as Sweden, England, Finland, and Germany during early 1960s, the importance of this issue in Turkey has only begun to receive attention recently. A concrete step was taken during the late 1990s by a formal governmental decree. This time lag shows that family-oriented early childhood intervention programs are only recently beginning to

draw attention in Turkey and therefore the effectiveness of such early intervention programs are very limited (Pınar, 2006). In contrast, in the U.S., where early childhood special education programs began to appear during the 1960s, social movements that intended to increase public awareness of autism also emerged simultaneously. For example, Autism Society of America (ASA, 1965), one of the oldest and largest autism networks in the U.S., was founded in 1965 with the aim of improving the living conditions of individuals with autism, increasing public awareness about the difficulties faced by individuals with autism and their families, and providing up-to-date information regarding autism treatment, research, and advocacy issues. With regards to autism spectrum disorders, public awareness has also started to grow very recently in Turkey parallel to the improvement of early childhood special education programs. As the most remarkable attempt on diagnosis and treatment issues of autism in Turkey, The Diagnosis, Treatment, Training, and Application Center on Autism (Ankara Üniversitesi Otizm Tanı, Tedavi, Eğitim ve Uygulama Merkezi, 1989) founded by Efser Kerimoğlu, Ph.D. in Ankara University, has been the first and the only center on diagnosis, treatment, and related research of autism and other pervasive developmental disorders. Overall activities of this center could be considered as the first triggering movement in terms of diagnosis, early intervention, and creation of public awareness on autism spectrum disorders in Tukey. As the most recent formation, Autism Platform (Otizm Platformu, 2008) is a newly formed organization in Turkey, founded in 2008 with the combination of 16 nationwide civil society associations on

autism. Similar to ASA, Autism Platform also aims to increase public awareness, to create a network, to enhance autism research and treatment, and to have a voice in legal arrangements in Turkey regarding autism.

With respect to early childhood special education programs and public advocacy policies, Turkey stands far behind the U.S. with regard to historical milestones and achievements. For this reason, parents of children with autism in Turkey are hypothesized to have the need to spend additional effort in order to reach special education services for their children since these services are not yet readily available as they are in the U.S. In the meantime, the information flow is faster than ever in today's highly computerized world and every kind of information is easily accessible and available. For this reason, despite the scarcity of support systems and social services, parents of children with autism in Turkey can obtain the most up-to-date information that would benefit their child. These parents are also aware of the importance of early intervention in autism similar to their U.S. counterparts. Immediately after getting the autism diagnosis, the urge of not to be too late for the necessary intervention possibly makes the use of emotion-focused coping strategies less useful for them. In order to be able to take direct action for the problem situation the use of more problem-focused coping strategies may prove to be more beneficial for Turkish mothers compared to mothers of children with autism from the U.S.

6.2.1.3 Comparison of Family Functioning Variables

Comparison of family functioning variables showed that there were significant differences on flexibility and enmeshment between mothers of children with autism from Turkey and the U.S. Turkish mothers reported significantly higher flexibility and enmeshment levels than mothers of children with autism from the U.S. Olson et al. (2004) created the norm values for each family functioning variable in order to specify the levels of each variable. While balanced family functioning variables of cohesion and flexibility are divided into three ascending levels (i.e., somewhat connected/flexible, connected/flexible, and, very connected/flexible) the unbalanced family functioning variables are divided into five ascending levels (i.e., very low, low, moderate, high, and very high). From this viewpoint, when considering the mean scores of the whole family functioning variables (including the significant variables of flexibility and enmeshment), both Turkish and American mothers reported within the range of normal functioning according to norm criteria. In other words, even though the mothers of children with autism from Turkey had significantly higher flexibility and enmeshment scores than mothers of children with autism from the U.S., the mean scores of flexibility and enmeshment variables indicated that both groups of mothers reported as "flexible" in balanced scale of flexibility variable and as "very low" in unbalanced scale of enmeshment variable. Since the Circumplex Model of Marital and Family Systems bases its theory on the curvilinear assumption of these family functioning variables, it is crucial to interpret and discuss the

family functioning processes in terms of family cohesion and flexibility ratios, which is outlined thoroughly in the following section.

6.2.2 Predictors of Family Cohesion and Flexibility for Mothers of Children with Autism from Turkey and the United States

A series of hierarchical multiple regression analyses were conducted to examine predictors of family functioning processes, namely cohesion, flexibility, and total circumplex ratios. According to the Circumplex Model of Marital and Family Systems (Olson & Gorall, 2003), cohesion and flexibility dimensions are considered as the indicators of family health. At this point, it is important to rephrase the nature of the relationship between cohesion and flexibility dimensions and family health. The relationship between these dimensions and family health is curvilinear, which means too much cohesion (enmeshment) and flexibility (chaotic) or too little cohesion (disengaged) and flexibility (rigid) point will engender dysfunction in the family system. In other words, cohesion and flexibility is assumed to be functional within the family unit only if they appeared in moderate levels. In order to assess curvilinearity of cohesion and flexibility, the cohesion and flexibility ratios were designed. While the cohesion ratio points to a healthy level of emotional connectedness and togetherness within family members, the flexibility ratio indicates a healthy level of change within the family system in terms of role and rule relationships. Furthermore, these two ratios are also unified into one ratio, namely total circumplex ratio that aims to summarize the characteristics of both dimensions within a single score (Gorall et al., 2004).

In the current study, predictors of cohesion, flexibility, and total circumplex ratios were assessed through hierarchical multiple regression analyses and presented separately for both sample groups. The demographic variables were included into the regression analyses in accordance with the correlations within each sample group. While child's age, child's diagnosis age, mother's age, mother's educational level, and father's educational level were selected as the child-related demographics for the mothers of children with autism from Turkey, child's age, child's gender, mother's age, father's age, and father's educational level were selected for the regression analyses of mothers of children from the U.S. Apart from child- and family-related variables that were entered into the regression analyses in the first and second blocks, maternal stress, coping strategies, and social support related variables were entered into the regression equations as the third, fourth, and fifth blocks, respectively, for each sample group.

Despite the large volume of research conducted on stress experienced by parents of children with autism, limited number of studies focus on the impact of having a child with autism to family functioning processes. The studies on family functioning processes with families of children with autism have generally focused on the comparison of cohesion and flexibility levels to the families of children with other developmental disabilities, children with typical development, and normative data, and revealed some inconsistent results in terms of cohesion levels of families of children with autism (e.g., Rodrigue et al., 1990; Higgins et al., 2005). Rodrigue et al. (1990) compared

the mothers of children with autism to mothers of children with Down syndrome and children with normal development and found that mothers of children with autism reported higher family cohesion and lower family flexibility than mothers of Down syndrome and normal children. While Rodrigue et al. (1990) focused on mothers of children with autism from the U.S., Higgins et al. (2005) conducted a more recent study in Australia and found inconsistent findings with Rodrigue et al.'s study. According to Higgins et al. (2005), families of children with autism had lower cohesion and flexibility levels than normative data. Despite the considerable amount of literature that has agreed upon the heightened level of stress experienced by parents of children with autism and yet reported inconsistent findings in terms of cohesion and flexibility levels of families of children with autism, some studies also state that some parents of children with autism may function well and experience closeness within the family unit (Bayat, 2007). The findings of the current study also revealed high levels of parental stress experienced by mothers of children with autism both from Turkey and from the U.S. Following this consistent finding with the existing literature in terms of parental stress, examining the predictors of cohesion and flexibility of mothers of children with autism constitutes the main theoretical baseline for the following discussion.

In terms of the findings of the present study related to predictors of family cohesion, problem-focused coping strategy and social support were significant predictors of cohesion ratio for mothers of children with autism

from Turkey. For the mothers of children with autism from Turkey, none of the child- and family-related demographic variables were found to be associated with the cohesion ratio. Moreover, parenting stress variables of parental distress, parent-child dysfunctional interaction, and difficult child were also not found to be related to cohesion ratio for mothers from Turkey. On the other hand, problem-focused coping strategy was found to be significantly associated with the cohesion ratio. For Turkish mothers, increase in problem-focused coping strategy was found to be related to the increase in the cohesion ratio. Moreover, social support variable was also found to be positively related to cohesion, which meant mothers who reported higher social support are found to experience higher cohesion within the family. The results for mothers of children with autism from Turkey indicated that problem-focused coping strategy was also a significant predictor of the flexibility ratio for mothers of children with autism from Turkey. Similar to the predictors of cohesion ratio found in the present study, none of the child- and family-related variables was found to predict cohesion for the mothers of children with autism from Turkey. Moreover, parenting stress variables were also not found to be associated with flexibility for mothers from Turkey. Among coping strategies, problem-focused coping strategy was also found to be positively associated with cohesion for this group of mothers. Finally, while the social support variable predicted cohesion for both groups of mothers, the same variable was not found to be associated with flexibility for mothers from Turkey.

When it comes to the predictors of cohesion ratio for mothers of children with autism from the U.S., child's age, mother's age, parental distress, indirect coping strategy, and social support appeared as significant predictors of cohesion ratio for this group of mothers. Different from their Turkish counterparts, some of the child- and family-related demographics were found to be significantly related to the cohesion ratio for mothers of children with autism from the U.S. Even though the present study included only the mothers of preschool children with autism, age of the child was found to be positively associated with cohesion for mothers from the U.S. Put another way, as the child with autism was growing up, family cohesion was becoming higher. Moreover, among the family related demographics, mothers' age also predicted the cohesion for this group. Age of mothers of children with autism from the U.S. was found to be negatively associated with cohesion ratio. In other words, being younger was found to predict higher cohesion for this group of mothers. Another important difference from Turkish mothers appeared in the parenting stress related variables. Parental distress was found to be negatively related to cohesion ratio, which means that lower parental distress predicted higher cohesion ratio for mothers of children with autism from the U.S. In terms of coping strategies, higher indirect coping strategy was positively associated with higher cohesion level for mothers from the U.S. Finally, similar results have yielded for mothers from the U.S. regarding social support. For this group, higher social support also predicted higher cohesion level. Meanwhile, parental distress, indirect coping strategy, and emotion-focused coping strategy

appeared as significant predictors of flexibility ratio for mothers of children with autism from the U.S. Similar to the results of mothers from Turkey, child- and family-related variables did not predict flexibility. However, similar to the predictors of cohesion for this group of mothers, lower parental distress was found to predict higher flexibility for mothers of children with autism from the U.S. In terms of coping strategies, both indirect and emotion-focused coping strategies were found to be positively related to higher flexibility for this group of mothers. Finally, like mothers from Turkey, social support did not also predict flexibility.

The last set hierarchical multiple regression analyses were conducted to evaluate the predictors of total circumplex ratio, initially designed to unify cohesion and flexibility levels into one measure (Gorall et al., 2004). Since this ratio summarizes the health of the family in terms of predictors of cohesion and flexibility, it presents significant family functioning predictors. Results for mothers of children with autism from Turkey indicated that problem-focused coping strategy and social support were significant predictors of total circumplex ratio for mothers of children with autism from Turkey. On the other hand, child's age, indirect coping strategy, and social support appeared as the significant predictors of total circumplex ratio for mothers of children with autism from the U.S.

There is a noticeable difference between mothers of children with autism from Turkey and from the U.S. with respect to the predictor value of parenting stress variables on cohesion and flexibility ratios. While parental

distress predicted cohesion and flexibility for mothers of children with autism from the U.S., none of the parenting stress variables appeared as a predictor for those from Turkey. For the sake of overall evaluation of the effect of parenting stress to family functioning variables, it is important to refer to one of the important findings in the related literature. Boyce, Behl, Mortensen, and Akers (1991) conducted a study in order to investigate possible predictors of stress experienced by families of preschool aged children with disabilities. They primarily evaluated the predictors of child- and parent-related stress. According to this study, cohesion appeared as one of the most significant predictors of child- and parent-related stress for the mothers of children with disabilities. Cohesion levels of these parents were found to be related to less child- and parent-related stress. However, the study of Boyce et al. (1991) could not find any significant association between family flexibility and child- and parent-related stress. Findings of this study are partially consistent with the finding of the current study for the U.S. part of the regression analyses. The parental stress levels of mothers of children with autism were also found to be negatively related to family cohesion. On the other hand, analyses demonstrated a different finding for the mothers of children with autism from Turkey. None of the parenting stress variables was found to predict either family cohesion or flexibility for this group of mothers. At this point, evaluating the changes occurred when different variables were entered into the regression equation for the Turkish mothers may help to understand the difference better. For this group, father's education level among family-related

demographic variables appeared to be a significant predictor for family cohesion. However, when coping related variables were entered into the regression equation, this variable lost its significance and problem-focused coping strategy appeared to predict family cohesion. Two different interpretations could help to explain this finding. First, father's educational level might have the effect of suppressing parenting stress variable on family cohesion for mothers of children with autism from Turkey. If the predictor value of parenting stress variables on family cohesion could be observed without the following contributions of coping and social support related variables, the predictive strength of father's education level might have been observed due to its strong negative correlation with some of parenting stress variables and this explanation might have been valid for this group of mothers. Since it is not possible to observe this possible explanation from the analyses of the current study, a second explanation may provide better proof for the available finding. The lack of explanatory strength of parenting stress variable for the Turkish mothers may be more likely due to the significant strong correlations observed between parenting stress variables and problem-focused coping strategies for this group of mothers. In other words, for mothers of children with autism from Turkey, parenting stress variables and problem focused coping strategies seem to be highly related to each other. For this reason, the use of problem-focused strategies might have suppressed the effect or parenting stress variables to be visible for this group of mothers.

Parallel with the group comparison findings of the present study regarding coping strategies, mothers from Turkey who used more problem-focused coping strategies were found to experience higher family cohesion and flexibility. This finding could be considered as consistent with the existing literature on the relationship between coping strategies used by families of children with disabilities and family functioning processes. The U.S. based studies which have solely focused on the types of coping strategies used by families of children with severe behavioral problems found emotion-focused coping strategies not beneficial for psychological well-being of parents and may in turn have a negative impact on parental stress (Hasting et al., 2005; Orr et al, 1991; Quine & Pahl, 1991). In addition, in a European based study, Sivberg (2002) found that parents of children with autism tended to use more emotion-focused coping strategies, which in turn resulted in higher levels of burden on the family system. In the light of literature suggesting empirical evidence of dysfunctional results for parents of children with autism to use emotion-focused coping strategies, the findings of the current study in terms of predictors of cohesion and flexibility for families with a child with autism seem stronger and more convincing. While limited research has been conducted on coping strategies of Turkish families with a child with autism, general findings in terms of heightened stress levels of parents of children with developmental disabilities and negative impact of experienced stress on their psychological well-being were consistent with the literature (Herken et al., 2000; Duygun & Sezgin, 2003; Elçi, 2004; Akçakın & Erden, 2001). At this point, a very recent

study of Lightsey and Sweeney (2008) should also be mentioned for better evidence of the effect of coping strategies on family functioning processes for families of children with autism. Lightsey and Sweeney (2008) conducted a study for testing the predictor value of coping style, generalized self-esteem, family cohesion, and meaning of life for family satisfaction of mothers with disabilities. Most mothers included in this study had a child with developmental disability. According to this study, lower parental stress, use of less emotion-focused coping strategies, and higher family cohesion were found to be associated with experience of higher family satisfaction. When these findings of these studies are evaluated along with the previously stated discussion regarding the tendency to use problem-focused coping strategies of mothers of children with autism from Turkey found in the present study, this type of coping may be considered as one of the primary elements predicting family cohesion and flexibility for Turkish mothers of a child with autism.

On the other hand, findings on predictors of cohesion and flexibility have yielded a somewhat different situation for mothers from the U.S. While indirect coping strategies predicted higher family cohesion, both indirect- and emotion-focused coping strategies were found to predict higher family flexibility for American mothers. First, to give possible explanations for the predictive value of indirect coping strategies on family cohesion and flexibility, in depth evaluation of this type of coping seems necessary. Indirect coping strategies could be defined as seeking social support, such as sharing the problems with significant others and receiving some advice before focusing on

the problem (Folkman & Lazarus, 1985; Gençöz et al., 2006). At this point possible cultural differences regarding social support seeking activities should be discussed for highlighting the stated finding of the present study in terms of indirect coping. Shin (2002) conducted a comparison study in order to evaluate cultural differences among mothers of children with mental retardation from Korea and the U.S. in terms of receiving professional and informal support. Shin (2002) proposed to find more informal and less professional social support for Korean mothers than American mothers. Despite the expectation of the existence of more informal social support resources among Korean mothers than among their U.S. counterparts, findings of the study yielded somewhat contrary findings. According to the study, Korean mothers of children with mental retardation were found to be hesitant to use informal support sources, including relatives, neighbors, and friends due to the fear of receiving negative feedback regarding their child's disability. Moreover, as expected by this study, mothers from the U.S. were found to depend more on professional social support than mothers from Korea. This finding of Shin's study was discussed in the same line with the discussion on coping strategy differences presented in this current study. Since the professional services are still in the early stages of development in Korea, Korean mothers were not found to rely on these services as much as American mothers. While the family interaction patterns of Turkey and Korea seem quite different (Kağıtçıbaşı, 1996a, 1996b), findings of this study in terms of informal and professional social support resources imply similar characteristics for mothers from Turkey. Similar to mothers of children

with disabilities from Korea, Turkish mothers with a child with autism may also feel hesitant to rely on indirect coping strategies as compared to mothers from the U.S., since these strategies mainly include sharing their problems with others and receiving external help and advice. Secondly, besides indirect coping, emotion-focused coping strategy also appeared to predict family flexibility for mothers of children with autism from the U.S. While indirect coping strategy accounted for 28 % of the total variance, emotion-focused coping strategy accounted only for 8 % of the total variance on family flexibility for American mothers. Despite this relatively small predictive value of emotion-focused coping strategy, this finding still deserves special attention. To the knowledge of the author, there does not exist a study that specifically investigates the predictor value of emotion-focused coping strategy on family flexibility of families of children with autism. Still two possible inferences might be drawn from the existing literature in order to explain this finding. First, Gray (2006) conducted a crucial longitudinal study in order to evaluate the possible changes in coping strategies of mothers of children with autism. He primarily based his study on the assumption of Lazarus (1996), which refers to a general tendency for younger individuals to use more problem-focused coping strategies. According to this assumption, as one grows older, use of emotion-focused coping strategies increases. Gray (2006) proposed to test this assumption with the implementation of a 10-year longitudinal study on parents of children with autism and aimed to question whether the same kind of shift appeared for parents of children with autism. This study concluded that

coping strategies for this group of parents have changed over time along with the problems they face while they and their child were getting older. Consistent with the assumption of Lazarus (1996), coping strategies of parents of children with autism are less problem-focused and more emotion-focused. When the characteristics of the current study are investigated in terms of differences of ages of mothers and children between two sample groups, it is possible to see a slight difference. While the mean age of mothers and children from Turkey are 33.21 years (SD =4.32) and 52.05 months (SD = 16.13), respectively, for the U.S. sample the mean ages are 36.40 years (SD = 5.23) for mothers and 66.67 months (SD = 13.38) for children. As seen from these values, the mean ages of mothers and children with autism from the U.S. are higher than those from Turkey. However, Gray (2006) was able to see the proposed shift within a 10-year period for the parents of children with autism. For this reason, drawing on Gray's finding, it does not seem plausible to make a connection with the findings of the present study. Lastly, since emotion-focused coping strategies are usually found to negatively affect psychological well-being of parents of children with developmental disabilities, the finding of positive association of emotion-focused coping strategy to predict family flexibility was unexpected. However, the evidence for family flexibility associates seems to be very limited in the literature. For this reason, some of the components of emotion-focused coping strategy might have contributed to higher family flexibility within family unit and might deserve further attention.

Finally, for both groups of mothers in this study, social support variable was found to be positively related to higher family cohesion and flexibility. Since separate measures were used for assessing the social support levels of mothers, this finding should be evaluated with caution. While the measure used for mothers from the U.S. primarily aims to assess the satisfaction degree of social support from several resources in one's life, the question set applied to the Turkish mothers focused on the possible social support sources specific to the families of children with disabilities. For this reason, evaluating the predictor values of social support on family functioning processes as done for parenting stress and coping variables for the current study could not be possible. According to the relevant literature, social support has a considerable effect of alleviating stress levels of mothers of children with developmental disabilities and has positively associated with parental well-being (Boyd, 2002; Dunst, Trivette, & Cross, 1986; Sharpley et al., 1997). The only possible assumption that can be made for both groups of mothers of children with autism in the current study is that the parenting stress and coping related variables do not lose their significance as predictive value on family cohesion and flexibility for both groups of mothers.

6.3 Limitations of the Study

The sampling and recruitment method of the present study may have yielded some sort of selection bias, which may be considered as one of the limitations of the study. Since the mothers of children with autism have been reached through developmental disabilities centers, special education centers,

and some web-based autism research networks, all families have had some sort of support either in terms of social support or professional special education services. Mothers who are not aware of or who do not use these services could not been included in the present study. Moreover, since the participants of in this study were based on volunteer inclusion, it is not possible to have an idea on the characteristics of those who were not willing to participate. In other words, either group of mothers who could not be included in the present study may have some different adjustment problems. In addition, the sample is generally composed of higher educated families. This may also be a result of the aforementioned selection bias. Further research which aims to reach out to mothers of children with autism independent from these limitations may improve the generalization of presented results of the current study.

Despite the current study was conducted with mothers of a clinical sample, the diagnoses of these children could not be investigated by the researcher of this study. This may emerge as a possible limitation of this study. However, some important precautions have also been made in order to minimize this limitation. For both Turkey and the U.S. parts of the present study, inclusion criteria have been strictly set during the recruitment procedure to be able to reach the desired sample groups. Moreover, for Turkey part, only the special education centers, the main aim of which are to give education services to children with autism, have been included and all of participating mothers were selected based on the help of education directors of each center. In a similar vein, for the U.S. part of the study, after determining the most

prominent centers and associations specialized on autism, direct contacts were established with the responsible persons and mothers who met the inclusion criteria were directly contacted via the centers' available databases and were then sent recruitment letters.

The method of the study is based on the cross-sectional design that is one of the methods classified under case-control designs. Despite some of the important advantages of this design such as dependance on correlational relations and being time and cost efficient, it also has some considerable disadvantages. The direction of the relationship is not usually provided by cross-sectional design, for this reason, causality is not possible to determine (Kazdin, 1998). Future research might use cross-sequential or longitudinal methods. Although the causality problem still exists within these methods, either the inclusion of older children with autism or an examination of the proposed aims of the current study longitudinally may help strengthen the findings of the study and may increase generalizability.

6.4 Suggestions of Possible Directions for the Future Research

For future research, to increase the relatively small sample size of the present study may provide to include additional variables, to apply more complex statistical models and in turn to increase the generalizability of the findings. Further research with a larger sample examining family functioning processes of families of a child with autism is warranted.

The findings of the study pointed to different coping styles used by mothers of children with autism from different cultures. Relevant literature also

suggests that coping styles have a tendency to shift over time (Lazarus, 1996; Gray, 2006). Since the method of the study was based on the cross-sectional design, it has not been possible to observe any changes in coping strategies for the current study. Along with this previous assumption, future longitudinal research may utilize to observe any changes in coping strategies used by mothers of children with autism. Apart from longitudinal research, inclusion of some other comparison groups, such as mothers of children with other developmental disorders, or mothers of children with some chronic disorders, are also warranted for the further research in order to see the unique effect of a having a child with autism.

6.5 Implications of the Study for Research Applications and Clinical Settings

Along with the present study, the reliability and validity analyses two measures, namely Flexibility and Cohesion Evaluation Scales IV (FACES IV; Olson et al., 2004) and Parenting Stress Index / Short Form (PSI/SF; Abidin 1995) were conducted in order to obtain the Turkish version of these measures. Since the sampling properties and method of these studies were designed as in the original version of the measures, they turned out to be appropriate tools for the entire relevant scientific research applications. In addition, these measures originally were not only developed for research purposes, but also for the clinical settings. For this reason, the possible implication of the measures would be pervasive.

This study has also important implications on coping literature. Cultural differences in terms of coping strategies have long been discussed within the related literature. Although there have been assumed to be some sort of cultural tendencies on coping strategies (Lazarus, 1993), research focusing on families of children with autism also point out to the specific coping strategies which these families tend to use to deal with the stressful situations (e.g., Hasting et al., 2005; Orr et al., 1991; Sivberg, 2002). According to the relevant literature, the severeness of the child's problem behaviors makes parents to use less problem-fosuced and more emotion-focused coping strategies which in turn may lead to higher parental distress. In line with the existing literature, the findings of the current study has a potential to yield important implications and to shed light to further research by outlining the predictors of overall family health. Moreover, to the knowledge of the author, this study was the first to investigate the predictors of family cohesion and flexibility for the families of children with autism among Turkish sample and the first cross-cultural comparative study conducted in Turkey in this respect. Given this unique quality of the present study, the findings on both the predictors and comparison would also shed light not only to other cross-cultural studies but also to studies conducted in multicultural societies.

While problem-focused coping was found to predict family cohesion for mothers of children with autism from Turkey, indirect coping predicted family cohesion for mothers from the U.S. This finding has also some possible implications regarding the improvement of the existing intervention programs

and the development of the new ones. Since the concept of cohesion is an important indicator of family health (Olson & Gorall, 2003; Gorall et al., 2004), related components which have association with the increase of cohesion would become crucial in terms of improving and developing intervention programs for parents of children with autism.

6.6 Conclusion

The aim of the study was first to compare mothers of children with autism from Turkey and the U.S. regarding parenting stress, coping strategies, and family functioning variables and then to investigate the predictors of family cohesion and flexibility separately for mothers from Turkey and the U.S.

Consistent with the existing literature, two groups of mothers, who had a child with autism, were found to experience similar parenting stress levels. Despite originating from different cultural backgrounds, having hightened stress levels for both groups of mothers could be explained by distinct nature of autism and the sample characteristics of the current study. On the other hand, the study has yielded somewhat different findings other than the relevant literature regarding coping strategies which mothers of children with autism from Turkey and the U.S. tend to use to deal with the stressors. Different from the expectations, mothers of children with autism from Turkey tended to use significantly more problem-focused coping strategies than their counterparts from the U.S. Use of more problem-focused coping strategies for Turkish mothers of children with autism might be due to the urge of taking action

directly for the problem situation along with the heightened awareness of the importance of early education against the limited resources in Turkey.

In terms of the predictors of family cohesion and flexibility, the most outstanding finding of the study was to find out different predictors regarding coping strategies for mothers of children with autism from Turkey and the U.S. While problem-focused coping appeared as a predictor of family cohesion and flexibility for Turkish mothers of children with autism, indirect coping predicted family cohesion and flexibility for American mothers. Since cohesion and flexibility are considered the primary indicators of family health in general, outlining the predictors of these concepts in terms of coping strategies for two countries, Turkey and the U.S., which have been assumed to have different cultural norms and values would inevitably have crucial implications both for researchers and clinicians.

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APPENDIX A

DEMOGRAPHIC INFORMATION FORM

Bugünün tarihi: ____/____/_2008_ **Sizin yaşınız:** _____ **Eşinizin yaşı:** _____
Gün Ay Yıl

Eğitim düzeyiniz:	**Eşinizin eğitim düzeyi:**
□ Okuma yazması yok	□ Okuma yazması yok
□ Okur Yazar	□ Okur Yazar
□ İlkokul mezunu	□ İlkokul mezunu
□ Ortaokul mezunu	□ Ortaokul mezunu
□ Lise mezunu	□ Lise mezunu
□ Yüksek okul	□ Yüksek okul
□ Üniversite mezunu	□ Üniversite mezunu
□ İleri derece (Yüksek Lisans)	□ İleri derece (Yüksek Lisans)
□ İleri derece (Doktora)	□ İleri derece (Doktora)
□ Diğer (açıklayınız)_____	□ Diğer (açıklayınız)_____
Mesleğiniz: _____	**Eşinizin mesleği:** _____
□ Şu anda çalışıyorum	□ Şu anda çalışıyorum
□ Şu anda çalışmıyorum	□ Şu anda çalışmıyorum

Medeni Durumunuz:

□ Evli, ilk evlilik (resmi nikah__; imam nikahı__)	□ Bekar, boşanmış
□ Evli, ilk evlilik değil (resmi nikah__; imam nikahı__)	□ Bekar, ayrı yaşıyor
□ Evli değil, eşiyle birlikte yaşıyor	□ Bekar, dul

Aşağıdaki soruları eşinizi ve çocuklarınızı (çekirdek ailenizi) düşünerek cevaplandırınız:

Ailenizdeki Çocuk Sayınız:

□ Bir	□ Üç	□ Beş
□ İki	□ Dört	□ Altı veya üstü

Aile Yapınız:

□ Anne (siz), Baba (eşiniz), Çocuk(lar) (öz çocuklarınız)
□ Anne (siz), Baba (eşiniz), Çocuk(lar) (anne ve babadan en az biri üvey)
□ Anne (siz), Baba (eşiniz), Çocuk(lar) (çocuk(lar) evlatlık)
□ Bir ebeveyn, Çocuklar (anne ya da baba vefat etmiş)

Siz ya da eşiniz birden çok evlilik yaptınız mı?
□ Evet □ Hayır

Cevabınız evet ise:

	Ortak çocuklarınız			**Eşinizin çocukları**			**Sizin çocuklarınız**		
	Yaş	**Cinsiyet**	**Birlikte mi yaşıyorsunuz?**	**Yaş**	**Cins.**	**Birl. mi yaş.?**	**Yaş**	**Cins.**	**Birl. mi yaş.?**
1. çocuk			□ Evet □ Hayır			□ Evet □ Hayır			□ Evet □ Hayır
2. çocuk			□ Evet □ Hayır			□ Evet □ Hayır			□ Evet □ Hayır
3. çocuk			□ Evet □ Hayır			□ Evet □ Hayır			□ Evet □ Hayır
4. çocuk			□ Evet □ Hayır			□ Evet □ Hayır			□ Evet □ Hayır
5. çocuk			□ Evet □ Hayır			□ Evet □ Hayır			□ Evet □ Hayır

Ailenizin Gelir Düzeyi:
□ 500 TL'nin altı □ 1-1.500 TL □ 2-2.500 TL □ 3-4.000 TL
□ 500-1.000 TL □ 1.5-2.000 TL □ 2.5-3.000 TL □ 4.000 TL'nin üstü

Evde toplam kaç kişi yaşıyorsunuz?_____
(a) Aşağıda verilen aile üyelerinden hangileri evde sizinle ve otizm tanısı olan çocuğunuzla birlikte yaşıyor? Lütfen uygun olanların hepsini işaretleyiniz:

□ Anne
□ Baba
□ Kardeşler
□ Teyze/Dayı/Hala/Amca
□ Anneanne/Dede (sizin ve/veya eşinizin anne ve/veya babası)
□ Bakıcı/Yardımcı
□ Diğer akrabalar (lütfen belirtiniz_____)

Aşağıdaki soruları **otizm tanısı almış çocuğunuzu düşünerek** cevaplandırınız:

**** Eğer birden fazla çocuğunuz otizm tanısı almış ise lütfen çocuğa ilişkin soruları en çok sorun yaşadığınız çocuğunuzu düşünerek vevaplandırınız****

Çocuğunuzun adı, soyadı:_____ _____

Çocuğunuzun yaşı: ____/____/_____
Gün Ay Yıl

Çocuğunuzun cinsiyeti: □ Kız □ Erkek

Otizm tanısı alan başka çocuğunuz var mı?
□ Evet, otizm tanısı alan birden fazla çocuğum var □ Hayır

Çocuğunuzun otizm tanısını ne zaman öğrendiniz?
Çocuğum _____ yaşındayken öğrendim.

Çocuğunuz kaç yıldır/aydır özel eğitime devam ediyor? _____yıl _____ay

Çocuğunuz ilaç tadavisi görüyor mu?
□ Evet, sürekli ilaç kullanıyor (ne kadar zamandır belirtiniz_____yıl____ay
□ Evet, ara ara ilaç kullanıyor
□ Hayır, hiç ilaç kullanmadı

* * * * *

LÜTFEN İLİŞİKTEKİ ANKETLERİN TÜMÜNÜ "OTİZM" TANISI ALMIŞ ÇOCUĞUNUZU DÜŞÜNEREK YANITLAYINIZ

* * * * *

APPENDIX B

FLEXIBILITY AND COHESION EVALUATION SCALES IV

(FACES IV)

FACES IV Questionnaire

Directions to Family Members:

1. All family members over the age 12 can complete FACES IV.
2. Family members should complete the instrument independently, not consulting or discussing their responses until they have been completed.
*3. Fill in the corresponding **number** in the space on the provided answer sheet.*

The Response Key for Balanced Cohesion, Balanced Flexibility, Disengaged, Enmeshed, Rigid, and Chaotic Subscales:

1	2	3	4	5
DOES NOT describes our family at all	**SLIGHTLY describes our family**	**SOMEWHAT describes our family**	**GENERALLY describes our family**	**VERY WELL describes our family**

Sample Items of Balanced Cohesion Subscale:

Family members feel very close to each other.
Family members consult other family members on personal decisions.

Sample Items of Balanced Flexibility Subscale:

Our family tries new ways of dealing with problems.
We shift household responsibilities from person to person.

Sample Items of Disengaged Subscale:

Family members seem to avoid contact with each other when at home.
Family members know very little about the friends of other family members.

Sample Items of Enmeshed Subscale:

Family members feel pressured to spend most free time together.
Family members have little need for friends outside the family.

Sample Items of Rigid Subscale:

There are severe consequences when a family member does something wrong.
Once a task is assigned to a member, there is little chance of changing it.

Sample Items of Chaotic Subscale:

We need more rules in our family.
It is unclear who is responsible for things (chores, activities) in our family.

The Response Key for Family Communication Subscale:

1	2	3	4	5
DOES NOT describes our family at all	**SLIGHTLY describes our family**	**SOMEWHAT describes our family**	**GENERALLY describes our family**	**VERY WELL describes our family**

Sample Items of Family Communication Subscale:

Family members are able to ask each other for what they want.
When family members ask questions of each other, they get honest answers.

The Response Key for Family Satisfaction Subscale:

1	2	3	4	5
Very Dissatisfied	**Somewhat Dissatisfied**	**Generally Dissatisfied**	**Very Satisfied**	**Extremely Satisfied**

Sample Items of Family Satisfaction Subscale:

The degree of closeness between family members.
Family members concern for each other.

APPENDIX C

FLEXIBILITY AND COHESION EVALUATION SCALES IV

(FACES IV)

(AİLE) ESNEKLİK VE BAĞLILIK DEĞERLENDİRME ÖLÇEĞİ IV

FACES IV Anketi

Aile Üyeleri için Yönergeler:

1. 12 yaşın üzerindeki tüm aile üyeleri FACES IV'ü cevaplandırabilir.
2. Aile üyeleri anketi tek başlarına cevaplandırmalıdırlar; anketi tamamlayana kadar, birbirlerine danışmamalı veya sorulara verdikleri yanıtları tartışmamalıdırlar.
*3. Aşağıda verilen ölçek üzerindeki uygun cevaba karşılık gelen **sayıyı**, bir önceki sayfada verilen cevap bölümündeki uygun boşluklara doldurunuz.*

The Response Key for Balanced Cohesion, Balanced Flexibility, Disengaged, Enmeshed, Rigid, and Chaotic Subscales:

1	2	3	4	5
Ailemizi **HİÇ BİR ŞEKİLDE ANLATMAZ**	Ailemizi **HAFİFÇE ANLATIR**	Ailemiz **BİRAZ ANLATIR**	Ailemizi **GENEL OLARAK ANLATIR**	Ailemizi **ÇOK İYİ ANLATIR**

Sample Items of Balanced Cohesion Subscale:

Aile üyeleri kendilerini birbirlerine çok yakın hissederler.
Aile üyeleri kişisel kararlar alırken diğer aile üyelerine danışırlar.

Sample Items of Balanced Flexibility Subscale:

Ailemiz sorunlarla başa çıkabilmek için yeni yollar dener.
Ev içinde yapılması gereken işleri dönüşümlü olarak yaparız.

Sample Items of Disengaged Subscale:

Aile üyeleri evdeyken sanki birbirleriyle temas kurmaktan kaçınıyormuş gibi görünürler.
Aile üyeleri diğer aile üyelerinin arkadaşları hakkında çok az şey bilirler.

Sample Items of Enmeshed Subscale:

Aile üyeleri üzerlerinde, boş zamanlarının çoğunu birlikte geçirme baskısını hissederler.
Aile üyelerinin aile dışından arkadaşlara pek ihtiyaçları yoktur.

Sample Items of Rigid Subscale:

Bir aile üyesi yanlış bir şey yaptığında bunun ağır sonuçları olur.
Aile içinde bir görev bir üyeye verildiğinde, bunu değiştirme şansı çok azdır.

Sample Items of Chaotic Subscale:

Aile içinde daha fazla kurala ihtiyacımız var.
Ailemizde rutin işlerden (günlük evişleri, aktiviteler) kimin sorumlu olduğu belirsizdir.

The Response Key for Family Communication Subscale:

1	2	3	4	5
Ailemizi **HİÇ BİR ŞEKİLDE ANLATMAZ**	Ailemizi **HAFİFÇE ANLATIR**	Ailemiz **BİRAZ ANLATIR**	Ailemizi **GENEL OLARAK ANLATIR**	Ailemizi **ÇOK İYİ ANLATIR**

Sample Items of Family Communication Subscale:

Aile üyeleri istedikleri şeyleri birbirlerinden rica edebilirler.
Aile üyeleri birbirleri hakkında sorular sorduğunda, dürüst cevaplar alırlar.

The Response Key for Family Satisfaction Subscale:

1	2	3	4	5
Çok Tatminsiz	Biraz Tatminsiz	Genel Olarak Tatminsiz	Çok Tatmin Edici	Fazlasıyla Tatmin Edici

Sample Items of Family Satisfaction Subscale:

Aile üyeleri arasındaki yakınlık derecesi
Aile üyelerinin birbirleri hakkındaki ilgi ve alakaları

APPENDIX D

MCMASTER FAMILY ASSESSMENT DEVICE (MMFAD)

(AİLE DEĞERLENDİRME ÖLÇEĞİ)

Lütfen aşağıdaki ölçeği kullanarak verilen ifadelerin size ne kadar uygun olduğunu, her ifadenin altındaki boşluğa (X) işareti koyarak belirtiniz.

CÜMLELER	Aynen katılıyorum	Büyük ölçüde katılıyorum	Biraz katılıyorum	Hiç katılmıyorum
1. Ailece ev dışında program yapmakta güçlük çekeriz, çünkü aramızda fikir birliği sağlayamayız.				
2. Günlük hayatımızdaki sorunların (problemlerin) hemen hepsini aile içinde hallederiz.				
3. Evde biri üzgün ise, diğer aile üyeleri bunun nedenini bilir.				
4. Bizim evde, kişiler verilen her görevi düzenli bir şekilde yerine getirmezler.				
5. Evde birinin başı derde girdiğinde, diğerleri de bunu kendilerine fazlasıyla dert ederler.				
6. Bir sıkıntı ve üzüntü ile karşılaştığımızda, birbirimize destek oluruz.				
7. Ailemizde acil bir durum olsa, şaşırıp kalırız.				
8. Bazen evde ihtiyacımız olan şeylerin bittiğinin farkına varmayız.				
9. Birbirimize karşı olan sevgi, şefkat gibi duygularımızı açığa vurmaktan kaçınırız.				
10. Gerektiğinde aile üyelerine görevlerini hatırlatır, kendilerine düşen işi yapmalarını sağlarız.				
11. Evde dertlerimizi, üzüntülerimizi birbirimize söylemeyiz.				
12. Sorunlarımızın çözümünde genellikle ailece aldığımız kararları uygularız.				

CÜMLELER	Aynen katılıyorum	Büyük ölçüde katılıyorum	Biraz katılıyorum	Hiç katılmıyorum
13. Bizim evdekiler, ancak onların hoşuna giden şeyler söylediğinizde sizi dinlerler.				
14. Bizim evde bir kişinin söylediklerinden, ne hissettiğini anlamak pek kolay değildir.				
15. Ailemizde eşit bir görev dağılımı yoktur.				
16. Ailemiz üyeleri, birbirlerine hoşgörülü davranırlar.				
17. Evde herkes, başına buyruktur.				
18. Bizim evde herkes, söylemek istediklerini üstü kapalı değil de doğrudan birbirlerinin yüzüne söyler.				
19. Ailede bazılarımız duygularımızı belli etmeyiz.				
20. Acil bir durumda ne yapacağımızı biliriz.				
21. Ailecek, korkularımızı ve endişelerimizi birbirimizle tartışmaktan kaçınırız.				
22. Sevgi, şefkat gibi olumlu duygularımızı birbirimize belli etmekte güçlük çekeriz.				
23. Gelirimiz (ücret, maaş) ihtiyacımızı karşılamaya yetmiyor.				
24. Ailemiz, bir problemi çözdükten sonra, bu çözümün işe yarayıp yaramadığını tartışır.				
25. Bizim ailede herkes kendini düşünür.				
26. Duygularımızı birbirimize açıkça söyleyebiliriz.				
27. Evimizde banyo ve tuvalet bir türlü temiz durmaz.				
28. Aile içinde birbirimize sevgimizi göstermeyiz.				
29. Evde herkes her istediğini birbirinin yüzüne söyleyebilir.				
30. Ailemizde, her birimizin belirli görev ve sorumlulukları vardır.				
31. Aile içinde genellikle birbirimizle pek iyi geçinmeyiz.				
32. Ailemizde sert-kötü davranışlar ancak belli durumlarda gösterilir.				

CÜMLELER	Aynen katılıyorum	Büyük ölçüde katılıyorum	Biraz katılıyorum	Hiç katılmıyorum
33. Ancak hepimizi ilgilendiren bir durum olduğu zaman birbirimizin işine karışırız.				
34. Aile içinde birbirimizle ilgilenmeye pek zaman bulamıyoruz.				
35. Evde genellikle söylediklerimizle söylemek istediklerimiz birbirinden farklıdır.				
36. Aile içinde birbirimize hoşgörülü davranırız.				
37. Evde birbirimize, ancak sonunda kişisel bir yarar sağlayacaksa ilgi gösteririz.				
38. Ailemizde bir dert varsa, kendi içimizde hallederiz.				
39. Ailemizde sevgi, şefkat gibi güzel duygular ikinci plandadır.				
40. Ev işlerinin kimin tarafından yapılacağını hep birlikte konuşarak kararlaştırırız.				
41. Ailemizde herhangi bir şeye karar vermek her zaman sorun olur.				
42. Bizim evdekiler sadece bir çıkarları olduğu zaman birbirlerine ilgi gösterirler.				
43. Evde birbirimize karşı açık sözlüyüzdür.				
44. Ailemizde hiçbir kural yoktur.				
45. Evde birinden bir şey yapması istendiğinde mutlaka takip edilmesi ve kendisine hatırlatılması gerekir.				
46. Aile içinde, herhangi bir sorunun (problemin) nasıl çözüleceği hakkında kolayca karar verebiliriz.				
47. Evde kurallara uyulmadığı zaman ne olacağını bilmeyiz.				
48. Bizim evde aklınıza gelen her şey olabilir.				
49. Sevgi, şefkat gibi olumlu duygularımızı birbirimize ifade edebiliriz.				
50. Ailede her türlü problemin üstesinden gelebiliriz.				

CÜMLELER	Aynen katılıyorum	Büyük ölçüde katılıyorum	Biraz katılıyorum	Hiç katılmıyorum
51. Evde birbirimizle pek iyi geçinemeyiz.				
52. Sinirlenince birbirimize küseriz.				
53. Ailede bize verilen görevler pek hoşumuza gitmez, çünkü genelde umduğumuz görevler verilmez.				
54. Kötü bir niyetle olmasa da evde birbirimizin hayatına çok karışıyoruz.				
55. Ailemizde kişiler herhangi bir tehlike karşısında (yangın, kaza gibi) ne yapacaklarını bilirler, çünkü böyle durumlarda ne yapılacağı, aramızda konuşulmuş ve belirlenmiştir.				
56. Aile içinde birbirimize güveniriz.				
57. Ağlamak istediğimizde, birbirimizden çekinmeden rahatlıkla ağlayabiliriz.				
58. İşimize yetişmekte güçlük çekiyoruz.				
59. Aile içinde birisi, hoşlanmadığımız bir şey yaptığında ona bunu açıkça söyleriz.				
60. Problemlerimizi çözmek için ailecek çeşitli yollar bulmaya çalışırız.				

APPENDIX E

PARENTING STRESS INDEX / SHORT FORM (PSI/SF)

PSI Short Form

Instructions

This questionnaire contains 36 statements. Read each statement carefully. For each statement, please focus on the child you are about, and circle the response that best represents your opinion.

Circle the SA if you strongly agree with the statement.

Circle the A if you agree with the statement.

Circle the NS if you are not sure

Circle the D if you disagree with the statement

Circle the SD if you strongly disagree with the statement

For example, if you sometimes enjoy going to the movies, you would circle A in response to the following statement:

I enjoy going to the movies. SA (A) NS D SD

While you may not find a response that exactly states your feelings, please circle the response that comes closest to describing hoe you feel. YOUR FIRST REACTION TO EACH QUESTION SHOULD BE YOUR ANSWER.

Circle only one response for each statement, and respond to all statements. **DO NOT ERASE!** If you need to change an answer, make an "X" through the incorrect response. For example:

I enjoy going to the movies. SA A NS (D) (SD)

Before responding to the statements, write your name, gender, date of birth, ethnic group, marital status, child's name, child's gender, child's date of birth, and today's date in the spaces at the top of the questionnaire.

Sample Items of Parental Distress Subscale:

I feel trapped by my responsibilities as a parent.
Since having a child, I feel that I am almost never able to to things that I like to do.

Sample Items of Parent-Child Dysfunctional Interaction Subscale:

Sometimes I feel my child doesn't like me and doesn't want to be close to me.
When I do things for my child, I get the feeling that my efforts are not appreciated very much.

Sample Items of Difficult Child Subscale:

My child seems to cry or fuss more often than most children.
My child reacts very strongly when something happens that my child doesn't like.

APPENDIX F

PARENTING STRESS INDEX / SHORT FORM (PSI/SF)

(EBEVEYN STRES İNDEKSİ / KISA FORM)

PSI Kısa Form

Yönergeler

Bu anket 36 ifade içermektedir. Her ifadeyi dikkatlice okuyunuz. Lütfen, her ifade için, en çok endişe duyduğunuz çocuğunuza odaklanınız ve düşüncenizi en iyi temsil eden yanıtı yuvarlak içine alınız.

İfadeye kuvvetli bir şekilde katılıyorsanız, **1**'i yuvarlak içine alınız.

İfadeye katılıyorsanız, **2**'yi yuvarlak içine alınız.

Emin değilseniz, **3**'ü yuvarlak içine alınız.

İfadeye karşıysanız, **4**'ü yuvarlak içine alınız.

İfadeye kuvvetli bir şekilde karşıysanız, **5**'i yuvarlak içine alınız.

Örneğin, eğer bazı zamanlar sinemaya gitmekten zevk alıyorsanız, aşağıdaki ifadeye yanıt olarak **2**'yi yuvarlak içine alacaksınız:

Sinemaya gitmekten zevk alırım. **1** (**2**) **3** **4** **5**

Hislerinizi tam olarak ifade eden bir yanıt bulamıyor bile olsanız, lütfen nasıl hissettiğinizi tanımlamaya en yakın olan yanıtı yuvarlak içine alınız. HER SORU İÇİN AKLINIZA GELEN İLK TEPKİ SİZİN CEVABINIZ OLMALIDIR.

Her ifade için yalnız bir yanıtı yuvarlak içine alınız ve anketteki bütün ifadelere, hiç bir ifadeyi atlamadan yanıt veriniz. YANITLARINIZI SİLMEYİNİZ! Eğer herhangi bir ifade için verdiğiniz cevabı değiştirmeniz gerekiyorsa, yanlış cevabın üzerine "X" işareti koyunuz ve onun yerine doğru olduğunu düşündüğünüz yanıtı yuvarlak içine alınız. Örneğin:

Sinemaya gitmekten zevk alırım. **1** **2** **3** ~~**4**~~ (**5**)

Anketi yanıtlamaya başlamadan önce, isminizi, cinsiyetinizi, doğum tarihinizi, medeni durumunuzu, çocuğunuzun ismini, çocuğunuzun cinsiyetini, çocuğunuzun doğum tarihini ve bugünün tarihini soru formunun üst kısmında ayrılan boşluklara yazınız.

Sample Items of Parental Distress Subscale:

Kendimi, ebeveyn olarak, sorumluluklarım tarafından kıstırılmış hissediyorum.
Bir çocuğum olduğundan beri, önceden yapmaktan hoşlandığım şeyleri neredeyse hiç bir zaman yapmayı beceremediğimi hissediyorum.

Sample Items of Parent-Child Dysfunctional Interaction Subscale:

Bazen çocuğumun benden hoşlanmadığını ve bana yakın olmak istemediğini hissediyorum.
Çocuğum için bir şeyler yaptığım zaman, çabalarımın çok fazla takdir görmediği hissine kapılırım.

Sample Items of Difficult Child Subscale:

Çocuğum çoğu çocuktan daha sık ağlıyor veya mızmızlanıyor gibi geliyor.
Çocuğum hoşlanmadığı bir olay olduğu zaman çok güçlü tepki gösterir.

APPENDIX G

STRENGTHS AND DIFFICULTIES QUESTIONNAIRE (SDQ)

(GÜÇLER VE GÜÇLÜKLER ANKETİ)

Her cümle için, **Doğru Değil, Kısmen Doğru** veya **Kesinlikle Doğru** kutularından birini işaretleyiniz. Kesinlikle emin olamasanız ya da size anlamsız görünse de elinizden geldiğince tüm cümleleri yanıtlamanız bize yardımcı olacaktır. Lütfen yanıtlarınızı çocuğunuzun son 6 ay içindeki davranışlarını göz önüne alarak veriniz.

Çocuğunuzun Adı: …… Kız / Erkek
Doğum Tarihi: ……

	Doğru Değil	**Kısmen Doğru**	**Kesinlikle Doğru**
Diğer insanların duygularını önemser.	□	□	□
Huzursuz, aşırı hareketli, uzun süre kıpırdamadan duramaz.	□	□	□
Sıkça baş ağrısı, karın ağrısı ve bulantıdan yakınır.	□	□	□
Diğer çocuklarla kolayca paylaşır (yiyecek, oyuncak, kalem vs.).	□	□	□
Sıkça öfke nöbetleri olur ya da aşırı sinirlidir.	□	□	□
Daha çok tek başınadır, yalnız oynama eğilimindedir.	□	□	□
Genellikle söz dinler, erişkinlerin isteklerini yapar.	□	□	□
Birçok kaygısı vardır. Sıkça endişeli görünür.	□	□	□
Eğer birisi incinmiş, morali bozulmuş ya da kendini kötü hissediyor ise ona yardımcı olur.	□	□	□
Sürekli elleri ayakları kıpır kıpırdır ya da oturduğu yerde kıpırdanıp durur.	□	□	□
En az bir yakın arkadaşı vardır.	□	□	□
Sıkça diğer çocuklarla kavga eder ya da onlarla alay eder.	□	□	□
Sıkça mutsuz, kederli ya da ağlamaklıdır.	□	□	□
Genellikle diğer çocuklar tarafından sevilir.	□	□	□
Dikkati kolayca dağılır. Yoğunlaşmakta güçlük çeker.	□	□	□
Yeni ortamlarda gergin ya da huysuzdur. Kendine güvenini kolayca kaybeder.	□	□	□
Kendinden küçüklere iyi davranır.	□	□	□
Sıkça yalan söyler ya da hile yapar.	□	□	□
Diğer çocuklar ona takarlar ya da onunla alay ederler.	□	□	□
Sıkça başkalarına (anne, baba, öğretmen, diğer çocuklar) yardım etmeye istekli olur.	□	□	□
Birşeyi yapmadan önce düşünür.	□	□	□
Ev, okul ya da başka yerlerden çalar.	□	□	□
Erişkinlerle çocuklardan daha iyi geçinir.	□	□	□
Pek çok korkusu vardır. Kolayca ürker.	□	□	□
Başladığı işi bitirir, dikkat süresi iyidir.	□	□	□

APPENDIX H

WAYS OF COPING QUESTIONNAIRE (WAYS)

Instructions

To respond to the statements in this questionnaire, you must have a specific stressful situation in mind. Take a few moments and think about the most stressful situation that you have experienced in the past *week.*

By "stressful" we mean a situation that was difficult or troubling for you, either because you felt distressed about what happened, or because you had to use considerable effort to deal with the situation. The situation may have involved your family, your job, your friends, or something else important to you. Before responding to the statements, think about the details of this stressful situation, such as where it happened, who was involved, how you acted, and why it was important to you. While you may still be involved in the situation, or it could have already happened, it should be the most stressful situation that you experienced during the week.

As you respond to each of the statements, please keep this stressful situation in mind. **Read each statement carefully and indicate, by circling 0, 1, 2, or 3, to what extent you used it in the situation.**

Key: **0** = Does not apply or not used **1** = Used somewhat
2 = Used quite a bit **3** = Used a great deal

Sample Items of Emotion-Focused Coping Subscale:

I came out of the experience better than when I went in.
Wished that the situation would go away or somehow be over with.

Sample Items of Problem-Focused Coping Subscale:

I knew what had to be done, so I doubled my efforts.
I did something which I didn't think would work, but at least I was doing something.

Sample Items of Indirect Coping Subscale:

Talked to someone to find out more about the situation.
I got professional help.

APPENDIX I

WAYS OF COPING QUESTIONNAIRE (WAYS)

(BAŞETME YOLLARI ÖLÇEĞİ)

AÇIKLAMA

Bir ebeveyn olarak otizm tanısı almış olan çocuğunuzu yetiştirirken çeşitli sorunlarla karşılaşıyor ve bu sorunlarla başa çıkabilmek için çeşitli duygu, düşünce ve davranışlardan yararlanıyor olabilirsiniz.

Bu ankette sizden istenen, çocuğunuzla yaşadığınız ve sizin için zor bir anı düşünüp, karşılaştığınız bu tür sorunlarla başa çıkabilmek için neler yaptığınızı göz önünde bulundurarak aşağıdaki ifadeleri yanıtlamanızdır.

Lütfen her bir maddeyi dikkatle okuduktan sonra maddelerin yanında verilen 1'den 5'e kadar olan yanıtlardan sizin duygu, düşünce ve davranışlarınızı en iyi temsil eden yanıta uygun gelen şıklardan birini yuvarlak içine alarak yanıtınızı belirtiniz. Başlamadan önce örnek maddeyi incelemeniz yararlı olacaktır.

	Hiç uygun değil	**Pek uygun değil**	**Uygun**	**Oldukça uygun**	**Çok uygun**
Madde 4. İyimser olmaya çalışırım.	…1…..…..2……3……(4)…..…5…				

		Hiç uygun değil	**Pek uygun değil**	**Uygun**	**Oldukça uygun**	**Çok uygun**
1.	Aklımı kurcalayan şeylerden kurtulmak için değişik işlerle uğraşırım…….....….....1……..2……3…….4……..5…					
2.	Bir sıkıntım olduğunu kimsenin bilmesini istemem……..…1……..2……3…….4……..5…					
3.	Bir mucize olmasını beklerim…….……...…..…1……..2……3…….4……..5…					
4.	İyimser olmaya çalışırım……..……1……..2……3…….4……..5…					
5.	"Bunu da atlatırsam sırtım yere gelmez" diye düşünürüm…..……..…1……..2……3…….4……..5…					

		Hiç uygun değil	Pek uygun değil	Uygun	Oldukça uygun	Çok uygun
6.	Çevremdeki insanlardan problemi çözmede bana yardımcı olmalarını beklerim	1	2	3	4	5
7.	Bazı şeyleri büyütmemeye üzerinde durmamaya çalışırım	1	2	3	4	5
8.	Sakin kafayla düşünmeye ve öfkelenmemeye çalışırım	1	2	3	4	5
9.	Bu sıkıntılı dönem bir an önce geçsin isterim	1	2	3	4	5
10.	Olayın değerlendirmesini yaparak en iyi kararı vermeye çalışırım	1	2	3	4	5
11.	Konuyla ilgili olarak başkalarının ne düşündüğünü anlamaya çalışırım	1	2	3	4	5
12.	Problemin kendiliğinden hallolacağına inanırım	1	2	3	4	5
13.	Ne olursa olsun kendimde direnme ve mücadele etme gücü hissederim	1	2	3	4	5
14.	Başkalarının rahatlamama yardımcı olmalarını beklerim	1	2	3	4	5
15.	Kendime karşı hoşgörülü olmaya çalışırım	1	2	3	4	5
16.	Olanları unutmaya çalışırım	1	2	3	4	5
17.	Telaşımı belli etmemeye ve sakin olmaya çalışırım	1	2	3	4	5
18.	"Başa gelen çekilir" diye düşünürüm	1	2	3	4	5
19.	Problemin ciddiyetini anlamaya çalışırım	1	2	3	4	5
20.	Kendimi kapana sıkışmış gibi hissederim	1	2	3	4	5
21.	Duygularımı paylaştığım kişilerin bana hak vermesini isterim	1	2	3	4	5
22.	Hayatta neyin önemli olduğunu keşfederim	1	2	3	4	5
23.	"Her işte bir hayır vardır" diye düşünürüm	1	2	3	4	5
24.	Sıkıntılı olduğumda her zamankinden fazla uyurum	1	2	3	4	5
25.	İçinde bulunduğum kötü durumu kimsenin bilmesini istemem	1	2	3	4	5
26.	Dua ederek Allah'tan yardım dilerim	1	2	3	4	5
27.	Olayı yavaşlatmaya ve böylece kararı ertelemeye çalışırım	1	2	3	4	5
28.	Olanla yetinmeye çalışırım	1	2	3	4	5
29.	Olanları kafama takıp sürekli düşünmekten kendimi alamam	1	2	3	4	5
30.	İçimde tutmaktansa paylaşmayı tercih ederim	1	2	3	4	5
31.	Mutlaka bir yol bulabileceğime inanır, bu yolda uğraşırım	1	2	3	4	5
32.	Sanki bu bir sorun değilmiş gibi davranırım	1	2	3	4	5
33.	Olanlardan kimseye söz etmemeyi tercih ederim	1	2	3	4	5

		Hiç uygun değil	Pek uygun değil	Uygun	Oldukça uygun	Çok uygun
34.	"İş olacağına varır" diye düşünürüm	1	2	3	4	5
35.	Neler olabileceğini düşünüp ona göre davranmaya çalışırım	1	2	3	4	5
36.	İşin içinden çıkamayınca "elimden birşey gelmiyor" der, durumu olduğu gibi kabullenirim	1	2	3	4	5
37.	İlk anda aklıma gelen kararı uygularım	1	2	3	4	5
38.	Ne yapacağıma karar vermeden önce arkadaşlarımın fikrini alırım	1	2	3	4	5
39.	Herşeye yeniden başlayacak gücü bulurum	1	2	3	4	5
40.	Problemin çözümü için adak adarım	1	2	3	4	5
41.	Olaylardan olumlu birşey çıkarmaya çalışırım	1	2	3	4	5
42.	Kırgınlığımı belirtirsem kendimi rahatlamış hissederim	1	2	3	4	5
43.	Alın yazısına ve bunun değişmeyeceğine inanırım	1	2	3	4	5
44.	Soruna birkaç farklı çözüm yolu ararım	1	2	3	4	5
45.	Başıma gelenlerin herkesin başına gelebilecek şeyler olduğuna inanırım	1	2	3	4	5
46.	"Olanları keşke değiştirebilseydim" derim	1	2	3	4	5
47.	Aile büyüklerine danışmayı tercih ederim	1	2	3	4	5
48.	Yaşamla ilgili yeni bir inanç geliştirmeye çalışırım	1	2	3	4	5
49.	"Herşeye rağmen elde ettiğim bir kazanç vardır" diye düşünürüm	1	2	3	4	5
50.	Gururumu koruyup güçlü görünmeye çalışırım	1	2	3	4	5
51.	Bu işin kefaretini (bedelini) ödemeye çalışırım	1	2	3	4	5
52.	Problemi adım adım çözmeye çalışırım	1	2	3	4	5
53.	Elimden hiç birşeyin gelmeyeceğine inanırım	1	2	3	4	5
54.	Problemin çözümü için bir uzmana danışmanın en iyi yol olacağına inanırım	1	2	3	4	5
55.	Problemin çözümü için hocaya okunurum	1	2	3	4	5
56.	Herşeyin istediğim gibi olmayacağına inanırım	1	2	3	4	5
57.	Bu dertten kurtulayım diye fakir fukaraya sadaka veririm	1	2	3	4	5
58.	Ne yapılacağını planlayıp ona göre davranırım	1	2	3	4	5
59.	Mücadeleden vazgeçerim	1	2	3	4	5

	Hiç uygun değil	Pek uygun değil	Uygun	Oldukça uygun	Çok uygun
60. Sorunun benden kaynaklandığını düşünürüm	1	2	3	4	5
61. Olaylar karşısında "kaderim buymuş" derim	1	2	3	4	5
62. Sorunun gerçek nedenini anlayabilmek için başkalarına danışırım	1	2	3	4	5
63. "Keşke daha güçlü bir insan olsaydım" diye düşünürü	1	2	3	4	5
64. Nazarlık takarak, muska taşıyarak benzer olayların olmaması için önlemler alırım	1	2	3	4	5
65. Ne olup bittiğini anlayabilmek için sorunu enine boyuna düşünürüm	1	2	3	4	5
66. "Benim suçum ne" diye düşünürüm	1	2	3	4	5
67. "Allah'ın takdiri buymuş" diye kendimi teselli ederim	1	2	3	4	5
68. Temkinli olmaya ve yanlış yapmamaya çalışırım	1	2	3	4	5
69. Bana destek olabilecek kişilerin varlığını bilmek beni rahatlatır	1	2	3	4	5
70. Çözüm için kendim birşeyler yapmak istemem	1	2	3	4	5
71. "Hep benim yüzümden oldu" diye düşünürüm	1	2	3	4	5
72. Mutlu olmak için başka yollar ararım	1	2	3	4	5
73. Hakkımı savunabileceğime inanırım	1	2	3	4	5
74. Bir kişi olarak iyi yönde değiştiğimi ve olgunlaştığımı hissederim	1	2	3	4	5

APPENDIX J

SOCIAL SUPPORT QUESTIONNAIRE (SSQ)

INSTRUCTIONS :

The following questions ask about people in your environment who provide you with help or support. Each question has two parts. For the first part, list all the people you know, excluding yourself, whom you can count on for help or support in the manner described. Give the person's initials and their relationship to you (see example). Do not list more than one person next to each of the letters beneath the question.

For the second part, circle how satisfied you are with the overall support you have.

If you have no support for a question, check the words "No one", but still rate your level of satisfaction. Do not list more than nine persons per question.

Please answer all questions as best you can. All your responses will be kept confidential.

EXAMPLE:

Who do you know whom you can trust with information that could get you in trouble?

No one	1) T.N. (brother)	4) T.N. (father)	7)
	2) L.M. (friend)	5) L.M. (employer)	8)
	3) R.S. (friend)	6)	9)

How satisfied?

6 - very satisfied	5 - fairly satisfied	4 - a little satisfied	3 - a little dissatisfied	2 - fairly dissatisfied	1 - very dissatisfied

Sample Items of Social Support Questionnaire:

Whom could you really count on to help you out in a crisis situation, even though they would have to go out of their way to do so?

Whom can you really count on to distract you from your worries when you feel under stress?

APPENDIX K

SOCIAL SUPPORT QUESTION SET

(SOSYAL DESTEK SORU FORMU)

Aşağıdaki sorular yaşamınızdaki sosyal destek kaynaklarını belirlemeyi amaçlamaktadır. 19 ifade içeren bu ankette sizden beklenen, her maddeyi dikkatli bir şekilde okumanız ve size uygun kutuları ve şıkları işaretlemenizdir.

*Tüm soruları **otizm tanısı almış olan çocuğunuzu düşünerek** yanıtlamanız gerekmektedir. Her soruyu atlamadan yanıtlamanız değerlendirme yapabilmemiz açısından çok önemlidir.*

1. **Çocuğunuzun bakımıyla ilgili olarak ailenizden veya eşinizin ailesinden (maddi ve/veya manevi) destek alabiliyor musunuz?**
   □ Evet □□ Hayır

   Bu destekten ne kadar memnunsunuz?

Hiç memnun değilim	Çoğunlukla memnun değilim	Ne memnunum ne değilim	Çoğunlukla memnunum	Çok memnunum
1	**2**	**3**	**4**	**5**

2. **Çocuğunuzun sağlık problemlerinden kaynaklanan masrafları karşılamak için herhangi bir sosyal güvenceniz var mı?**
   □ Evet □□ Hayır

3. **Sosyal güvenceniz varsa, bu destek masraflarınızı karşılamak için yeterli oluyor mu?**

Hiç yeterli değil	Çoğunlukla yeterli değil	Ne yeterli ne değil	Çoğunlukla yeterli	Çok yeterli
1	**2**	**3**	**4**	**5**

   Bu destekten ne kadar memnunsunuz?

Hiç memnun değilim	Çoğunlukla memnun değilim	Ne memnunum ne değilim	Çoğunlukla memnunum	Çok memnunum
1	**2**	**3**	**4**	**5**

4. Çocuğunuz özel eğitim desteği alıyor mu? Evet ise ne kadar zamandır?

□ Evet ____/____(yıl/ay) □□ Hayır

Bu destekten ne kadar memnunsunuz?

Hiç memnun değilim	Çoğunlukla memnun değilim	Ne memnunum ne değilim	Çoğunlukla memnunum	Çok memnunum
1	**2**	**3**	**4**	**5**

5. Özel eğitim masraflarını kim karşılıyor?

□ Devlet □ Kendi imkanlarımız □ Devlet ve Kendi imkanlarımız

□ Diğer_____

6. Yalnız başınıza bir yere gitmeniz gerektiğinde çocuğunuza göz kulak olması için eşinizden destek alabiliyor musunuz?

□ Evet □□ Hayır

Bu destekten ne kadar memnunsunuz?

Hiç memnun değilim	Çoğunlukla memnun değilim	Ne memnunum ne değilim	Çoğunlukla memnunum	Çok memnunum
1	**2**	**3**	**4**	**5**

7. Yalnız başınıza bir yere gitmeniz gerektiğinde <u>eşiniz dışında</u> çocuğunuzu çoğunlukla kime emanet ediyorsunuz? (aşağıdakilerden bir kaç tanesini işaretleyebilirsiniz)

□ Anne-Babama □ Akrabama

□ Arkadaşıma □ Emanet edebileceğim kimse yok

□ Diğer_____

Genel olarak bu desteklerden ne kadar memnunsunuz?

Hiç memnun değilim	Çoğunlukla memnun değilim	Ne memnunum ne değilim	Çoğunlukla memnunum	Çok memnunum
1	**2**	**3**	**4**	**5**

8. Çocuğunuzu okula çoğunlukla kim götürür?

□ Kendim □ Eşim □ Annem-Babam

□ Akrabam □ Arkadaşım □ Diğer_____

9. Önemli bir işiniz çıktığında çocuğunuzu okula götürme konusunda eşinizden destek alabilir misiniz?

□ Evet □□ Hayır

Bu destekten ne kadar memnunsunuz?

Hiç memnun değilim	Çoğunlukla memnun değilim	Ne memnunum ne değilim	Çoğunlukla memnunum	Çok memnunum
1	**2**	**3**	**4**	**5**

10. Önemli bir işiniz çıktığında çocuğunuzu okula götürme konusunda <u>eşiniz dışında</u> çoğunlukla kimlerden destek alabilirsiniz? (aşağıdakilerden bir kaç tanesini işaretleyebilirsiniz)

□ Anne-Babamdan □ Akrabalarımdan
□ Arkadaş(lar)ımdan □ Destek alabileceğim kimse yok
□ Diğer_____

Bu destekten ne kadar memnunsunuz?

Hiç memnun değilim	Çoğunlukla memnun değilim	Ne memnunum ne değilim	Çoğunlukla memnunum	Çok memnunum
1	**2**	**3**	**4**	**5**

11. Çocuğunuzu doktora çoğunlukla kim götürür?

□ Kendim □ Eşim □ Annem-Babam
□ Akrabam □ Arkadaşım □ Diğer_____

12. Önemli bir işiniz çıktığında çocuğunuzu doktora götürme konusunda eşinizden destek alabilir misiniz?

□ Evet □□ Hayır

Bu destekten ne kadar memnunsunuz?

Hiç memnun değilim	Çoğunlukla memnun değilim	Ne memnunum ne değilim	Çoğunlukla memnunum	Çok memnunum
1	**2**	**3**	**4**	**5**

13. Önemli bir işiniz çıktığında çocuğunuzu doktora götürme konusunda <u>eşiniz dışında</u> çoğunlukla kimlerden destek alabilirsiniz? (aşağıdakilerden bir kaç tanesini işaretleyebilirsiniz)

□ Anne-Babamdan □ Akrabalarımdan
□ Arkadaş(lar)ımdan □ Destek alabileceğim kimse yok
□ Diğer_____

Bu destekten ne kadar memnunsunuz?

Hiç memnun değilim	Çoğunlukla memnun değilim	Ne memnunum ne değilim	Çoğunlukla memnunum	Çok memnunum
1	**2**	**3**	**4**	**5**

14. Çocuğunuzla beraber yalnız başınıza dışarı (alış-veriş, ziyaret, banka, vs.) çıkabiliyor musunuz ?

□ Evet □□ Hayır

15. Çocuğunuzla beraber yalnız başınıza dışarı çıkamıyorsanız, sizinle birlikte gelebilmesi için çoğunlukla kimlerden destek alabilirsiniz? (aşağıdakilerden bir kaç tanesini işaretleyebilirsiniz)

□ Eşimden □ Anne-Babamdan □ Akrabalarımdan
□ Arkadaş(lar)ımdan □ Destek alabileceğim kimse yok
□ Diğer_____

Bu destekten ne kadar memnunsunuz?

Hiç memnun değilim	Çoğunlukla memnun değilim	Ne memnunum ne değilim	Çoğunlukla memnunum	Çok memnunum
1	**2**	**3**	**4**	**5**

16. Kendinize zaman ayırabiliyor musunuz?

□ Evet □□ Hayır

Evet ise, bu zaman sizce ne kadar yeterli?

Hiç yeterli değil	Çoğunlukla yeterli değil	Ne yeterli ne değil	Çoğunlukla yeterli	Çok yeterli
1	**2**	**3**	**4**	**5**

17. Kendinize zaman ayırmak istediğinizde, çocuğunuzla ilgilenmesi için çoğunlukla kimlerden destek alabiliyorsunuz? (aşağıdakilerden bir kaç tanesini işaretleyebilirsiniz)

□ Eşimden □ Anne-Babamdan □ Akrabalarımdan
□ Arkadaş(lar)ımdan □ Kimseden □ Diğer_____

Bu destekten ne kadar memnunsunuz?

Hiç memnun değilim	Çoğunlukla memnun değilim	Ne memnunum ne değilim	Çoğunlukla memnunum	Çok memnunum
1	**2**	**3**	**4**	**5**

18. Eşinizle başbaşa vakit geçirebiliyor musunuz?

□ Çoğunlukla □ Zaman zaman □ Nadiren □ Hiç

Eşinizle beraber geçirdiğiniz vakitten ne kadar memnunsunuz?

Hiç memnun değilim	Çoğunlukla memnun değilim	Ne memnunum ne değilim	Çoğunlukla memnunum	Çok memnunum
1	**2**	**3**	**4**	**5**

19. Ailenizin diğer üyeleriyle (anne, baba, akraba) veya arkadaşlarınızla vakit geçirebiliyor musunuz?

□ Çoğunlukla □ Zaman zaman □ Nadiren □ Hiç

Beraber geçirdiğiniz vakitten ne kadar memnunsunuz?

Hiç memnun değilim	Çoğunlukla memnun değilim	Ne memnunum ne değilim	Çoğunlukla memnunum	Çok memnunum
1	**2**	**3**	**4**	**5**

APPENDIX L

RECRUITMENT FLYER (For the U.S. Sample)

Name of Study: A Comparative Study of Families Raising a Child with Autism
Location: Mail-based Study
Eligibility Criteria: Mothers with one or more children ages 2 to 6 years with Autism Spectrum Disorder (ASD)
Principal Investigator: Dr. Richard E. Blumberg, The College Of New Jersey (TCNJ)
Contact Information: Seniz Celimli, Researcher, e-mail: autism.study.2008@gmail.com
Please e-mail your name and mailing address to autism.study.2008@gmail.com if you would like to participate in this study.

Dear Parent,

Our study looks at differences that exist between families of children with ASD in two very different cultures, the United States and Turkey. This will provide greater understanding of variation in family dynamics across cultures, and may contribute to more effective support for families and sophisticated intervention methods for affected children.

Our study is mail-based and should take approximately one hour to complete.

If you would like to participate in this study, please e-mail Seniz Celimli at autism.study.2008@gmail.com and ***provide your name and mailing address*** so that she can mail to you the package of study materials.

The package includes four questionnaires that measure family dynamics in different levels such as social support, stress, coping strategies, and family adaptability levels, and a consent form that you should read and sign. Please return the completed questionnaires and signed informed consent in the self-addressed, stamped envelope that you will also find in the package.

While you may not receive direct benefit from taking part in this study, you may see this experience as a chance to evaluate your family's situation in concrete terms. Moreover, your participation may contribute to our understanding of the cross-cultural characteristics of families raising a child with autism.

Thank you very much in advance for your time and attention. We look forward to working with you in the near future.

If you have questions about this study, please contact Seniz Celimli at autism.study.2008@gmail.com

Sincerely,
Richard E. Blumberg, Ph.D.
Seniz Celimli, M.S (Ph.D. Candidate)

The College Of New Jersey (TCNJ)
Department of Special Education, Language and Literacy

APPENDIX M

CONSENT FORM FOR TURKISH SAMPLE

Değerli Katılımcı,

Bu çalışma, Orta Doğu Teknik Üniversitesi Klinik Psikoloji Doktora Programına devam eden Uzm. Psk. Şeniz Çelimli'nin kültürlerarası karşılaştırmalı tez çalışmasının Türkiye kısmını oluşturmaktadır. Çalışmanın amacı otizm tanısı almış çocuğu olan Amerikan ve Türk aile yapılarındaki kültürel farklılıkları araştırmaktır. Araştırmaya otizm tanısı konmuş 2-6 yaş arası çocukların anneleri katılabilir.

Anketleri doldurmak yaklaşık olarak 50 dakika sürmektedir. Araştırmaya katılım tamamen gönüllülük esasına dayanmaktadır. Cevaplarınız tamamıyla gizli tutulacak ve yalnızca araştırmacı tarafından çalışmayı yürütme amaçlı olarak değerlendirilecektir.

Anketlerde yer alan sorular kişisel rahatsızlık verecek unsurlar içermemektedir. Buna karşın katılımınız sırasında herhangi bir nedenden ötürü rahatsızlık hissederseniz, istediğiniz aşamada cevaplamayı yarıda bırakıp çıkmakta serbestsiniz.

Araştırmaya katılımınız sayesinde aile durumunuzu değerlendirme deneyimi edinebilirsiniz. Bunun yanında, bu araştırmaya katılarak dolaylı olarak otizmi olan çocuk yetiştiren ailelerdeki kültürel farklılıkları anlamaya yönelik bilimsel literatüre de bir katkı sağlamış olacaksınız. Araştırmada doğru sonuçlara ulaşabilmemiz için soruları içtenlikle ve ailenizi en doğru yansıtacak şekilde cevaplandırmanız çok önemlidir. Bu araştırmanın sonuçları, devam ettiğiniz eğitim kurumunda ileri bir tarihte verilecek olan bir seminerle sizinle paylaşılacaktır. Buna ek olarak, *talep ettiğiniz takdirde,* çalışma tamamlandığında araştırmanın sonuçlarıyla ilgili bir özet size e-posta yoluyla ulaştırılacaktır. Ayrıca çalışmanın sonucunda ortaya çıkacak olan bilimsel amaçlı yayımların referans bilgileri de yine *talep ettiğiniz takdirde* sizinle paylaşılacaktır (size ulaşabileceğimiz e-posta adresiniz: _____)

Araştırmaya olan değerli katkılarınız için şimdiden çok teşekkür ederiz. Çalışma hakkında daha fazla bilgi almak isterseniz Uzm. Psk. Şeniz Çelimli (cep tel: (533) 662 3448; e-posta: e110748@metu.edu.tr) ile iletişime geçebilirsiniz.

Bu çalışmaya tamamen gönüllü olarak katılıyorum ve istediğim zaman yarıda kesip çıkabileceğimi biliyorum. Verdiğim bilgilerin bilimsel amaçlı yayımlarda kullanılmasını kabul ediyorum. (Formu doldurup imzaladıktan sonra uygulayıcıya geri veriniz).

İsim Soyad	Tarih	İmza
_____	___/___/_____	_____

APPENDIX N

CONSENT FORM FOR AMERICAN SAMPLE

CONSENT TO TAKE PART IN A RESEARCH STUDY

A Comparative Study of Families Raising a Child with Autism in the U.S. and Turkey

This consent form is part of an informed consent process for a research study and it will give information that will help me to decide whether I wish to volunteer for this research study. It will help me to understand what the study is about and what will happen in the course of the study. If I have questions at any time during the research study, I should feel free to ask them and should expect to be given answers that I completely understand. After all of my questions have been answered, if I still wish to take part in the study, I will be asked to read and sign this informed consent form. I will be given a copy of the signed consent form to keep. I understand that I am not giving up any of my legal rights by volunteering for this research study or by signing this consent form.

SPONSOR OF THE STUDY:
The Department of Special Education, Language and Literacy at The College of New Jersey is sponsoring this research study.

Why is this study being done?
The purpose of this study is to explore cultural differences between families with an autistic child in the U.S. and Turkey.

Why have you been asked to take part in this study?
The sample focus of this study is the families with an autistic child and since I have an autistic child, I have been invited to participate in this study.

Who make take part in this study? And who may not?
Since the focus of this study is families of children with autism, only the families who have a child with autism may participate in this study.

How long will the study last and how many subjects will take part in it?
I understand that participation this study will be limited to the amount of time I need to complete the set of questionnaires and return it to the researcher. The overall research project will last six months. One hundred (100) families from the U.S. will participate in this study.

What will I be asked to do if I take part in this research study?
If I accept to participate in this research study, I will be asked to engage in the following activities:

1. Read the informed consent and if accepting to participate, sign this informed consent form.
2. Respond to the set of questionnaires received via mail.
3. Return the questionnaire set to the principal investigator in the self addressed stamped envelope.

What are the risks and or discomforts I might experience if I take part in this study?
If I participate in the current study I may experience the following:

a. Stressed by the time constraints required to complete the questionnaire set (approximately one (1) hour to complete the survey and return it to the principal investigator within two weeks), or
b. Uncomfortable and unsure about how to answer some items.
c. A lack of privacy if the information that is gathered is used inappropriately. The strict protections against this type of risk are described below. However, it is possible that I may not experience any of these.

Are there any benefits for me if I choose to take part in this research study?

The benefits of taking part in this study may be:

a. While completing the questionnaires, I may see this experience as a chance to evaluate my family situation in concrete terms and may get benefit from this experience.
b. On the other hand, I may not receive direct benefit from taking part in this study; however with my participation in such a research study, I may indirectly make a contribution to scientific literature for understanding the cross-cultural components of family dynamics in raising a child with autism.

How will my confidentiality be protected?
I understand that the principal investigator will not use my name when disseminating study findings, will not share my name or address with anyone else, and will only be presenting data in aggregate so that my individual responses will not be identifiable. I understand that to protect my confidentiality the researcher will assign me a numerical code which will be used in place of my name throughout data management and analysis. I also understand that the principal investigator will destroy evidence of my participation by shredding records containing my name and mailing address three years following the end of the study (the study will be completed at the end of April 2009).

Who will be allowed to look at my research records from this study?
In addition to key members of the research team, the Institutional Review Board (a committee that reviews research studies to protect people participating in research), officials of the College of New Jersey, one of the study sponsors, are allowed, if they feel necessary, to inspect the research records maintained for this study. By taking part in this study, I should understand that the study collects demographic data and data related to our family functioning. My personal identity, that is my name, address, and

other identifiers, will be kept confidential. I will have a code number and my actual name will not be used. Only the principal and co-principal investigator will be able to link the code number to my name and will keep this information for five years. Data from this study will be used in the Ph.D. dissertation and scientific publications. My identity will be kept confidential.

What will happen if I do not wish to take part in the study or if I later decide not to stay in the study?
If I would prefer not to take part in the study, simply return the invitation letter checking off that I am unable to participate at this time. By doing this, I prevent receiving following up letters asking for me to return the invitation. If choose to take part and then decide to withdraw, I must revoke my approval in a letter to Dr. Richard Blumberg whose contact information is listed below.

Who can I call if I have any questions?
If I have any questions about taking part in this study, I can call the principal investigator:

Dr. Richard Blumberg
The College of New Jersey
Department of Special Education, Language and Literacy
PO Box 7718 Ewing, NJ 08628-0718
Phone: 609-771-2210
Blumberg@tcnj.edu

If I have any questions about my rights as a research subject, I can call:
IRB Director TCNJ
Dr. Lynn Smith 609-771-2810 smithlyn@tcnj.edu

What are my rights if I decide to take part in this research study?

- I understand that I have the right to ask questions about any part of the study at any time.
- I understand that I should not sign this form unless I have had a chance to ask questions and have been given answers to all of my questions.

I have read the entire form, and I believe that I understand its contents. All of my questions about this form and this study have been answered.

I agree to take part in this research study.

Subject name:_____
Subject signature:_____Date:_____
Principal Investigator:_____Date:_____

APPENDIX O

TURKISH SUMMARY

GİRİŞ

Bu çalışma, Türkiye ve Amerika'da okul öncesi yaş aralığında otizm tanısı almış çocuğu olan annelerin aile işlev süreçlerini araştırmaktadır. Çalışmanın ilk amacı, bu iki grup annenin ebeveyn stresi, başa çıkma yolları ve aile işlev süreçlerini karşılaştırmak, ikinci amacı ise aile işlevlerinin ebeveyn stresi, başa çıkma yolları ve sosyal destek değişkenleri arasından her iki kültürden gelen anneler için ayrı ayrı olmak üzere yordayıcılarını belirlemektir. Bu bölümde araştırmanın amaçları doğrultusunda ilgili literatür sunulacaktır.

Araştırmanın Konusuna Bağlı Literatür Bilgisi:

Otizm çoğunlukla çocukluk döneminde farkedilen ve hayat boyu gelişimi etkileyen bir gelişimsel bozukluktur. Zihinsel gelişimi tüm yönleriyle etkileyen bir bozukluk olarak otizmde farklı semptomlar farklı yaşlarda görülür ve değerlendirmeler de buna göre yapılmalıdır (Frith, 2003). Bu bozukluk ilk olarak Leo Kanner ve Hans Asperger tarafından tanımlanmıştır. Kanner ve Asperger, bu bozukluğu tanımlamak ve sınıflandırmak için, birbirlerinden bağımsız olarak "otizm" terimini kullanmışlardır (Asperger, 1944; Kanner, 1943).

Otizm tanısı için uluslararası arenada mutlak bir takım davranışsal ölçütler kullanılır. Ruhsal Bozuklukların Tanısal ve Sayımsal El Kitabı'nın

dördüncü baskısına göre (DSM-IV-TR; American Psychiatric Association, 2000), otizm tanısı koyabilmek için üç temel ölçüt bulunmaktadır. İlk ölçüt olarak, gelişimsel düzeye uygun olan sosyal etkileşim düzeyinde niteliksel bozulmalar görülmelidir. Karşılıklı sosyal etkileşimde meydana gelen bu bozulmalar sürekli ve yoğun bir biçimde ortaya çıkar. Sosyal etkileşim ve iletişimde görülen çok sınırlı göz kontağı ve jestler bu özel ölçütün davranışsal belirtileri arasında sınıflandırılabilirler. Otizm tanısı alan çocuklar, normal gelişim gösteren yaşıtlarından farklı olarak, etraflarındaki insanlar yerine nesnelere odaklanmaya eğilimli olurlar. İkinci ölçüt olarak, gelişimsel düzeye uygun olan iletişim düzeyinde niteliksel bozulmalar görülmelidir. İletişim sadece kullanılan dil ile sınırlı olmadığından, bu bozukluk hem sözel hem de sözel olmayan iletişimde görülen eksiklik olarak değerlendirilmelidir. Dil gelişiminin gecikmesi veya tamamen olmamasının yanında doğal gelişen –mış gibi oyun'un eksikliği ikinci ölçütün en önemli davranışsal belirtileri arasında yer alır. Son ölçüt olarak, yine uygun gelişimsel düzeye göreceli olarak tekrar eden ve kalıplaşmış davranış, ilgi ve hareket örüntüleri bulunmalıdır. Bu kendini tekrar eden ve kalıplaşmış hareketler normal olmayan bir yoğunlukta ve sınırlı bir tarzda ortaya çıkar ve davranışsal belirtiler el çırpma, kendi etrafında dönme ve sallanma gibi kalıplaşmış basit motor hareketleri içerir (DSM-IV-TR; American Psychiatric Association, 2000).

Yakın zamanda yapılmış yaygınlık çalışmalarına göre, otizm, yaygın gelişimsel bozukluklar arasında en sık rastlanan bozukluk olarak görülmektedir (Bryson & Smith, 1998). Son senelerde yapılan yaygınlık çalışmaları daha

önceki çalışmalarla karşılaştırıldığında otizm yaygınlık oranlarında dikkat çekici bir yükselme görülmektedir. Ancak bu yükselme eğiliminin gerçek bir yükselmeyi mi yansıttığı yoksa bu yükselmenin Otizm Spektrum Bozuklukları'na yönelik tanı ölçütlerindeki değişiklikle birlikte ebeveynlerdeki farkındalık düzeyinin yükselmiş olmasından mı ortaya çıktığı konusu ilgili literatürde süregelen bir tartışma olarak devam etmektedir (Frith, 2003). Bu tartışmanın yaygınlık, demografik özellikler ve diğer bağlantılı psikolojik ve biyolojik özellikleri belirleme konusunda toplanması gereken karşılaştırmalı veriler elde edilene kadara devam edeceği de öngörülmektedir (örn., Bryson & Smith, 1998). Yaygınlık çalışmalarında gözlenen değişime karşın, otizm tanısındaki cinsiyet oranı zaman içerisinde değişiklik göstermemiş ve görülme oranı erkek çocuklarında kız çocuklarına göre 3-4 kat daha fazla olarak günümüze kadar gelmiştir (Lord et al., 1982).

Aile yaşam döngüsü aile biriminin zaman içerisindeki gelişimini tanımlayan bir kavramdır. Çocuk sahibi olmak önemli bir karar olmanın yanında aynı zamanda aile yaşam döngüsünün yeni bir aşamasına geçiş anlamına gelmektedir. Aileye yeni bir üye katıldığı zaman çiftler hayatlarını bu duruma göre yeniden düzenlemelidirler. Yeni doğan bebeğin programı kapsamında iş hayatı, arkadaşlarla ilişkiler ve boş zaman aktiviteleri gibi her türlü günlük faaliyet yeniden düzenlenmelidir (Carter & McGoldrick, 1988). Bu çerçeveden bakıldığında ebeveynlik kavramı yeni ve zorlayıcı bir durumu ifade etmektedir. Her bir aile birimi içerisinde yeni doğan çocukla beraber gelen sorumluluklar zaman zaman yıpratıcı ve bunaltıcı olabilir. Crnic ve

Greenberg (1990) ebeveyn-çocuk ilişkisi üzerinden ikincil ebeveyn stresini araştırmayı amaçlayan bir çalışma yürütmüştür. Bu çalışmada araştırmacılar, anne-babalık ile ilgili günlük uğraşların ve sıkıntıların sıklık ve yoğunluğunu belirlemeyi amaçlamışlar ve sonuç olarak ikincil ebeveyn sıkıntılarının ebeveyn-çocuk ilişkisinde yaşanan stresin önemli bir kaynağı olduğunu bulmuşlardır. Bu araştırmanın da gösterdiği gibi normal gelişim gösteren çocuğa sahip olmak dahi ailenin bu yeni duruma uyum sürecini gerektirirken, engeli olan bir çocuğa sahip olmak ebeveynler tarafından yaşanan stres seviyesini kaçınılmaz olarak artırmaktadır. Bu konuda yapılmış olan bir çok çalışma da göstermektedir ki, engeli olan bir çocuğa sahip olan ebeveynler, normal gelişim gösteren çocuğa sahip ebeveynlerden istatistiksel olarak anlamlı oranda daha fazla stres yaşamaktadırlar (Bradley et al., 1991; Dumas et al., 1991; Hendricks et al., 2000; McKinney & Peterson, 1987; Smith et al., 2001). Buna ek olarak, ebeveynlerin çocuklarının engelli olduğunu öğrendiklerinde inkar, şaşkınlık, öfke ve son olarak uyum gösterme gibi yas sürecinde yaşananlara benzer aşamalardan geçtikleri görülmüştür (Seligman & Darling, 1989).

Günümüze kadar otizm tanısı almış bireyleri konu alan bir çok çalışma yapılmış olmasının yanında, bu bireylerin ailelerine odaklanan çalışmalarda özellikle son yıllarda bir artış olduğu görülmektedir. Otizm tanısı almış bir çocuğa ebeveynlik etmek, diğer gelişimsel bozukluğa sahip çocukların anne-babaların deneyimleriyle karşılaştırıldığında, bu bozukluğun kendine özgü zorluklarıyla birlikte fazlasıyla stres yaratan bir deneyim olarak görülmektedir

(Bouma & Schweitzer, 1990; Dumas et al., 1991; Holroyd & McArthur, 1976; Rodrigue et al., 1990; Sanders & Morgan, 1997; Smith et al., 2001). Bu sebeple, öncelikli olarak otizmin diğer gelişimsel bozukluklardan nasıl farklılaştığını açıklamak ve ardından bu bozukluğun ebeveynler ve özellikle de anneler için zorlayıcı taraflarını vurgulamak gerekmektedir. İlk olarak, otizm tanısı, işlevsel olmayan davranışların görülme sıklığı ve yaygınlığı açısından diğer gelişimsel bozukluklardan farklı bir özellik göstermektedir. Otizm tanısı olan çocukların bulundukları ortama uygun olmayan sosyal davranışlarının bulunmasının yanında, etraflarında bulunan kişilerin ihtiyaç ve sıkıntıları konusunda da farkındalık seviyeleri oldukça düşük ve sınırlıdır. Bu çocukların kısıtlı, tekrar eden ve kalıplaşmış davranış örüntülerinin yanında sözel ve sözel olmayan iletişim, göz kontağı kurma, ve duygulanım alanlarında belirgin ve süregelen bozuklukları bulunmaktadır (DSM-IV-TR; American Psychiatric Assocation, 2000). Bunlara ek olarak, otizm tanısı bulunan çocuklar sıklıkla, kendine zarar verme davranışları, fiziksel saldırganlık, aşırı fiziksel aktivite, yükses sesli tarzda tekrar eden sözel ifadeler ve olağan dışı uyku düzeni gibi ağır davranış problemleri gösterirler. Tüm bu sıkıntı yaratan davranışlar, çocukluk dönemi boyunca yüksek ölçüde var olmakla birlikte bir takım gelişimsel farklılaşmalarla yetişkinlik döneminde de devam eder (Sanders & Morgan, 1997). İkinci olarak, otizme özgü diğer bazı özellikler ebeveynlerin içinde bulundukları durumu daha da zorlaştırıcı bir unsur haline gelebilir. Otizmin oluşumundaki biyolojik temeller henüz aydınlatılamadığı ve bu bozukluk fiziksel görünümden ayırt edilemediği için doğum sırasında tanı

koymak mümkün değildir (Sanders & Morgan, 1997). Otizmin erken dönem davranışsal belirtileri net bir biçimde sınıflandırılmış olmasına rağmen klinisyenlerin bu belirtileri gözlemleme ve belirleme konusunda ehil olmaları gerekmektedir. Ebeveynler çocuklarının gelişimiyle ilgili şüphelenmeye başladıkları andan itibaren en doğru yanıtı bulabilecekleri profesyonel yardım arayışına girerler. Ancak, otizm tanısını koyma sürecinde yapılan değerlendirmeler esas olarak davranışsal gözmelere ve çeşitli psikolojik testlere dayandığından dolayı bu süreç kaçınılmaz olarak belirli bir zaman gerektirir (Frith, 2003). Ebeveynler için tanı koyma sürecinde yaşanan bu süreç belirsizlikle geçen süreyi uzattığından dolayı başlı başına yaşanan sıkıntıyı artırır. Diğer yandan, otizm tanısının konması özellikle anneler için belirsizlik döneminin sonu olmasına rağmen bir rahatlama anlamına gelmemektedir. Anne, çocukların bakımıyla birinci dereceden ilgilenen kişi olduğundan dolayı, hissettiği sorumluluk duygusu aile birimi içerisinde en çok stres yaşayan birey olmasına sebeğ olur (Wolf et al., 1989). Çocuklarına otizm tanısı konduğu andan itibaren yaşadıkları stresin yanında, anneler, yas, şaşkınlık, korku, üzüntü, yalnızlık, kızgınlık ve hissizlik gibi duygularla karşı karşıya kalırlar (Siegel, 1997; Sullivan, 1997). Otizmin nedenleri konusunda net ve açık biyolojik tanımlar henüz mevcut olmadığı ve bu bozukluk doğumda teşhis edilemediği için anneler çocuklarının geçmiş durumlarıyla veya gelişim sürecindeki zorluklarla ilgili olarak kendilerini birinci derecede sorumlu hissetme ve suçlama eğiliminde olurlar. Bu durum da yaşadıkları stresi artırıcı bir etken olarak karşımıza çıkar (Rodrigues et al., 1990). Tanı koyma

sürecindeki belirsizliklere ek olarak, çocuğun sergilediği atipik davranışsal özellikler, ebeveynlerin sosyal ortamlarda anlaşılabilme ve kabul görme konularında da sıkıntılar yaşamalarına sebep olur. Tüm bunlar biraraya gelidiğinde otizmin doğası ve çocuğun genel davranış örüntüleri ailenin üzerindeki yükü artıran temel nedenler arasındadır (Tomanik et al., 2004) ve bu etkenlerin esas olarak ebeveynlerin yaşadıkları stres seviyesiyle doğrudan ilişkili olduğu görülmektedir (Donenberg & Baker, 1993).

Otizm tanısı almış çocuğa sahip ailelerin yaşadıkları sıkıntılar karşısında aileler dengeli bir yaşam seviyesine ulaşabilmek için çeşitli başa çıkma yolları arayışına girerler. Ancak bazı ailelerin içinde bulundukları durumu diğer ailelerden daha başarılı bir şekilde ele aldıkları ve bu durumla daha etkili başa çıktıkları görülür (Gray, 1994). Başa çıkma, stres yaratan bir durum karşısında ortaya çıkan bir tepki ve zaman içinde değişim gösteren dinamik bir süreç olarak değerlendirilir. Başa çıkma terimi kavramsal olarak başarıya veya sağlıklı davranışa karşılık gelmez, aksine süreç içerisinde stres kaynağı üzerinde çok az etkili olabildiği gibi durumu tamamen kötüye götüren bir etkisi de olabilir. Folkman ve Lazarus (1980), başa çıkma tekniklerini iki ana sınıfa ayırmıştır: problem odaklı ve duygusal odaklı. Problem odaklı başa çıkma teknikleri direk olarak soruna odaklanır ve olası çözümler üzerinde çalışırken, duygusal odaklı başa çıkma teknikleri esas olarak stres yaratan durum karşısında ortaya çıkan sıkıntıyı azaltmayı amaçlar. Başa çıkma, bir süreç olarak eylem ve düşünce biçimindeki tepkileri içerir. Hangi başa çıkma tekniğinin daha sağlıklı ve etkili olduğu sorusundan ziyade, evrensel olarak

kabul görmüş doğru ya da yanlış başa çıkma süreçlerinin olmadığı ihtimalini göz önünde bulundurmak gerekir. Öte yandan, belirli başa çıkma yollarının etkinliğinin içinde bulundukları şartlar ve çevre koşullarında değerlendirilmesi gerekmektedir (Lazarus, 1993).

Genellikle bireysel yapının baskın olduğu batılı kültürlerde, bireylerin, karşılaştıkları sorunun ilişkisel anlamını yorumlamak veya bu anlamı yeniden değerlendirmek yerine, sorunları doğrudan hedef alan eylemlerde bulundukları görülmektedir. Bu yönelim esas itibarıyla bireysel kültürlerde insanların problem odaklı başa çıkma yollarını duygusal odaklı olanlara tercih ettiklerini göstermektedir. Diğer yandan toplumcu doğu kültürlerinde bu sürecin tersine işlediği düşünülmektedir. Ancak, belirli koşullar altında, özellikle sorun yaratan durumu değiştirmek için yapılabilecek hiç bir seyin etkili olmadığının düşünüldüğü durumlarda, problem odaklı başa çıkma teknikleri işe yaramadığı gibi durumu tamamen kötüleştire debilir. Bu gibi durumlarda duygusal odaklı yolların daha etkili olabildiği düşünülmektedir (Collins et al., 1983).

Aile üyeleri arasında karşılıklı bir etkileşim olduğundan dolayı, ailenin bir bütün olarak herhangi bir durumla başa çıkabilmesi için aile birimi içerisindeki tüm rollerin ve kuralların yeniden şekillendirilmesi gerekmektedir (Seligman, 1999). Örneğin, engelli bir çocuk dünyaya geldiğinde bu durumun etkisi ebeveynlere olduğu kadar, diğer kardeşler ve hatta geniş aileye de yayılır. Bu gibi zorlayıcı durumlar karşısında aile, bağlılık, esneklik ve iletişim gibi repertuarında bulunması gereken özellikleri harekete geçirmek durumundadır. Bağlılık ve esneklik kavramlarının aile birimini tanımlamada

büyük önemi vardır. Bağlılık, aile üyeleri arasında, sistem olarak birarada olabilmeyi sağlayan duygusal bağ olarak tanımlanır. Esneklik ise değişim karşısında aile üyeleri arasındaki roller ve kurallar ilişkilerinin değişebilme miktarını ifade eder. Olson'un (2000) Circumplex Evlilik ve Aile Sistemleri Modeli, bu iki kavramı temel almaktadır. Bu modelin temel hipotezine göre, bağlılık ve esneklik kavramlarının aile işlevselliği ile doğrusal olmayan bir ilişkisi bulunmaktadır. Diğer bir deyişle, çok yüksek ve çok düşük bağlılık ve esneklik düzeyi aile sistemi için sağlıksız bir işlevselliğe işaret ederken, bu iki özelliğe orta düzeylerde sahip olmak dengeli ve sağlıklı bir aile sistemi yapısını tanımlamaktadır (Gorall, 2002; Gorall & Olson, 1995; Olson, 2000; Tiesel, 1994). Aile yaşam döngüsü boyunca karşılaşılan gelişimsel değişiklikler ve stresli durumlarla etkili bir biçimde başa çıkabilmek için ailelerin bağlılık ve esneklik düzeylerinde uygun değişiklikleri yapabilmeleri gerekmektedir. Bu modele göre, kriz durumlarıyla baş edebilmek için aile sistemlerini etkili bir biçimde uyarlayabilen aile sistemleri dengeli aile sistemleridir. Diğer yandan, dengesiz aile sistemleri bu gibi durumlarla başa çıkabilecek kaynak ve becerilerden yoksundurlar ve dolayısıyla kriz durumlarına uyumda sıkıntı çekerler (Olson & Gorall, 2000). Otizmi olan çocuğa sahip ailelerde, bağlılık ve esneklik kavramları, ailelerin süregelen gelişimsel stres kaynaklarına nasıl tepki gösterdiklerini ve nasıl zaman içerisinde nasıl uyum sağladıklarını açıklama konusunda önemli rol oynamaktadır (Farrell & Barnes, 1993).

Son olarak, aile işlevselliği konusunda kültürel özellikleri vurgulamak gerekir. Aile biriminin değerler sistemi, kuralları ve yapısı, sosyal ihtiyaçlar

doğrultusunda şekillenir ve bu özellikler zaman içinde ve kültürler arasında değişiklik gösterir (Kağıtçıbaşı, 1996a). Kağıtçıbaşı (1996a, 1996b) bu varsayımdan yola çıkarak bir aile değişim modeli ortaya koymuştur. Bu model, kültürel değişimleri açıklamak için bireyin kendisi, ailesi ve toplum arasındaki ilişkileri incelemeyi öngörür. Modelde üç aile etkileşim modeli tanımlanmıştır: bütünsel karşılıklı bağlılık modeli, bağımsızlık/serbestlik modeli ve psikolojik bağlılık modeli (1996a, 1996b, 2005). İlk modelin temelleri geleneksel tarım toplumlarına dayanmaktadır. Bu etkileşim modelinde çocuk, aile biriminin geleceğini garanti altına almayı sağlayan ekonomik bir değer olarak görülür. Bu değerden ötürü, bu tür toplumlarda doğurganlığa çok büyük önem verilmektedir. Bu toplumlarda ekonomik değeri dolayısıyla çocuğun bağımsızlığını kazanması hoş görülmez ve bunun aile biriminin yaşamını tehlikeye atacağı düşünülür. Bu nedenle, çocuk yetiştirme tutumu olarak itaat esastır. İkinci model olan ve batılı orta sınıf ailelerde gözlenen bağımsızlık/serbestlik modelinde, ilk modelin tam tersi bir durum mevcuttur. Bu modelde çocuk, ekonomik değer kaynağı olmasının tersine bir masraf kaynağı olarak değerlendirilir ve dolayısıyla bu tür toplumlarda çocuğun bağımsızlığı sonuna kadar teşvik edilir. Çocuk yetiştirme tutumu olarak ise otonomi esas alınır. Son olarak, Türk toplumunda da örneği gözlendiği düşünülen (Kağıtçıbaşı, 1996a) psikolojik bağımlılık modeli, küreselleşmenin bir sonucu olarak ortaya çıkmıştır. Sosyoekonomik gelişmelerle birlikte çocuğa maddi bakış açısı zayıflamış ve ekonomik bağlılık yerini psikolojik bağlılığa bırakmıştır. Bu gibi toplumlarda, çocuk yetiştirme tutumlarında otonominin

değer kazanmış olmasına rağmen nihai amaç ayrışma değil yakınlık ve bağlantılı olmaktır.

Çalışmanın Amacı:

Yukarıda sunulan ilgili literatür bilgisinin ışığında bu çalışmanın amacı, okul öncesi yaş aralığında otizmi olan çocuğu bulunan Türk ve Amerikan annelerinde, aile işlevsellik süreçlerindeki farklılıkları araştırmaktır. Bu araştırmanın sadece anneler üzerinde yapılması, ilgili literatür bilgisi kısmında da aktarıldığı gibi, ampirik bir temele dayanmaktadır. Kısaca bahsetmek gerekirse, çocuğun bakımını birinci derecede üstlenen bireyler olarak anneler, hissettikleri yüksek sorumluluk duygusundan ötürü otizm tanısı almış çocuklarını yetiştirirken yüksek düzeyde stres yaşamaktadırlar (Rodrigue et al. 1990; Wolf et al., 1989).

Araştırmanın birincil hedefi, Türkiye ve Amerika'dan otizm tanısı almış okul öncesi yaş aralığında çocuğu bulunan anneleri, ebeveyn stresi, başa çıkma yolları ve aile işlevsellik süreçleri açısından karşılaştırmaktır. İkinci olarak ise, bu çalışma, ebeveyn stresi, başa çıkma yolları ve sosyal destek düzeylerinin aile bağlılık ve esneklik boyutlarını her iki ülke anneleri için ne ölçüde yordadığını araştırmayı amaçlamaktadır. Bu amaçlar doğrultusunda aşağıdaki araştırma soruları önerilmiştir:

1. Ebeveyn stres değişkenlerinden ebeveyn sıkıntısı, zor çocuk ve ebeveyn-çocuk işlevsel olmayan etkileşimi Türkiye ve Amerika'dan otizm tanısı almış çocuğu bulunan anneler arasında farklılaşıyor mu?

2. Başa çıkma yollarından problem odaklı ve duygusal odaklı başa çıkma yolları Türkiye ve Amerika'dan otizm tanısı almış çocuğu bulunan anneler arasında farklılaşıyor mu?

3. Aile işlevselliği değişkenlerinden bağlılık, esneklik, parçalanma, içiçe geçme, katılık ve karmaşa Türkiye ve Amerika'dan otizm tanısı almış çocuğu bulunan anneler arasında farklılaşıyor mu?

4. Türkiye ve Amerika'dan otizm tanısı almış çocuğu bulunan anneler için aile işlevsellik süreçlerinin yordayıcıları nelerdir?

a. Türkiye'den otizm tanısı almış çocuğu bulunan anneler için ebeveyn stresi, başa çıkma yolları ve sosyal destek değişkenleri aile bağlılık ve esneklik düzeylerini yordayıcı mıdır?

b. Amerika'dan otizm tanısı almış çocuğu bulunan anneler için ebeveyn stresi, başa çıkma yolları ve sosyal destek değişkenleri aile bağlılık ve esneklik düzeylerini yordayıcı mıdır?

YÖNTEM

Katılımcılar:

Bu araştırmanın katılımcıları, Türkiye ve Amerika'dan aynı ölçütlere sahip iki örneklem grubundan oluşmaktadır. Araştırmaya, iki ve yedi yaş aralığında otizm tanısı almış çocuğu bulunan Türkiye'den 40, Amerika'dan 48 olmak üzere toplam 88 anne dahil edilmiştir. Türkiye'den araştırmaya dahil edilen annelerin yaş ortalaması 33.21 iken, Amerika'dan dahil edilen annelerin

yaş ortalaması 36.40'tır. Otizm tanısı olan çocukların yaş ortalaması ise Türk anneler için 52.05 ay, Amerikan anneler için ise 66.67 aydır.

Ölçüm Araçları:

Bu çalışma toplam 5 ölçüm aracı içermektedir; Demografik Bilgiler Formu, Ebeveyn Stres İndeksi / Kısa Form (PSI/SF; Abidin, 1995b), Başetme Yolları Ölçeği (WCQ; Folkman, & Lazarus, 1988), Sosyal Destek Ölçümleri (Türkiye örneklemi için Sosyal Destek Soru Formu; Amerika örneklemi için Sosyal Destek Anketi – SSQ; Sarason et al., 1983); Esneklik ve Bağlılık Değerlendirme Ölçeği (Olson et al., 2004).

Demografik Bilgiler Formu: Araştırmacı tarafından geliştirilen bu form katılımcıların çeşitli demografik özellikleri ile ilgili bilgi toplamayı amaçlamaktadır.

Ebeveyn Stres İndeksi / Kısa Form: Bu indeks, 36 maddeden oluşan, Likert tipi yanıt anahtarı bulunan, güvenilir ve geçerli bir ölçüm aracıdır. Ebeveyn Stres İndeksi Kısa Form, ebeveyn, çocuk ve ebeveyn-çocuk etkileşimlerine odaklanarak ebeveyn-çocuk sistemindeki temel özellikleri değerlendirmeyi amaçlamaktadır. Ebeveyn sıkıntısı, zor çocuk ve ebeveyn-çocuk işlevsel olmayan etkileşim başlıklı üç alt ölçeği bulunan indeks, 0 ile 12 yaş aralığında çocuğa sahip ebeveynler tarafından doldurulabilir. İndeksin Türkçe güvenilirlik ve geçerlik çalışmaları araştırmacı tarafından yapılmıştır.

Başetme Yolları Ölçeği: Bu ölçek, 74 maddeden oluşan, Likert tipi yanıt anahtarı bulunan, güvenilir ve geçerli bir ölçüm aracıdır. Başetme Yolları

Ölçeği, bireylerin karşılaştıkları stresli olaylarla başetmek için kullandıkları düşünce ve eylemleri, genel olarak da başa çıkma süreçlerini değerlendirmeyi amaçlamaktadır. Başetme Yolları Ölçeği'nin Türkçe güvenilirlik ve geçerlik çalışmaları ilk olarak Siva (1991) tarafından yapılmıştır. Daha sonra farklı örneklem gruplarıyla değişik araştırmacılar tarafından üzerinde çalışılan ölçeğin, bu araştırma için, Gençöz ve arkadaşları (Gençöz et al., 2006) tarafından problem odaklı, duygusal odaklı ve dolaylı başa çıkma olmak üzere üç alt ölçeğe indirgenmiş hali kullanılmıştır.

Sosyal Destek Ölçümleri:

Sosyal Destek Soru Formu (Türkiye örneklemi için): Bu soru formu araştırmacı tarafından, araştırmanın Türk örneklem kısmı için, annelerin sosyal destek seviyelerini değerlendirmek amacıyla geliştirilmiştir. Sorular esas olarak otizm tanısı almış çocuğu bulunan anneleri hedef almakta ve bu kişilerin sosyal destek kaynaklarından memnuniyet derecelerini belirlemeyi amaçlamaktadır.

Sosyal Destek Ölçeği (Amerika örneklemi için): Bu ölçek, 27 maddeden oluşan, yarı Likert tipi yanıt anahtarı bulunan, güvenilir ve geçerli bir ölçüm aracıdır. Sosyal destek ölçeği, sosyal desteği, bireyin hayatında destek alabileceği kişilerin sayısı ve bu kişilerden aldığı destekten memnuniyeti olmak üzere iki boyutta ölçmeyi hedeflemektedir.

Esneklik ve Bağlılık Değerlendirme Ölçeği: Bu ölçek, 42 maddeden oluşan, Likert tipi yanıt anahtarı bulunan, güvenilir ve geçerli bir ölçüm aracıdır. Esneklik ve Bağlılık Değerlendirme Ölçeği, aile biriminin sağlık derecesini bağlılık ve esneklik kavramlarına odaklanarak değerlendirmeyi

amaçlamaktadır. Esneklik, bağlılık, parçalanma, içiçe geçme, katılık ve karmaşa olmak üzere altı alt ölçeği bulunan bu ölçüm aracı 12 yaşın üzerindeki tüm aile üyeleri tarafından doldurulabilir. Ölçeğin Türkçe güvenilirlik ve geçerlik çalışmaları araştırmacı tarafından yapılmıştır.

İşlemler:

Veri toplama sürecine başlamadan önce her iki örneklem grubunun (Türkiye ve Amerika) karşılaştırılmasına zemin hazırlayabilmek amacıyla ortak ölçütler belirlenmiştir. Bu ölçütlere göre her iki ülkeden, 2 ila 7 yaş aralığında otizm tanısı almış çocuğu bulunan ebeveynler arasından sadece anneler bu çalışmaya katılmıştır. Türkiye'den belirlenen yaş aralığında otizm tanısı almış çocuğu bulunan annelere, bu çocuklara yönelik çalışmalarda bulunan Ankara ve İstanbul illerinden çeşitli dernek, vakıf ve özel eğitim merkezleri vasıtasıyla ulaşılmıştır. Birebir olarak iletişime geçilen annelerden araştırmaya katılmaya gönüllü olanlar, ölçüm araçlarının ve gönüllü katılım formunun biraraya getirildiği anket formlarını doldurarak direk olarak araştırmacıya ya da hizmet aldıkları kurumdaki yetkili kişilere teslim etmişlerdir. Diğer yandan, Amerika'dan belirlenen yaş aralığında otizm tanısı almış çocuğu bulunan annelere ise, Amerika genelinde gelişimsel bozukluk merkezleri, otizm aile destek grupları ve otizm araştırmalarını destekleyen oluşumlar vasıtasıyla ulaşılmıştır. Bu örneklem grubundan araştırmaya katılmaya gönüllü olan annelerden, kendilerine posta yoluyla ulaştırılan ölçüm araçlarının ve gönüllü katılım formunun biraraya getirildiği anket formlarını

doldurduktan sonra, posta ücretleri ödenmiş ve gönderim adresleri hazırlanmış zarfları kullanarak araştırmacıya iletmeleri istenmiştir.

İstatistiksel Analizler:

Araştırma verilerinin analiz edilmesi için araştırma sorularıyla paralel olarak otizmi olan çocuk sahibi her iki ülke annelerinin grup karşılaştırmaları için Çok Değişkenli Kovaryans Analizleri (MANCOVA) ve aile bağlılık ve esneklik yordayıcıları için ise Adımsal Çoklu Regresyon Analizleri yürütülmüştür.

BULGULAR

Grup Karşılaştırmaları:

Bu araştırma kapsamında Türk ve Amerikan örneklemleri ebeveyn stresi, başa çıkma yolları ve aile işlevsellik değişkenleri açısından karşılaştırılmıştır. Grup karşılaştırma analizlerine göre, her iki ülke annelerinde ebeveyn stres düzeylerinde anlamlı bir farklılaşma bulunmamış ve her iki grubun da stres seviyeleri yüksek bulunmuştur. Başa çıkma yolları değişkenleri üzerinden yürütülen grup karşılaştırma analizleri, otizm tanısı almış çocuğu bulunan Türk annelerin Amerikan annelerden anlamlı seviyede daha çok problem odaklı başa çıkma yollarını kullandıklarını göstermiştir. Diğer yandan duygusal odaklı ve dolaylı başa çıkma yolları değişkenlerinde her iki ülke örneklemleri arasında bir fark bulunmamıştır. Son olarak, aile işlevsellik

değişkenlerinden esneklik ve içiçe geçme değişkenlerinin her iki ülke anneleri için değişiklik gösterdiği görülmüştür. Bulgular, otizm tanısı almış çocuğu bulunan Türk annelerin esneklik ve içiçe geçme değişkenlerinde Amerikan annelerden anlamlı olarak daha yüksek puan aldıklarını göstermiştir.

Regresyon Analizleri:

Araştırma kapsamında aile bağlılık ve esneklik değişkenlerinin yordayıcıları otizm tanısı almış çocuğu bulunan Türk ve Amerikan anneler için ayrı ayrı olmak üzere Adımsal Çoklu Regresyon Analizleri yürütülerek araştırılmıştır. Yüksek düzeyde problem odaklı başa çıkma ve sosyal desteğin, otizm tanısı almış çocuk sahibi Türk anneleri için aile bağlılığının anlamlı yordayıcıları olduğu bulunmuştur. Bunun yanında, Amerikan anneler için, çocuğun yaşındaki artışın, annenin daha genç olmasının, düşük ebeveyn stresinin, yüksek düzeyde dolaylı başa çıkmanın ve sosyal desteğin aile bağlılığını anlamlı olarak yordadığı görülmüştür. Diğer yandan, Türk anneler için aile esnekliğini yalnızca yüksek problem odaklı başa çıkma seviyesinin anlamlı olarak yordadığı görülürken, Amerikan anneler için, aile esnekliğini düşük ebeveyn stresi, yüksek seviyede dolaylı ve duygusal odaklı başa çıkma ve sosyal destek anlamlı olarak yordamıştır.

TARTIŞMA

İlgili literatürle tutarlı olarak (örn., Bouma & Schweitzer, 1990; Rodrigue et al., 1990; Tomanik et al., 2004) otizm tanısı almış çocuğu bulunan

Türk ve Amerikan annelerin, her iki ülke annelerinin stres seviyeleri açısından farklılaşmadığı görülmüştür. Bu bulguya ek olarak, Türk ve Amerikan annelerin stres seviyeleri kendi içlerinde değerlendirildiğinde, otizmi olan çocuğa sahip aileler üzerinde yapılan önceki çalışmalara paralel olarak (örn., Hasting, 2002; Tomanik et al., 2004; Akçakın & Erden, 2004), araştırmaya dahil olan annelerin her iki örneklem grubu için stres seviyelerinin anlamlı ölçüde yüksek olduğu görülmektedir. Annelerin yaşadıkları stres seviyesinin içinde bulundukları kültürden bağımsız olarak yüksek olmasının olası iki açıklaması olabilir. Birinci olarak otizmi olan çocuğun gösterdiği davranış sorunları kültüre göre değişiklik göstermemekte ve dolayısıyla annelerin yaşadıkları zorluk seviyesi benzer özellikler taşımaktadır (Bouma & Schweitzer, 1990; Rodrigue et al., 1990; Tomanik et al., 2004). İkinci olarak da, bu bulgunun araştırmaya sadece annelerin dahil edilmesi ve bu annelerin otizmi olan çocuklarının okul öncesi yaş aralığında olmasından kaynaklanıyor olabileceği düşünülmektedir. İlgili literatür, bu iki örneklem özelliğinin stres seviyesini artırıcı özellikler olduğunu belirtmektedir (Rodrigue et al., 1990).

Araştırma dahilindeki anneler başa çıkma yolları açısından karşılaştırıldığında, otizmi olan çocuk sahibi Türk annelerin Amerikan annelerden anlamlı derecede daha fazla problem odaklı başa çıkma yollarını kullandıkları bulunmuştur. Bu bulgu literatürdeki batılı kültürlerin daha çok problem odaklı başa çıkma tekniklerini kullanma eğiliminde olduğu bilgisiyle (Lazarus, 1993) tutarsız görülmektedir. Bu noktada, ne gibi süreçlerin otizmi olan çocuğa sahip Türk annelerini daha fazla problem odaklı başa çıkma

yollarını kullanmaya yönelttiği sorusu önem kazanmaktadır. Bu konuyu açıklayabilmek için her iki ülkenin engellilerle ilgili yürüttüğü devlet politikalarına gözatmanın faydalı olabileceği düşünülmektedir. Pınar (2006) çalışmasında Amerika, Kanada ve Avrupa ülkeleri gibi farklı ülkelerdeki erken çocukluk özel eğitiminin tarihsel gelişimini incelemiştir. Bu çalışma sonucunda ortaya çıkan tablo göstermektedir ki, endüstriyel batılı ülkelerde erken çocukluk dönemi özel eğitimi konusunda devlet politikalarına yönelik somut adımlar 1960'larda atılmaya başlamış olmasına rağmen, Türkiye'de bu gelişim ancak 1990'lara dayanmaktadır. Bu dikkate değer farkın bir sonucu olarak da Türkiye'de erken müdahale programlarının etkinliği bahsi geçen diğer ülkelere göre oldukça sınırlı kalmaktadır. Diğer yandan, Amerika ve Türkiye, otizm konusunda toplumsal farkındalık düzeylerinin gelişimi ve aileler için sosyal destek kaynaklarının düzeyleri açısından karşılaştırıldığına, Amerika'da bu amaca yönelik faaliyetlerin yine Türkiye'den çok daha önce başladığı görülmektedir. Araştırmaya konu olan her iki ülke (Türkiye ve Amerika) bahsedilen gelişim düzeylerindeki farklılıklar açısından değerlendirildiğinde Türkiye'de otizm tanısı almış ebeveynlerin özel eğitim hizmetlerine erişim için Amerika'daki ebeveynlere oranla çok daha fazla çaba harcamaları gerektiği düşünülmektedir. Bilgiye ulaşmanın önceki dönemlere oranla çok daha kolay ve hızlı olduğu günümüzde, Türkiye'deki ebeveynler varoldukları sistemdeki otizme yönelik devlet politikaları ve sosyal hizmetler konusundaki genel eksikliklere rağmen güncel bilgiye kolaylıkla ulaşabilmektedirler ve aslında bu ebeveynler de Amerika'dakiler kadar otizm konusunda erken müdahalenin

öneminin farkındadırlar. Sıralanan bu sebeplerden ötürü, Türkiye'deki otizmi olan çocuk sahibi ebeveynlerin farkındalık düzeylerinin yüksek olmasına rağmen faydalanabilecekleri kaynakların Amerika'daki ebeveynlerden daha sınırlı olmasının sonucu olarak, çocuklarına otizm tanısı konmasının ardından vakit kaybetmemek adına doğrudan probleme odaklanarak çözüm arayışına gitmeyi ve dolayısıyla da Amerika'daki ebeveynlerden daha çok problem odaklı başa çıkma yollarını tercih ediyor olabilecekleri düşünülmektedir.

İlgili literatürde otizm tanısı almış çocukların ebeveylerinin yaşadıkları stres üzerinde yapılan bir çok çalışma bulunmasına rağmen, bu ailelerin işlevsellik düzeyleri üzerinde sınırlı miktarda çalışma olduğu görülmektedir. Aile işlevsellik süreçlerine odaklanan çalışmalar da genellikle otizmi olan çocuğu bulunan ebeveynlerin aile bağlılık ve esneklik düzeylerini başka türde gelişimsel bozukluğu bulunan çocuk sahibi veya normal gelişim gösteren çocuk sahibi ailelerin aile bağlılık ve esneklik düzeyleriyle karşılaştıran çalışmalardır (e.g., Rodrigue et al., 1990; Higgins et al., 2005). Bu araştırma kapsamında yürütülen çoklu adımsal regresyon analizleri sonucunda ortaya çıkan dikkat çekici sonuçlardan biri, iki ülke anneleri arasında aile bağlılık ve esnekliği üzerindeki ebeveyn stres değişkeninin yordayıcı etkisinin farklılaşmasıdır. Analizler Amerikan anneler için düşük ebeveyn stresinin yüksek aile bağlılığı ve esnekliği ile ilişkili olduğunu gösterirken, Türk anneler için stres değişkeni ile aile bağlılığı ve esnekliği arasında benzer türde bir ilişki olmadığı görülmektedir. Amerikan anneler için elde edilen bu bulgu literatürdeki düşük stres seviyesinin yüksek aile bağlığı ile ilişkili olduğu

sonucuna varan diğer çalışmalarla tutatlı görülmektedir (Boyce et al., 1991). Bunun yanında Türk anneler için ebeveyn stres değişkenlerinden hiç birinin aile bağlılık ve esnekliği ile ilişkili bulunmamasının, Türk anneler için ebeveyn stres değişkenleri ve problem odaklı başa çıkma değişkeni arasında gözlenen anlamlı ve güçlü korelasyondan kaynaklanabileceği düşünülmektedir. Diğer bir deyişle, otizmi olan çocuk sahibi Türk anneler için ebeveyn stresi değişkenleri ile problem odaklı başa çıkma değişkeninin yüksek oranda ilişkili olması nedeniyle problem odaklı başa çıkma yöntemlerinin kullanımındaki yükselme bu annelerin stres seviyesini bastırmış olabilir.

Adımsal çoklu regresyon analizleri sonucu ortaya çıkan araştırmanın ikinci önemli bulgusu, aile bağlılık ve esneklik değişkenlerini yordamada iki ülke annelerinde gözlenen başa çıkma yolları arasındaki farklılıktır. Grup karşılaştırmalarıyla tutarlı olarak, otizmi olan çocuğu bulunan Türk annelerinde problem odaklı başa çıkma yollarının kullanımındaki artış aile bağlılık düzeyindeki artışla ilişkili bulunurken, Amerikan annelerinde dolaylı başa çıkma yollarının kullanımının artması aile bağlılık seviyesinin artışıyla ilişkilidir. İlgili literatür, duygusal odaklı başa çıkma yollarının, annelerin psikolojik sıkıntılarını artırıcı rol oynadığına ve dolayısıyla ebeveyn stresini artırdığına işaret etmektedir (Hasting et al., 2005; Orr et al, 1991; Quine & Pahl, 1991). Bu sebeple, otizmi olan çocuğu bulunan Türk anneleriyle başa çıkma yolları üzerine yapılan çalışmaların sınırlı olmasına rağmen, duygusal odaklı başa çıkma yollarının işlevsel olmadığını gösteren literatür bulguları eşliğinde bu araştırmanın sonucunda ortaya çıkan yüksek problem odaklı başa

çıkma yollarının kullanımının yüksek aile bağlılığı ile ilişkili olmasının literatürle tutarlı bir bulgu olduğu düşünülmektedir. Amerikan annelerinde ortaya çıkan, dolaylı başa çıkma yollarının kullanımıyla aile bağlılığının artış göstermesi arasındaki ilişki ise bu başa çıkma yolunun daha detaylı değerlendirilmesiyle açıklanabilir. Dolaylı başa çıkma yolları, sorunların yakın kişilerle paylaşımı ve karşılaşılan soruna yönelik tavsiye alabilme gibi sosyal destek arayışları olarak tanımlanmaktadır (Folkman & Lazarus, 1985; Gençöz et al., 2006). Bu açıdan bakıldığında sosyal destek arayışındaki kültürel farklılıklar araştırmanın bu bulgusunu açıklamakta yardımcı olacaktır. Shin (2002), zihinsel geriliği olan çocuğu bulunan Koreli ve Amerikalı anneleri, aldıkları destek açısından karşılaştırdığı çalışmasında, Koreli annelerin çocuklarının engeli ile ilgili olumsuz geri bildirim alma korkusuyla yakın çevre destek kaynaklarını kullanmakta, Amerikalı annelerden daha çekingen olduklarını bulmuştur. Bunun yanında, Amerikalı annelerin profesyonel destek kaynaklarına Koreli annelerden daha fazla güvendikleri ortaya çıkmıştır. Shin araştırmasının ikinci bulgusunu, bu araştırmadakine benzer bir tartışmayla açıklamış ve Kore'de engelliler konusundaki hizmetlerin henüz gelişme aşamasında olmasından dolayı iki kültür arasında böyle bir farklılığın çıkmış olabileceğini belirtmiştir. Shin'in araştırmasında ortaya çıkan sosyal destek arayışındaki kültürel farklılıklarla bu araştırmadaki Amerikan annelerinde gözlenen dolaylı başa çıkma yolları ile aile bağlılığı arasındaki ilişki benzer bir şekilde açıklanabilir. Amerikan annelerle kıyaslandığında, otizmi olan çocuğu

bulunan Türk anneler de sosyal destek arayışı konusunda daha çekingen bir tutum sergiliyor olabilirler.

SONUÇ

Bu araştırma sonucunda literatürle tutarlı olarak okul öncesi yaş aralığında otizmi bulunan çocuğu olan Türk ve Amerikan annelerin yüksek ebeveyn stresi yaşadıkları bulunmuştur. Farklı kültürel yapılarına rağmen her iki grup annenin de yüksek seviyede stres yaşıyor olmaları, otizmin kültüre göre değişiklik göstermeyen kendine has özellikleri ve araştırma örnekleminin bazı özellikleriyle açıklanabilmektedir. Bunun yanında, her iki grup annenin, kullandıkları başa çıkma yolları açısından farklılaştığı görülmüştür. Bu araştırmaya göre, başa çıkma yolları konusunda kültürel farkları araştıran literatürün aksine, otizmi olan çocuğu bulunan Türk annelerin Amerikan annelerden anlamlı oranda daha çok problem odaklı başa çıkma yolları kullandığı belirlenmiştir. Araştırmanın bu önemli bulgusunun, Türk annelerin erken dönem özel eğitimi konusundaki yüksek duyarlılıklarının yanı sıra Türkiye'deki sınırlı kaynaklardan dolayı soruna yönelik hızlı çözüm arayışında olmalarıyla açıklanabileceği düşünülmektedir.

Diğer yandan araştırmanın ikinci amacıyla ilgili yapılan analizler sonucunda ise, her iki grup anne için aile bağlılık ve esneklik boyutlarının yordayıcılarının farklılaştığı görülmüştür. Otizmi olan çocuğu bulunan Türk annelerinde sağlıklı aile bağlılık ve esnekliğini problem odaklı başa çıkma yolları yordarken, Amerikan anneler için dolaylı başa çıkma yolları

yordamaktadır. Bağlılık ve esneklik sağlıklı aile işlevselliğinin birincil göstergeleri arasında sayıldığından, bu kavramların yordayıcılarını iki farklı kültür annelerinin başa çıkma yolları açısından değerlendirme olanağı sunan bu araştırmanın, hem araştırma hem de klinik alanda önemli katkıları olacağı düşünülmektedir.

APPENDIX P

CURRICULUM VITAE

PERSONAL INFORMATION

Surname, Name:	Çelimli, Şeniz
Nationality:	Turkish (TC)
Date/Place of Birth:	19 April 1978, Ödemiş
Phone:	+ 90 (533) 662 34 48
E-mail:	senizcelimli@gmail.com

EDUCATION

2002 – present	Ph.D. candidate in Clinical Psychology Middle East Technical University *Dissertation title:* "A Comparative Study of Family Functioning Processes of Families with a Child with Autism in Turkey and the U.S." (Committee: Prof. Hürol Fışıloğlu (advisor), Prof. Ferhunde Öktem, Assoc. Prof. Sibel K. Berument, Prof. Tülin Gençöz, Prof. Melda Akçakın)
1997 – 2002	Middle East Technical University B.A. in Psychology

RESEARCH INTERESTS

- Developmental psychopathology
- Autism Spectrum Disorders
- Family functioning processes in families of a child with autism
- Cross cultural research in Autism Spectrum Disorders
- Play therapy applications

ACADEMIC/WORK EXPERIENCE

09/2008 – present Research Assistant - A Study of Adaptation and Standardization of Wechsler Intelligence Scale for Children – IV (*Funded by The Scientific and Technological Research Council of Turkey*)

- Preparing the grant proposal
- Coordinating the research team and the research activities
- Preparing regular progress reports

03/2007 – 06/2008 General Manager - Turkish Psychological Association

- Writing project proposals (assisted in the formation of project teams, planned project activities, prepared budgets, and initiated grant applications)
- Representing the association in various national and international platforms
- Performing administrative responsibilities

05/2002 – 05/2003 Research assistant of Assoc. Prof. Sibel K. Berument
Department of Psychology
Middle East Technical University

- Participating in a project aimed at analyzing the significance of number of siblings on children's socialization process
- Collecting data from 45 normally developing children of age 4

09/2001 – 05/2002 Student assistant of Assoc. Prof. Sibel K. Berument
Department of Psychology
Middle East Technical University

- Working for Developmental Psychology course for two semesters

PUBLICATIONS AND PRESENTATIONS

Eremsoy, C. E., Çelimli, Ş., and Gençöz, T. (2005). Students under academic stress in a Turkish university: variables associated with symptoms of depression and anxiety. *Current Psychology, 24 (2),* 123-133.

Yağmurlu, B., Berument, S. K., and Çelimli, Ş. (2005). The role of institution and home contexts in theory of mind development. *Applied Developmental Psychology, 26,* 521-537.

Eremsoy, C. E., Çelimli, Ş., and Gençöz, T. (2004). Students under academic stress in a Turkish university: variables associated with symptoms of depression and anxiety. *13th National Psychology Congress, İstanbul Bilgi University (Oral Presentation).*

PROFESSIONAL TRAININGS

11/2007 Project Cycle Management (PCM) Applied Training Program for the European Union Grant Projects
Ankara University Continuing Education Center

- Development of ideas for new projects
- Preparing of grant proposals
- Logical Framework Matrix analysis
- Project budget analysis and budget preparation applications

INTERNSHIPS

02/2007 – 06/2007 Department of Child Psychiatry
Hacettepe University Hospital

09/2006 – 01/2007 Clinic of Psychiatry
Ankara Numune Hospital

09/2005 – 12/2007 Clinical Psychology Unit
Department of Psychology
Middle East Technical University

- Individual psychotherapy applications under the supervision of the faculty of Clinical Psychology

09/2004 – 06/2005 Student Trainee – The Interdisciplinary Traineeship Prog
Elizabeth M. Boggs Center on Developmental Disabilities
University of Medicine and Dentistry of New Jersey

- Formulated the dissertation project
- Conducted interviews with persons who have an interest in autism (such as family members, people from academia, and people from advocacy services) in order to see family unit and professional support system interaction and their reciprocal contributions
- Participated in a project funded by National Institute of Health, designed to develop a comprehensive approach to behavioral support to families of children with developmental disabilities and identify problem behavior in terms of family routines
- Attended developmental disabilities lecture series

02/2004 – 06/2004 Adolescent Department
Clinic of Psychiatry
Ankara Social Security Hospital of Medical Education

09/2003 – 01/2004	Child Psychiatry Department Hacettepe University Hospital
02/2003 – 06/2003	Adolescent Department Clinic of Psychiatry Ankara Social Security Hospital of Medical Education

FELLOWSHIPS AND AWARDS

09/2004 – 08/2008	Fellowship Program for Integrated Doctoral Studies in Turkey and/or Abroad in Social Sciences and Humanities Turkish Academy of Sciences (TÜBA – BDBP)
2005	The Turkish Academy of Sciences (TÜBA), Program to Promote Quality Publications with: "Students under Academic Stress in a Turkish University:Variables Associated with Symptoms of Depression and Anxiety", *Current Psychology, 24 (2),* 123-133.
2002	Honor Degree in Graduating Class of 2002 Middle East Technical University

TESTS CONDUCTED

The Peabody Picture Vocabulary Test
Raven Colored Progressive Matrices
Wechsler Intelligence Scale for Children – Revised (WISC-R)
Wechsler Intelligence Scale for Adults – Revised (WAIS-R)
The Minnesota Multiphasic Personality Inventory (MMPI)
Rorschach Inkblot Test

LANGUAGES

Turkish (native)
English (advanced)

COMPUTER SKILLS

MS Office applications
SPSS
Lisrel