

145720

The Role of Parenting and Family Background on Turkish Adolescents' Academic  
Achievement

Thesis submitted to the  
Institute of Social Sciences  
in partial satisfaction of the requirements for the degree of

Master of Arts

in

Psychology

by

Friederike Heyndrickx

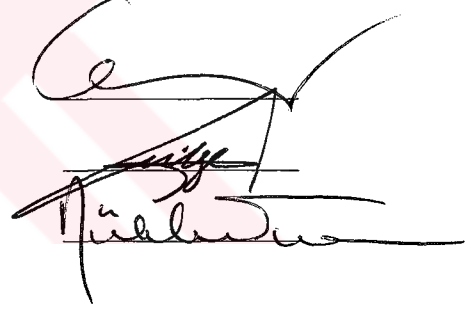
145720

Boğaziçi University

2004

The thesis of Friederike Heyndrickx  
is approved by:

Thesis Advisor Doç. Dr. İ. Ercan Alp  
Committee Member Y. Doç. Dr. Bilge Ataca  
Committee Member Prof. Dr. Nükhet Sirman

The image shows three handwritten signatures in black ink. The top signature is the most prominent and appears to be the signature of the thesis advisor, Doç. Dr. İ. Ercan Alp. Below it are two other signatures, likely belonging to the committee members Y. Doç. Dr. Bilge Ataca and Prof. Dr. Nükhet Sirman. The signatures are written in a cursive style.

## Acknowledgements

First of all I would like to thank Doç. Dr. Ercan Alp for his guidance and encouragement in the development and completion of this thesis. I can say that this thesis is the result of a collaborative effort and that without his expertise the completion of this thesis would not have been possible. I would also like to thank Y. Doç. Dr. Bilge Ataca and Prof. Dr. Nükhet Sirman for their valuable suggestions and criticism.

I would like to thank the guidance teachers and the students of the participating schools for their interest and cooperation with the data collection.

I thank all my friends and family who supported and helped me personally and emotionally during the completion of this thesis.

I would especially like to thank my mother, Arlette Verelst, who although being far away physically has always been near emotionally. Bedankt voor al de liefde en steun tijdens de moeilijke momenten.

And last, I dedicate this work to my husband Osman who spend so much time in helping me with the statistics and outline, who always encouraged me and who was next to me during difficult moments. I thank you for being there for me, I will always be there for you.

## Abstract

### The Role of Parenting and Family Background on Turkish Adolescents' Academic Achievement.

by

Friederike Heyndrickx

The major aim of the present study was to investigate the prediction of adolescents' academic achievement in the Turkish culture. Authoritativeness of the mother and the father, maternal employment, parental marital satisfaction, parental educational level and importance of education were proposed as predictive variables within a model. In the model it is suggested that (1) the predictive variables could have a direct effect on adolescents' academic achievement, (2) authoritativeness of mother and father could have a mediating role between parental education, maternal employment, parental marital satisfaction, and academic achievement, (3) importance of education and parental marital satisfaction could have a moderating role between authoritativeness of mother and father and academic achievement. A sample of 302 high-school students attending four private schools in Istanbul and living within an intact family were included in the study. A background questionnaire, Authoritativeness Measure (for mothers and fathers separately), importance of education questions and a parental Marital Satisfaction Scale were used for collecting data. The results indicated that for all adolescents, psychological autonomy of the mother and importance of education (asked in the negative) predicted academic achievement, with maternal

psychological autonomy granting being a stronger predictor. No mediating effects of psychological autonomy granting of the mother were found between any of the designated independent variables. Nor was there any evidence for moderating effects, with a single exception: in the case of girls, importance of education (asked in the positive) appeared to moderate the relationship between psychological autonomy granting of the father and their academic achievement. The findings were discussed in the context of the literature and suggestions were made for further research.



## Kısa Özet

### Türkiye’de Çocuk Yetiştirme Stili ve Aile Yapısının Ergenlik Çağındaki Öğrencilerin Okul Başarısına Etkileri

Friederike Heyndrickx

Bu çalışmanın temel amacı, ergenlik çağındaki öğrencilerin okul başarısına etki eden faktörlerin incelenmesidir. Anne ve babanın otoritatif tutumu, annenin çalışma durumu, ebeveynlerin evlilik tatminleri, ebeveynlerin eğitim seviyeleri ve eğitimin önemi bir model içinde yordayıcı değişkenler olarak kullanılmıştır. Modelde (1) yordayıcı değişkenlerin ergenlik çağındaki öğrencilerin okul başarısına doğrudan etkisi olabileceği, (2) anne ve babanın otoritatif tutumunun ebeveynlerin eğitim seviyeleri, annenin çalışma durumu, ebeveynlerin evlilik tatminleri ve okul başarısı arasında aracı rolü oynayabileceği, (3) eğitimin önemi ve ebeveynlerin evlilik tatminlerinin anne ve babanın otoritatif tutumu ve okul başarısı arasında modere edici rol oynayabileceği önerilmiştir. Çalışmada İstanbul’daki dört adet özel lisede öğrenim görmekte olan ve anne-babasıyla beraber yaşayan ergenlik çağındaki 302 genç yer almıştır. Verilerin toplanmasında aile yapısıyla ilgili anket, Otoritatiflik Ölçeği (anne ve babalar için ayrı ayrı), eğitimin önemi ile ilgili sorular ve Ebeveynlerin Evlilik Tatminleri Ölçeği kullanılmıştır. Bulgulara göre bütün ergenlerde annenin psikolojik özerklik sağlamanın ve eğitimin öneminin (olumsuz anlamda sorulduğunda) okul başarısını yordadığı bu değişkenlerden annenin psikolojik özerklik sağlamanın etkisinin daha

güçlü olduğu bulunmuştur. Annenin psikolojik özerklik sağlamanın bağımsız değişkenler arasında herhangi bir aracı rolünün olmadığı bulunmuştur. Modere edici etkiler açısından da bakıldığında bir istisna dışında herhangi bir kanıt bulunamamıştır: sadece kızlarda, eğitimin öneminin (olumlu anlamda sorulduğunda) babanın psikolojik otonomi sağlması ve okul başarısı arasındaki ilişkiyi modere ettiği görülmüştür. Araştırmadan elde edilen bulgular diğer araştırma bulguları çerçevesinde tartışılmış ve ileride gerçekleştirilecek araştırmalar için tavsiyeler sunulmuştur.

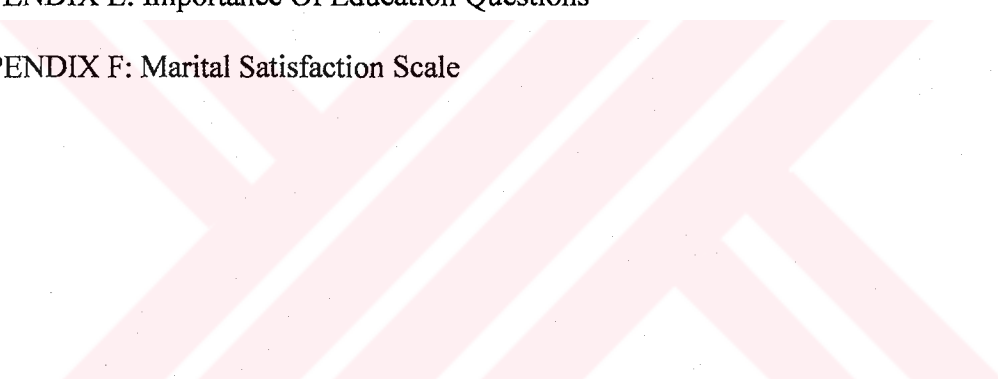


## Table of Contents

	Page
Title Page	i
Approval	ii
Acknowledgements	iii
Abstract	iv
Kısa Özet	vi
Table of Contents	viii
List of Tables	xi
List of Figures	xii
Introduction	1
Parenting Styles	2
Parenting Styles and Academic Achievement	3
Parenting Styles and Academic Achievement across Different Groups	8
Marital satisfaction and Academic Achievement	14
Maternal Employment and Academic Achievement	16
Parental Education and Academic Achievement	18
Importance of Education and Academic Achievement	19
The Model	21
Hypotheses (Questions to be answered)	24
Method	25
Participants	25
Materials	26

Background Questionnaire	26
Academic Achievement	26
Authoritativeness Measure	27
Marital Satisfaction Scale	29
Importance of Education	30
Procedure	31
Results	32
Preliminary Analyses	32
Academic Achievement	32
Authoritativeness Measure	33
Parenting Dimensions	33
Maternal and Paternal Authoritativeness Measures	36
Authoritativeness Scores	37
Importance of Education	38
Educational Level of Parents	39
Relations between Authoritativeness and the Remaining Independent Variables	41
Parental Marital Satisfaction and Maternal and Paternal Authoritativeness Scores	44
Parental Educational Level and Maternal and Paternal Authoritativeness Scores	45
Maternal Employment and Maternal and Paternal Authoritativeness Scores	46

Testing the Model	49
Discussion	54
References	64
APPENDIX A: Introductory Letter for Adolescents and Background Questionnaire	70
APPENDIX B: Authoritativeness Measure for Mothers	72
APPENDIX C: Authoritativeness Measure for Fathers	74
APPENDIX D: Curfew Questions	76
APPENDIX E: Importance Of Education Questions	77
APPENDIX F: Marital Satisfaction Scale	78



## List of Tables

	Page
Table 1: Means, Standard Deviations and Skewness Values of the GPA's of Each School	33
Table 2: Means, Ranges, Standard Deviations and Skewness Values for the Three Parenting Dimensions of the Authoritativeness Measure	35
Table 3: Composition of the Authoritativeness Measure	38
Table 4: Mean Years of Education of Mothers and Fathers from Robert College, Saint Benoit, FMV Işık and Üsküdar American Academy	40
Table 5: The correlations between the Independent Variables and the Dependent Variable (Academic Achievement) for all the Participants (N =302)	42
Table 6: The correlations between the Independent Variables and the Dependent Variable (Academic Achievement) for Girls (N= 164) and Boys (N =138)	43
Table 7: Means, Standard Deviations and t-values for the three Parenting Dimensions in terms of Maternal Employment	48
Table 8: Regression of the Independent variables on Academic Achievement	51
Table 9: Hierarchical Regressions for the Moderating Effect of Importance of Education (asked in the positive) on the Relation between Paternal Psychological Autonomy Granting and Academic Achievement for girls	52

## List of Figures

	Page
Figure 1: Prediction of Academic Achievement from Maternal and Paternal Authoritativeness, Parental education, Maternal employment, Marital Satisfaction and Importance of Education	23
Figure 2: Interaction between Parental Psychological Autonomy Granting and Importance of Education Predicting Girls' GPA	53



## Introduction

Parents play an important role in the development of their children. The beliefs and values they hold and the rearing practices they engage in help shaping their children development towards certain goals. These parenting practices influence children's behavioral outcomes. One of these outcomes is academic achievement. For school children an important aspect in their life is how well they do in school and thus is also an indicator of their future achievements.

The main aim of this study is to explore the predictors of adolescents' academic achievement in the Turkish culture. A model based on former research is proposed. Authoritativeness of the mother and the father, maternal employment, parental marital satisfaction, parental educational level and importance of education (asked both in the positive and negative way) were proposed as predictive variables. More specifically, this model will explore the direct and indirect ways these variables may affect adolescents' academic achievement.

### *Parenting Styles*

The parenting style concept has been introduced to the literature by Diana Baumrind (1967; as cited in Maccoby & Martin, 1983) who assumed that within parenting, the main role is to influence, teach and control children. Parenting style can be seen in a two-dimensional spectrum with parental responsiveness and parental demandingness as its elements (Maccoby & Martin, 1983).

The traditional way of looking at parenting is by the use of three categories: *authoritarian*, *authoritative* and *permissive* (Baumrind, 1967; as cited in Maccoby & Martin, 1983). The first encompasses parents who show behaviors of strictness, punitiveness and demandingness. There is no democratic decision making and parents often punish those who do not comply and reward the ones who do. Thus, *authoritarian* parents control and shape their children according to strict inflexible rules and expect complete obedience. The second, *authoritative* parenting, involves a combination of firm but fair discipline and showing warmth, love, and affection toward children in a democratic way. Thus, authoritative parents encourage discussion to give the opportunity to share reasoning behind rules with the children. The last category, *permissive* parenting style includes parenting behaviors with few rules, a great deal of child freedom and few attempts to control behavior or gain compliance. In general permissive parenting is coupled with tolerance, acceptance, high responsiveness, and low demandingness on children. Baumrind (1967, as cited in Maccoby & Martin, 1983) presumed that authoritative parents are the most likely to facilitate competence and achievement because they encourage independent behavior and responsibility. Research has supported this line of thinking, for example, Lamborn, Mounts, Steinberg and

Dornbush (1991) have shown in their study that adolescents who indicated their families as authoritative, report significantly higher academic competence, score higher on psychosocial competence and lowest on behavioral dysfunction when compared to their peers' parents adopting the other family styles. Similarly, Dornbush, Ritter, Leiderman, Roberts and Fraleigh (1987) found that children with authoritative parents have higher academic performance and lower substance use than children with parents from other categories.

Maccoby and Martin (1983) conceptualized parenting styles to involve two dimensions: responsiveness and demandingness. Responsiveness includes love and acceptance whereas demandingness indicates control. These researchers developed four types of parenting styles by the use of these two dimensions. *Authoritarian* parents can be described as low on responsiveness and high on demandingness; *authoritative* parents score high on both responsiveness and demandingness; *permissive* parents are described as high on responsiveness and low on demandingness and as last there are the *neglecting* parents who are characterized as being low on both dimensions.

### *Parenting Styles and Academic Achievement*

Research involving parental styles has focused on a variety of adolescent outcomes, including psychosocial development, social competence, problem behavior and academic achievement (Dornbusch et al., 1987; Gray & Steinberg, 1999; Grolnick & Ryan, 1989; Lamborn et al., 1991; Mattanah, 2001; Steinberg, Elmen & Mounts, 1989; Steinberg, Lamborn, Dornbusch, & Darling, 1992; Weiss & Schwarz, 1996). The literature concerning the link between parenting styles and academic achievement can be

divided into two groups. On the one hand there is a pool of studies in which parenting style is treated as a categorical variable (i.e. *authoritative, authoritarian and permissive*). They attempt to show different outcomes associated with each style (e.g. Dornbusch et al., 1987; Kim & Rohner, 2002; Lamborn et al., 1991; Weiss & Schwarz, 1996). The other line of studies concentrates on the different dimensions of parenting including *involvement, strictness/supervision* and *psychological autonomy granting* (Bumpus, Crouter & McHale, 2001; Gray & Steinberg, 1996; Grolnick & Ryan, 1989; Juang & Silbereisen, 2002; Mattanah, 2001; Steinberg et al., 1989). In these studies, the dimensions that are presumed to underlie parenting style are treated as continuous variables. The warmth (*involvement*) dimension can be defined as parental behaviors which show the child that s/he is accepted and loved. The control (*strictness/supervision*) dimension can be described as those parental behaviors that aim to direct the child to behave in a manner that is consistent with the expectations of the parents. This concept includes parental monitoring, giving directions and instructions, rules and regulations, and punishment. *Psychological autonomy granting* includes those parental behaviors that encourage independence and individuality and in which noncoercive and democratic discipline is employed.

The following findings emerged from the studies in which parenting style was treated as a categorical variable: adolescents who have authoritative parents (1) rate themselves and are rated by others as more socially competent and (2) show better academic achievement than adolescents with non-authoritative parents (Dornbusch et al., 1987; Lamborn et al., 1991; Weiss & Schwarz, 1996).

In the study by Dornbusch et al. (1987) an unusually large sample of adolescents was employed and data concerning parenting styles, background information and school grades were obtained. The results indicated that both permissive and authoritarian parenting styles were negatively correlated with grades whereas a positive correlation was observed between authoritative parenting style and academic outcome. It should be noted that only 50% of the families could be identified as having a pure form of one of the parenting styles (i.e. authoritarian, permissive or authoritative). The other half of the families were categorized as inconsistent families meaning that a combination of parenting styles could be observed within one family--i.e. authoritarian and permissive, authoritarian and authoritative, permissive and authoritative and; authoritarian, permissive and authoritative. When adolescents from consistent and inconsistent families were compared, adolescents from any of the inconsistent families showed an overall lower grade average than adolescents from any of the families with a pure parenting style. This finding should be taken into consideration when categorizing families in a strict manner.

Lamborn et al. (1991) classified their participants into four groups (*authoritative, authoritarian, indulgent and neglectful*) and were then compared on four outcomes: psychosocial development, internalized distress, problem behavior and academic achievement. The results indicated that adolescents from authoritative homes report significantly higher academic competence, better adjusted and are less likely to get into trouble than adolescents from authoritarian, indulgent or neglectful families. Adolescents from neglectful families show the opposite outcomes in that they show significantly lower academic achievement and adjustment and are more likely to get into

trouble than the adolescents with families from the other styles. The other two groups had mixed results. Adolescents from indulgent families (i.e. high in responsiveness, low in demandingness) are more likely to display some problem behavior and have a lower GPA, but they have higher self-esteem, better social skills, and lower levels of depression when compared with adolescents from authoritarian families.

Weiss and Schwarz (1996) used a slightly different classification of parenting style. Seven classifications were identified through the use of the two-dimensional model of Maccoby and Martin (1983): authoritative (warm and firm), democratic (warm and modestly firm), permissive (warm and not firm), authoritarian-directive (not warm and highly firm), nonauthoritarian-directive (not warm and modestly firm), unengaged (not warm and not firm) and good enough (modestly warm and modestly firm). In general, students from authoritative, permissive and democratic families showed overall positive outcomes (personality, adjustment, substance use and academic achievement) whereas students from authoritarian-directive, nonauthoritarian-directive and unengaged showed less positive outcomes. When looking at academic achievement only, it is interesting to note that students from permissive homes had a significantly higher GPA than students from authoritarian-directive and democratic homes.

The second line of studies concentrated on the different dimensions of parenting including *involvement, strictness/supervision and psychological autonomy granting* and their impact on academic achievement. The way of exploring these continuous variables was developed by Steinberg, Elmen and Mounds (1989). The researchers explored how these three dimensions of parenting are related to academic achievement and how school success is mediated through psychosocial maturity. The results showed that the each

parenting dimension—*involvement, psychological autonomy granting and strictness/supervision*—has a positive correlation with GPA. Additionally, it was found that authoritative parenting improves the adolescent's psychosocial maturity which in turn contributes to academic achievement. In general, the researchers conclude that adolescents with warm, democratic but firm parents tend to form positive attitudes and beliefs about their competence and achievement which then has an influence on being successful in school.

In further studies, Steinberg et al. (1992) developed a different way of categorizing parenting styles. Within their categorization the three dimensions of parenting (*involvement, strictness/supervision and psychological autonomy granting*) are tapped separately which are then combined to form degrees of authoritativeness. That is families with scores above the median on all three dimensions are considered authoritative. Families with scores under the median on all three dimensions are considered as non-authoritative. Families scoring above the median on one dimension are classified as somewhat non-authoritative and families scoring above the median on two dimensions are classified as somewhat authoritative. The researchers found that *authoritative* parenting has a significant impact on academic achievement and school engagement. The results also indicated that the more authoritative the family is, the better the academic achievement of the adolescent is. However, it is important to note that the effect sizes between authoritative, somewhat authoritative and somewhat non-authoritative are moderate whereas the differences between authoritative and non-authoritative show a large effect. Steinberg et al. (1992) also point out that authoritative

parents tend to be more involved with their children, which in turn positively influences the academic performance and academic engagement of the children.

Gray and Steinberg (1999) also examined the different dimensions of authoritative parenting and their contributions to various outcomes. The results showed that all the three dimensions are significantly associated with academic competence. In other words each dimension was positively related to academic outcome and each dimension had a unique prediction to this outcome. It is worthwhile to note that parental control had a small effect whereas involvement and psychological autonomy granting showed a medium effect.

In summary, it can be assumed that, within a Western context, the more authoritative the families the better children do at school and that each dimension has a contribution to children's academic achievement.

#### *Parenting Styles and Academic Achievement across Different Groups*

It has been shown in several studies that the effect of parenting styles and the three parenting dimensions on academic achievement may be moderated by certain variables such as adolescent's gender and cultural background of the family (Chen, Dong & Zhou, 1997; Chen, Liu & Li, 2000; Grolnick & Ryan, 1989; Kim & Rohner, 2002; Mattanah, 2001, Steinberg, Dornbusch, & Brown, 1992). The effects of parenting styles on girls' and boys' achievement have been explored in two ways: either the parenting style as a categorical variable or the three parenting dimensions separately (e.g. Grolnick & Ryan, 1989; Güroğlu, 2002; Kim & Rohner, 2002; Mattanah, 2001; Steinberg et al., 1989; Weiss & Schwarz, 1996). Weiss and Schwarz (1996) showed in

their study that boys with authoritative parents have a significantly higher GPA than boys with authoritarian parents. Girls with permissive or authoritative parents have a significantly higher GPA than girls from other families. It is important to note that these findings do not implement that parenting styles explain the differences of GPA between boys and girls but rather explicates differential effects of parenting style depending on the child's gender.

Another way of exploring the effects of parenting styles on academic achievement is by looking separately at the parenting styles of fathers and mothers. Kim and Rohner (2002) explored the relation between Baumrind's categories and the GPA of Korean American adolescents. This study found that children with authoritative or permissive fathers performed better than children raised by authoritarian fathers, but such a main effect could not be found for mother's parenting style. The researchers also explored the three continuous parenting dimensions separately, as only 26 % of the participants could be categorized within Baumrind's typology. The results indicated no differences between maternal and paternal parenting dimensions. It was shown that both maternal and paternal acceptance and involvement was significantly correlated with GPA and that neither maternal nor paternal control was related with GPA. In other words, the warmer and more involved the adolescents perceived their parents, the better they did in school.

Other studies focused only on how the three different parenting dimensions are related to the academic achievement of boys and girls separately (Grolnick & Ryan, 1989; Güroğlu, 2002; Kim & Rohner, 2002; Mattanah, 2001; Steinberg et al., 1989). Steinberg et al. (1989) showed in their study that parents interact significantly differently

with their sons and daughters. They suggest that *involvement* has a stronger positive impact on girls' academic achievement than boys, whereas *strictness/supervision* has a stronger positive impact on boys' academic achievement compared to girls. Further research indicated that parental *psychological autonomy granting* had a positive relation with standardized achievement scores (Metropolitan Achievement Test and Pupil Educational Progress test) and classroom grades but that only maternal *involvement* had a positive effect on standardized achievement scores and classroom grades (Grolnick & Ryan, 1989). In similar vein, Mattanah (2001) showed that paternal *psychological autonomy granting* correlated significantly with greater academic competence for both girls and boys whereas maternal *psychological autonomy granting* was correlated with boys' academic competence but not with girls' academic competence. In contrast with this study, Güroğlu (2002), in her research with Turkish adolescents and their mothers, showed that maternal *psychological autonomy granting* was significantly correlated with girls' academic achievement but not with boys' academic achievement.

Another consideration is about the differences in the distribution of parenting styles in different subpopulations. Although in the United States authoritative parenting is most common among intact, middle-class families of European origin, a similar relationship between authoritativeness and adolescent outcomes can be observed across groups (Steinberg et al., 1992). There are some exceptions, however. Although authoritative parenting seems to predict good psychosocial outcomes and fewer problem behaviors for adolescents in all ethnic groups studied (African-, Asian-, European-, and Hispanic Americans), academic performance correlates with authoritativeness only with European Americans and Hispanic Americans—to a lower degree in the case of the latter

(Steinberg et al., 1992). For African American adolescents, peers seem to have a greater influence on academic achievement; in other words, even though African American adolescents benefit from authoritative parenting, they are more apt to comply with peers' values and behaviors which may lead to lower academic achievement. The study of these researchers indicated that authoritarian parenting styles were more often observed in Asian families in which the children scored as well or even better than children within an authoritative family (Steinberg et al., 1992).

There can be several explanations for these results. First, it can be that the scales used in the West are not suitable for other cultures or subcultures because other parenting styles may be adopted by parents in those cultures. Chao (1994), for example, showed that within the Chinese culture another parenting style identified as "training" can be noticed. This style emphasizes the importance of parental control, the need to work hard, be disciplined and perform well in school. In addition, it includes involvement and support of children which is seen as parental responsiveness rather than an emotional intimacy. This cultural parenting style cannot be clearly placed within the traditional Western typology of parenting types and needs to be tapped with parenting scales suitable for the culture. Thus, the current model of parenting reflects the historical influences and beliefs of raising children within the Western context. This model might not be suitable for other cultures, such as Asians, as they hold a different belief system for raising children and therefore adopt a different parenting style, i.e., training (Chao, 1994).

Secondly, even if parenting styles are the same across cultures, it can be that across cultures different parenting styles predict academic achievement. Researchers

have argued that ethnic differences within the link of parenting styles and adolescent outcomes may be expected because of the differences in social context, parenting practices or the cultural meaning of specific dimensions of parenting style (e.g. Chao, 1994; Chen et al., 1997; Chen et al. 2000; Darling & Steinberg, 1993; Kim & Rohner, 2002). That is different cultures hold different parenting styles when measured with the same scale. As discussed above, the model of parenting practices has been intensely studied and developed within a European-American context and has been assumed to be the norm in other cultures as well. This introduces a problem in interpreting data concerning parenting styles in other cultures because each culture or sub-culture has its own understanding of parenting (Chao, 1994; Chao, 2001; Stewart & Bond, 2002). In other words, there might be a problem in measuring parenting through the use of typologies (i.e. *authoritative*, *permissive* and *authoritarian*) within other cultures and sub-cultures in the West. For example, it has been demonstrated that *authoritative* parenting is related positively to academic achievement in European-American children (Steinberg et al., 1991; Steinberg et al., 1992). Whereas for other sub-cultures, for example Asian Americans, the predictor of academic achievement seems to be *authoritarian* parenting as measured by the available scales. Chao (2001), on the other hand, showed that first-generation Chinese American adolescents from authoritative families did not differ in terms of school performance from authoritarian families. Such a difference on the other hand could be observed within the European American adolescents, that is, adolescents raised with authoritative parenting scored better than their authoritarian counterparts.

Thirdly, it might be that cultures differ in terms of the continuous parenting variables, *parental control, involvement* and *psychological autonomy granting*. Stewart and Bond (2002) suggest that it is better to look at the effects of the three dimensions of parenting separately across different cultures. Thus, instead of assessing the effect of parenting styles as a categorical variable, the effects of *parental control, involvement* and *psychological autonomy granting* should be examined separately. In doing this it is important that each item within each scale is not only translated but also adapted to the culture they will be used in. By doing this, firstly, the relationship between a single parenting dimension and outcomes (e.g. academic achievement) is easier to interpret than by the use of parenting style as a categorical variable. Secondly, this way of studying the effect of parenting on outcomes makes clear which combination of parenting dimensions is of importance in a particular culture. In the Turkish context, Güroğlu (2002) has shown in her study, assessing maternal parenting, that only *psychological autonomy granting and strictness/supervision* positively correlated with adolescents' academic achievement whereas *involvement* was not. Yet, when the data were reanalyzed separately for boys and girls, it became apparent that only in the case of girls, *psychological autonomy granting* scores correlated positively with academic achievement. A qualitative study was conducted by Alp and Sirman (2003) to explore the meaning of the items on two scales -- *involvement* and *psychological autonomy granting* -- for the adolescents in this culture. They carried out a semi-structured interview with 16 students taking into account gender, academic achievement level and maternal employment. They concluded that some items did not convey the intended meaning or were inappropriate. Furthermore, four out of eight children in the lower

achievement group came from broken families and one child reported serious marital problems of the parents. Therefore, in the present study a revised version of the measure was used and only children from intact families were included.

### *Marital satisfaction and Academic Achievement*

Recent research has indicated that marital adjustment is related with parenting behaviors and children's behavioral outcomes including social competence and academic performance (Belsky, 1990; Erel & Burman, 1995; Feldman, Wentzel, Weinberger, & Munson, 1990; Katz & Gottman, 1993; Yilmaz, 2001). These studies have followed the general idea that when parents have a satisfying marital relationship they have a better relationship with their child, that is, they are generally more available to their children which, in turn, has an effect on children's behavioral outcomes. In other words, Erel and Burman (1995) suggest that positive marital relationships are related with positive parent-child relationship quality whereas a negative marital relationship quality is thought to be related with a negative parent-child relationship quality. This line of thinking has been referred to as the spillover hypothesis, meaning that there is a direct transfer of mood, affect or behavior from one setting to another (Repetti, 1987; as cited in Erel & Burman, 1995). Marital satisfaction provides parents with the necessary emotional resources to establish a warm and positive family environment for their children. Therefore, a satisfied marriage helps in engaging in the best child rearing practices (Burman, John & Margolin, 1988). It can be said that marital satisfaction can have either a direct or indirect link with children's behavioral outcomes. Feldman et al. (1990) studied the relationship between marital satisfaction as

perceived by mothers and fathers separately and their sons' socio-emotional and academic outcomes. The results showed that fathers' marital satisfaction was significantly correlated with school achievement, whereas such a relation could not be found for the mothers. The researchers also found that although some of the relationship between marital satisfaction and child outcomes could be explained in part by child-rearing practices, marital satisfaction remains an independent and significant predictor of school achievement. Child rearing practices were assessed through the use of the Weinberger Parenting Inventory (Weinberger, Feldman & Ford, 1989, as cited in Feldman et al., 1990), which measures three dimensions: power assertion (extent of authoritarian and disciplinary techniques), inconsistency (extent of arbitrary parenting behavior) and child-centeredness (extent of child's psychological welfare promotion). Thus, in the former study, the exploration was between marital satisfaction and child rearing practices rather than exploring the relationship between the three different dimensions of parenting practices and marital satisfaction. A study conducted within a Turkish setting investigated the relationship between marital adjustment as reported by the mothers only and children's perception of parenting styles (Yılmaz, 2001). The results indicated that marital adjustment was not related to academic achievement in any of the three age groups: elementary school, high school and college students. Among the three parenting dimensions, psychological autonomy granting predicted academic achievement in high school students only. None of the dimensions predicted academic achievement in elementary school and college students. In addition, girls had a higher GPA than boys both at high school and college level.

It has also been shown that marital satisfaction of fathers and mothers has a differential effect on their sons and daughters (Cox, Owen, Lewis & Henderson, 1989; Kerig, Cowan & Cowan, 1993). In other words, when the quality of the marriage is low and the parents are dissatisfied with their marriage they are more likely to be gender differentiating towards their children (Howes & Markman, 1989; Kerig, Cowan & Cowan, 1993). It has been shown that parents with a negative marital relationship tend to have a more negative relationship with their child from the other sex whereas they tend to compensate for losses and have a more positive relationship with their child from same sex. Kerig et al. (1993) demonstrated in their observational study that the feeling parents had about their marriage moderated the relationship with their children. More specifically, fathers who were maritally less satisfied showed more negative interactions with their daughters than with their sons. Mothers in less satisfied marriages were more likely to reciprocate the negative affect of sons.

As mentioned above, Alp and Sirman (2003) suggested that marital satisfaction could play a role on academic achievement. In the present study, the perceived parental marital satisfaction will be explored for boys and girls separately within a Turkish setting.

### *Maternal Employment and Academic Achievement*

In earlier research it has been found that maternal employment has an impact on adolescents' academic achievement (Banducci, 1967; as cited Crouter, MacDermid, McHale, & Perry-Jenkins, 1990). That is, within a Western setting with young children, boys from middle class families with non-employed mothers achieve better than boys

with employed mothers. Girls, on the other hand, do not show a difference in academic achievement. Bogenschneider and Steinberg (1994) wanted to examine the effect of maternal employment on academic achievement with an older sample from various socio-economic backgrounds. They asked high school students questions about parental employment (e.g., full time, part-time, non-employed), family characteristics (e.g., SES) and school grades. The results showed that boys from upper middle-class and middle-class families reported lower grades when their mothers worked full-time. In contrast, employment of the mother did not affect academic achievement among girls from upper middle-class and middle-class families or among boys and girls from working class families.

Other researchers on the other hand could not establish a difference in academic achievement between adolescents whose mothers are employed and those whose mothers are non-employed (Crouter et al., 1990; Paulson, 1996). It was therefore suggested that the three parenting dimensions (*involvement, psychological autonomy granting and strictness/supervision*) might be different in families with employed mothers than in families with non-employed mothers. That is, the parenting dimensions may mediate the relationship between maternal employment and academic achievement, though research has been inconsistent. Muller (1995) has shown that children from non-employed and part-time employed mothers have higher mathematics grades than full-time employed mothers. However, when involvement (measured as level of communication with their child, interest in their child's daily experiences, knowledge about their child's whereabouts, time spend together with their child) is added, children from part-time employed mothers report higher level of involvement and have higher

level of achievement than children with full-time or non-employed mothers. The differences in achievement of children with full-time employed and non-employed mothers disappear when involvement is taken into account. It is interesting to note however that the part-time employed mothers mostly came from intact families with a higher income and higher educational level when compared with mothers from the other families. Thus, socioeconomic status may have interfered with the mediating role of involvement between maternal employment and achievement.

Other researchers were not able to show a difference on the parenting dimensions between families with employed mothers and those with non-employed mothers (Grolnick & Ryan, 1989; Jacobson & Crockett, 2000; Paulson, 1996). Crouter et al. (1990), for example, showed that parental monitoring does not differ between students whose mothers are employed and those whose mothers are at home. Thus, mixed results have been found within the American middle class setting. In the present study, maternal employment will be taken into consideration to explore the differences on academic achievement between employed and non-employed mothers within a Turkish setting.

#### *Parental Education and Academic Achievement*

In previous research, it has been demonstrated that the educational level of the parents has an effect on parenting styles and academic achievement (Chen et al., 1997; Dornbusch et al., 1987; Gray & Steinberg, 1999; Güroğlu, 2002; Lamborn et al., 1991; Kim and Rohner, 2002). Some studies have verified that there is a direct link between parental education and adolescents' academic achievement; that is, the better educated


the parents are, the better students tend to achieve in school (Kim and Rohner, 2002). Güroğlu (2002) showed that when the educational level of the parents increases academic achievement also increases. It is interesting to note that within a Turkish setting, fathers' educational level is positively correlated for both boys and girls whereas mothers' education is only significantly correlated with girls' GPA but not with boys' GPA. Mattanah (2001), on the contrary could not confirm a direct link between educational level of the parents and academic achievement.

Other research has supported the idea of an indirect link between parental education and academic achievement meaning that parents with a higher educational level are more likely to use authoritative practices than authoritarian practices, which then influences the adolescents' academic achievement (Chen et al., 1997; Dornbusch et al., 1987). Kim and Rohner (2002), for example, showed that better educated parents, when compared to less educated parents, were more involved with their children, leading to better academic achievement. Mattanah (2002), on the other hand, showed that although a positive correlation existed between maternal education and parental involvement, the link did not go further to academic achievement. In the present study, the links between parental education and adolescents' academic achievement are explored.

#### *Importance of Education and Academic Achievement*

Ogbu (1978, as cited in Steinberg, Dornbusch & Brown, 1992) has argued that beliefs about the relationship between education and future life-success influences performance and engagement in school. In other words, when a student believes that there is a positive connection between present education and future jobs, they will tend

to do better in school. Although Steinberg et al. (1992) found this to be true, they also showed that the belief of negative consequences of school failure was a better predictor of school performance and engagement. That is, the more adolescents believe that not getting a good education hurts their chance in later life, the better they do in school. Güroğlu (2002) showed that within a Turkish setting the two beliefs were positively correlated with each other. However, the scores on neither of the questions correlated with academic achievement in boys. In the case of girls, responses to the second question correlated negatively with academic achievement. That is, the less likely they think they will get a job that they prefer if they do not get a good education, the higher were their grades.



### The Model

The literature review helps formulating a model that can explain adolescents' academic achievement in the Turkish culture (see Figure 1). Based on former research, it is proposed that parenting practices of both father and mother may have an influence on the adolescents' academic achievement (Dornbusch et al., 1987; Gray & Steinberg, 1999; Grolnick & Ryan, 1989; Lamborn et al., 1991; Mattanah, 2001; Steinberg et al., 1989; Steinberg et al., 1992; Weiss & Schwarz, 1996). In general, it has been concluded that each parenting dimension has a positive influence on adolescent's academic achievement within a North-American context. But this does not seem to be true for all cultures or subcultures (e.g. Steinberg et al., 1989; Kim & Rohner, 2002). Keeping in mind that it is better to look at the effects of the three parenting dimensions separately across cultures (Stewart & Bond, 2002), it is opted to do so in exploring the prediction of academic achievement within the Turkish culture. In addition, the parenting scales used by Güroğlu (2002) were revised and adapted to the Turkish culture after the qualitative study by Alp and Sirman (2003). As given the limitations of Güroğlu's study, it is proposed that factors other than parental dimensions might also play a role in the predication of academic achievement. It is assumed that parental education and maternal employment may have a direct effect on academic achievement or the parental dimensions may mediate between these two variables and academic achievement. The level of marital satisfaction and importance of education for the adolescence are also taken into consideration. Within this study we explore the following directions: (1) do marital satisfaction and importance of education have a direct influence on academic achievement? (2) do marital satisfaction and importance of education have a moderating

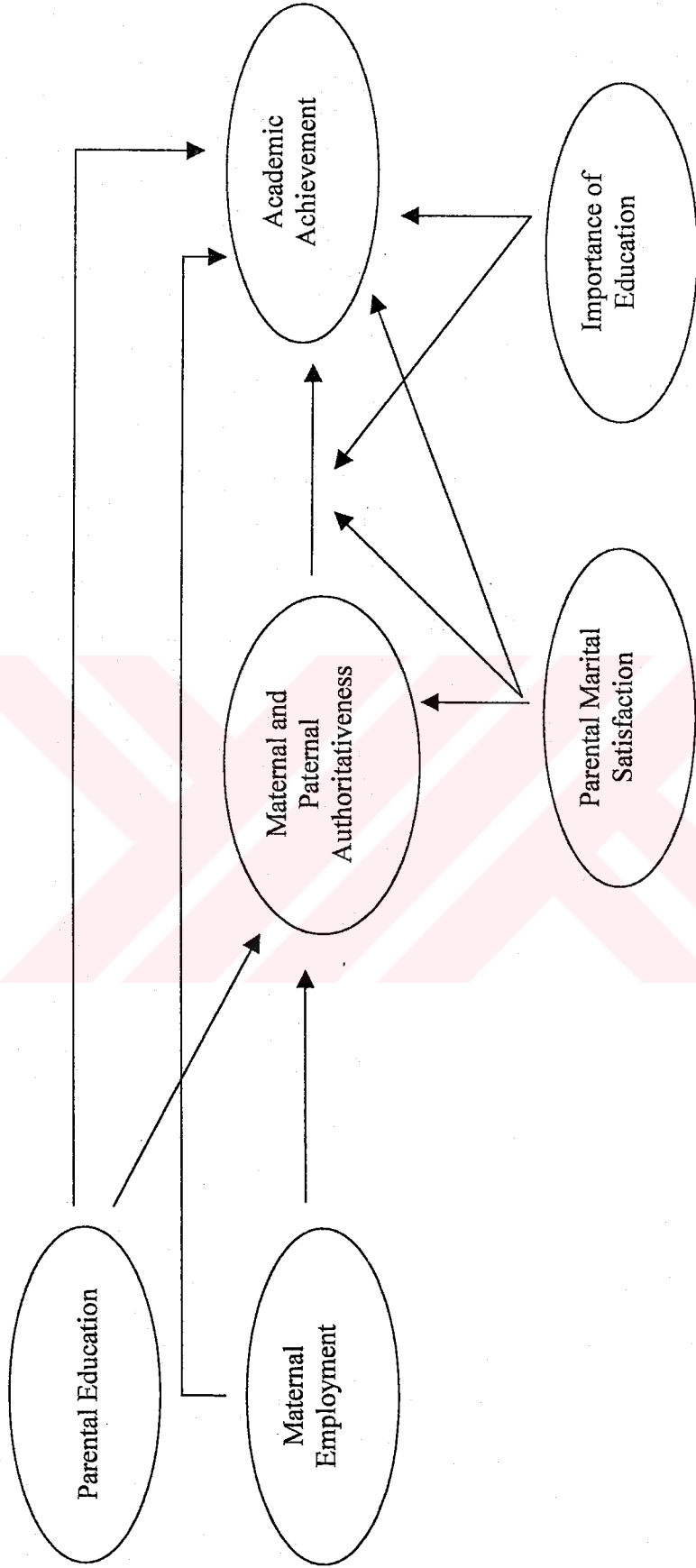
role between parenting practices and academic achievement? and (3) do parenting practices have a mediating role between marital satisfaction and academic achievement.

Lastly, it is important to note that in this study, the adolescents are asked to consider parenting styles separately for their father and mother in order to gain insight into the association between gender of parents and the adolescents' academic achievement.



Figure 1:

Prediction of Academic Achievement from Maternal and Paternal Authoritativeness, Parental Education, Maternal Employment, Marital Satisfaction and Importance of Education.



**Parental Education:** educational level of mother and father  
**Maternal and Paternal Authoritativeness:** involvement, strictness/supervision and psychological autonomy granting for mothers and fathers  
**Importance of Education:** asked in the positive and in the negative

*Hypotheses (Questions to be answered)*

The main aim of this study is to explore the predictive relations as seen in Figure 1. The following questions are asked:

1. Do the three parenting dimensions (*involvement, strictness/supervision and psychological autonomy granting*) assessed separately for mother and father predict adolescents' academic achievement?
2. a. Does parental education predict adolescents' academic achievement?  
b. Do the parenting dimensions play a mediating role between parental education and adolescents' academic achievement?
3. a. Does maternal employment predict adolescents' academic achievement?  
b. Do the parenting dimensions play a mediating role between maternal employment and adolescents' academic achievement?
4. a. Do adolescents' beliefs about importance of education (asked in the positive and the negative) for finding a job they prefer later on predict their academic achievement?  
b. Do adolescents' beliefs about importance of education (asked in the positive and the negative) for finding a job they prefer later on play a moderating role between parenting dimensions and adolescents' academic achievement?
5. a. Does the perceived marital satisfaction of the parents--as reported by the child-- predict adolescents' academic achievement?  
b. Do the parenting dimensions play a mediating role between perceived marital satisfaction and adolescents' academic achievement?  
c. Does perceived marital satisfaction play a moderating role between parenting dimensions and adolescents' academic achievement?

## Method

### *Participants*

The sample consisted of 379 high school students (201 girls and 178 boys) at four private schools in Istanbul. The private schools that participated in this study were Saint Benoit (n = 116), Üsküdar American Academy (n = 130), Robert College (n = 82), and FMV Ayazağa Işık (n = 51). These private schools mainly have students from upper-middle to high socio-economic classes. Üsküdar American Academy and Robert College are schools with bilingual education in English and Turkish. Saint Benoit is a school giving bilingual education in French and Turkish whereas FMV Ayazağa Işık has mainly Turkish education, yet has 10 hours of English classes a week. The ages of the students ranged from 14 to 18 years, with a mean age of 15.8 and a standard deviation of 0.62.

Among the students who participated in this study, 321 (84.7 %) were from intact families, 40 (10.6%) were living with one parent, 7 (1.9%) with parent and stepparent, and 10 (2.6%) students lived in a dormitory. Only the data from the students from intact families were included in the analyses. Within this group 12 students did not complete the maternal and/or paternal authoritativeness measure, 5 students did not complete the marital satisfaction scale and 2 students did not complete maternal and/or paternal educational level. The reduced sample size included in the analyses was 302, 138 boys and 164 girls (45.7% and 54.3 % of the sample, respectively).

More than half of the students came from families in which the mother did not work (54.6%) and 10% of the students came from families in which the father did not work. Most mothers had either a high school diploma (28.8%) or a university (47.4%) or a graduate (16.5%) degree. The remaining mothers had graduated from

primary school (1%), junior high (1%) or junior college (5.3%). Most of the fathers had a university (56.3 %) or graduate (26.8%) degree. The remaining group of fathers had either a high school diploma (11.9%) or a junior college degree (1%) or a junior high (2.3 %) or a primary school (1.7%) diploma.

Most of the participants ( $n = 186$ ) came from families with two children, 76 participants came from families with only one child, and 40 had two or more siblings. A similar pattern could be found for boys and girls separately, namely, 41 boys and 35 girls were only child, 81 boys and 105 girls came from families with two children, and 15 boys and 25 girls came from families with more than 2 children.

## *Materials*

### *Background Questionnaire*

The first part of the questionnaire included questions about age, gender, years spent in the present high school, number of siblings, order among the siblings and family structure. In addition, the students were asked to indicate the educational level of both father and mother. There were 6 categories to choose from: (1) elementary school, (2) junior high, (3) high school, (4) junior college, (5) university and (6) graduate school. These categories respond, respectively, to 5, 8, 11, 13, 15 and more than 15 years of education. Also the students were asked if their parents worked and if they did, they were asked to indicate what kind of work their parents did and whether they worked full-time or part-time.

### *Academic Achievement*

The GPA's of the participants were obtained from the official school records. As the individual schools employed different grading systems, the GPA's were

converted into Z-scores. When analyzing the schools separately, however, the original GPA's were used.

### *Authoritativeness Measure*

The participants were asked to complete the Authoritativeness measure (Steinberg et al., 1989) for the mother and the father, separately. This measure consists of three scales: involvement, psychological autonomy granting and strictness/supervision (see Appendix B and C). The *involvement* scale (items 1, 3, 5, 7, 9, 11, 13 and 15) measures the extent to which the adolescent perceives his/her parents as loving, responsive and involved. In this study, one item of the original scale was not included (“Ailem eğlence için beraber birşeyler yapar”) because after conducting a qualitative study, it was not thought of being appropriate within a Turkish setting. In addition, due to the prior qualitative study, four items (items 1, 5, 9 and 15) were reworded more or less extensively. Item 3 (“Annem/Babam her yaptığım işte yapabildiğim en iyisini yapmam için sürekli ısrar eder”) was later excluded from the scale for both parents, as its exclusion yielded a greater reliability coefficient:  $\alpha = .71$  for the mother version and  $\alpha = .73$  for the father version, as opposed to  $.67$  and  $.71$ , respectively. The scale, as used in this study, comprised 7 items and were rated from 1 (strongly disagree) to 4 (strongly agree). The coefficient  $\alpha$  is somewhat lower than the one Grođlu (2002) reported for the mother,  $.74$ , and similar to the one Yılmaz (2001) reported,  $.70$ .

The *psychological autonomy granting* scale (items 2, 4, 6, 8, 10, 12, 14, 16 and 17) assesses the extent to which parents use noncoercive, democratic discipline and the degree to which the adolescent is given to express individuality. The 9 items were rated again from 1 (strongly disagree) to 4 (strongly agree) and were later

reverse coded except for item 12. Again, some items (items 12 and 17) were reworded in view of the results of the qualitative study. Alpha values for the mother and father versions were .72 and .71, respectively. The rewording of those two items increased the internal consistency of the scale because Grođlu (2002) and Yılmaz (2001) obtained alpha coefficients of .70 and .66, respectively, which are somewhat lower than the maternal psychological autonomy granting reliability coefficient obtained in the present study.

The *strictness/supervision* scale measures the extent to which the adolescents perceive the supervision and monitoring from his/her parents. This scale consists of 8 items. Six items measure the degree to which their mother and father want to know where they are after school, at night and in their free time and the degree they really know where they are after school, at night and in their free time (items 18 and 19). The students were asked to indicate the degree from 1 (not at all) to 3 (very much). In the remaining two items, the participants were asked to indicate on a 7-point scale how late they can stay out at night on a typical weekday and on a typical day of the weekend (1 = before 8 p.m. to 7 = as late as I want). The latter items were not asked for mother and father separately but were rather stated as general questions after completing the maternal and paternal authoritativeness scales (see Appendix D). These “curfew” items were used when computing the strictness/supervision score for each parent. The reliability alpha of the scale for mothers was .66 and for fathers .67. The maternal strictness/supervision reliability coefficient of the present study was higher than the reliability coefficients for mothers found by Grođlu (2002), .63, and lower than the one by Yılmaz (2001), .69.

### *Marital Satisfaction Scale*

Blum and Mehrabian (1999) designed a scale for measuring the satisfaction of marital dyads which taps three main content areas: homogamy, general satisfaction and interpersonal interaction. The original shortened version of the scale consists of 14 items (with 7 positively worded and 7 negatively worded) with an alpha internal consistency coefficient of .94 and a test-retest reliability coefficient of .83. For the present study this scale was translated into Turkish and adapted into a scale that measures marital satisfaction between the parents as perceived by the adolescent. Firstly, all the items were changed from “My spouse is...” to “My parents are...”. One item was later reworded from “My parents agree on how to spend their leisure time” to “My parents agree on how to spend the holidays” (item 10). Lastly, two items were added to the original scale (item 5 and 16) to replace the original item on communication between the spouses (see Appendix F). The students rated the 16 items (8 positively worded and 8 negatively worded) concerning perceptions of their parents’ marital satisfaction on a 4-point scale ranging from 1 (strongly disagree) to 4 (strongly agree). Similar results were found for girls ( $M = 52.92$ ) and boys ( $M = 53.14$ ) who were not significantly different from each other,  $t(300) = .23, p = .82$ . The reliability alpha was .89 and a principal components factor analysis with varimax rotation indicated that a one-factor solution best fit the data. The eigenvalue for factor 1 was 6.89 whereas eigenvalues for factors 2 and 3 were lower and closer to each other at 1.43 and 1.09 respectively. Absolute magnitudes of loadings on this single factor ranged from .21 to .85

In studies that investigated marital satisfaction on children’s adjustment, it has been found that children’s perceptions of the parental marital relations are stronger predictors of their adjustment than parental reports (Davies & Cummings,

1994; Grych & Fincham, 1990, Grych, Seid & Fincham, 1992). Thus, taking students as the source of information is justified within this study.

### *Importance of Education*

The participants were asked two questions in order to find out their beliefs on the utility of academic achievement: 1) Suppose you receive a good education in high school, how likely is it that you will get the job you would like to do? -- importance of education asked in the positive-- and 2) Suppose you don't receive a good education in high school, how likely is it that you still will get the job you would like to do? -- importance of education asked in the negative-- (Steinberg, Dornbusch & Brown, 1992). Both questions were rated on a 4-point scale: 1 = I definitely can't find a job, 2 = I maybe can find a job, 3 = I most probably can find a job, 3 = I definitely can find a job.

### *Procedure*

Six schools were contacted to collect data after obtaining an authorization from the Turkish Ministry of Education (Saint Benoit, Üsküdar American Academy, Robert College, FMV Ayazağa Işık high school, Saint Michel and Şişli Terakki high school). Only the first four schools participated in this study because the last two declined participation. The data were collected in the classroom during the guidance and counseling hour from students in their first year in high school (9<sup>th</sup> grade). The questionnaires were administered by the author. The written instructions on the questionnaire package were also given verbally. The duration of administration lasted between 20 and 30 minutes.

Two versions of the package were prepared; both started with a background questionnaire, followed by two authoritativeness measures (i.e., maternal and paternal) and ended with the parental marital satisfaction scale. The difference lied in the order in which the authoritativeness measures for mothers and fathers were given: one half of the participants first completed the maternal authoritativeness measure and then the paternal authoritativeness measure, and the reverse was true for the other half of the students.



## Results

The results are presented in three main sections. The first part provides a general description of the sample. In the second, analyses pertaining to the relations between the parenting dimensions and the remaining independent variables (parental education, parental marital satisfaction, maternal employment and importance of education) are presented. The third part consists of an exploration of the links in the proposed model.

### *Preliminary Analyses*

#### *Academic Achievement*

As each school had a different grading system, the grades of all the participants were converted into Z scores to establish equivalence across the schools. In Table 1, the descriptive statistics for the original GPA's are presented for each school separately (Robert College grades are out of 100 and the grades of the rest range from 0 to 5).

Table 1

Means, Standard Deviations and Skewness Values of the GPA's of Each School

School		<i>M</i>	<i>SD</i>	Skewness
Robert College	Girls	85.07	5.44	0.17
	Boys	81.65	6.59	-0.62
	Total	83.22	6.28	-0.47
Saint Benoit	Girls	2.29	0.62	0.63
	Boys	2.01	0.60	1.11
	Total	2.18	0.62	0.76
FMV Işık	Girls	3.23	0.55	0.24
	Boys	2.48	0.84	1.21
	Total	2.92	1.03	0.58
Üsküdar American Academy	Girls	3.85	0.55	-0.52
	Boys	3.18	0.76	0.10
	Total	3.53	0.74	-0.41

There was a significant difference between the GPA's of girls and boys, with the girls having higher GPA's than the boys,  $t(300) = 5.88, p < .0001$ . Gender differences were also obtained for each school separately, Robert College,  $t(61) = 2.22$ , Saint Benoit,  $t(99) = 2.29$ , FMV Işık,  $t(35) = 2.29$ , and Üsküdar American Academy,  $t(99) = 5.05$ , all  $p$ 's  $< .0001$ .

#### *Authoritativeness Measure*

*Parenting Dimensions.* The means, ranges, standard deviations, and skewness values for each scale of the authoritativeness measure are presented in Table 2. Girls reported a higher level of *involvement* by their mothers than boys did ( $M = 22.01$  and  $M = 20.64$ , respectively),  $t(300) = 3.26, p = .001$ . However there

was no difference between girls and boys in the level of *involvement* by their fathers ( $M = 20.42$  and  $M = 20.48$ , respectively),  $t(300) = .13, p = .90$ .

Girls and boys reported similar levels of *psychological autonomy granting* by their mothers ( $M = 28.01$  and  $M = 27.64$ , respectively),  $t(300) = .69, p = .49$ , and fathers ( $M = 29.20$  and  $M = 28.84$ , respectively),  $t(300) = .71, p = .48$ .

Girls reported a higher level of *strictness/supervision* by their mothers than boys ( $M = 24.84$  and  $M = 20.65$ , respectively),  $t(300) = 8.81, p < .0001$ . Again, the level of *strictness/supervision* by their fathers was significantly higher for girls than for boys ( $M = 23.02$  and  $M = 19.20$ , respectively),  $t(300) = 7.41, p < .0001$ .

Looking at the data from a different angle, girls reported a higher level of *involvement*,  $t(163) = 4.87, p < .0001$ , and *strictness/supervision*,  $t(163) = 9.44, p < .0001$ , but a lower level of *psychological autonomy granting*,  $t(163) = -4.62, p < .0001$ , from their mothers than their fathers. Boys, too, reported a higher level of *strictness/supervision*,  $t(137) = 6.88, p < .0001$ , and a lower level of *psychological autonomy granting*,  $t(137) = -2.23, p < .05$ , from their mothers than their fathers. But, there was no difference between *involvement* by the two parents.

To summarize, (1) as compared to fathers, mothers (a) are more involved with their daughters, (b) grant less psychological autonomy to their children, and (c) control their children more strictly and (2) as compared to boys, girls (a) are more strictly controlled by both parents, and (b) receive more involvement from their mothers.

Table 2

Means, Ranges, Standard Deviations and Skewness Values for the Three Parenting Dimensions of the Authoritativeness Measure.

		<i>M</i>	Range	<i>SD</i>	Skewness
<b>Mother</b>					
Involvement	Girls	22.01	(12 – 28)	3.56	-.50
	Boys	20.64	(9 – 28)	3.69	-.53
	Total	21.38	(9 – 28)	3.67	-.50
Psychological Autonomy Granting	Girls	27.64	(13 – 36)	4.72	-.43
	Boys	28.01	(17 – 36)	4.52	-.40
	Total	27.81	(13 – 36)	4.63	-.42
Strictness/Supervision	Girls	24.84	(13 – 32)	3.87	-.65
	Boys	20.65	(8 – 30)	4.39	-.28
	Total	22.93	(8 - 32)	4.61	-.47
<b>Father</b>					
Involvement	Girls	20.42	(9 – 28)	3.90	-.50
	Boys	20.48	(8 – 28)	4.07	-.70
	Total	20.45	(8 – 28)	3.97	-.59
Psychological Autonomy Granting	Girls	29.20	(16 – 36)	4.28	-.79
	Boys	28.84	(16 – 36)	4.51	-.76
	Total	29.04	(16 – 36)	4.38	-.78
Strictness/Supervision	Girls	23.02	(10 – 32)	4.32	-.47
	Boys	19.20	(8 – 31)	4.64	.09
	Total	21.27	(8 - 32)	4.85	-.22

*Maternal and Paternal Authoritativeness Measures.* For mothers, *involvement* correlated positively with both *psychological autonomy granting*,  $r(302) = .27, p < .0001$ , and *strictness/supervision*,  $r(302) = .21, p < .0001$ , and *psychological autonomy granting* correlated negatively with *strictness/supervision*,  $r(302) = -.13, p < .04$ . When the data from girls and boys are analyzed separately two differences emerged. First, for girls *involvement* and *strictness/supervision* are not correlated,  $r(164) = .12, p = .13$ , even though they are for boys,  $r(138) = .18, p < .04$ . Second, *psychological autonomy granting* and *strictness/supervision* are not correlated for boys,  $r(138) = -.06, p = .52$ , even though they are for girls,  $r(164) = -.18, p < .04$ .

In the case of fathers, *involvement* again correlated positively with *psychological autonomy granting* and *strictness/supervision*,  $r(302) = .31, p < .0001$ , and  $r(302) = .25, p < .0001$ , respectively, but the latter two dimensions did not correlate with each other. Gender did not make a difference in this case because the results for girls and boys were similar (See Tables 5 and 6).

These patterns of results suggest that the three dimensions of authoritativeness by the mother as perceived by their children are not related to each other in the same way across girls and boys. Yet when father's authoritativeness is concerned, the relations among the three dimensions are the same for both genders. In summary: (1) the more parents are involved with their children, the more psychological autonomy they grant to their children irrespective of the gender of the parent or of the child, (2) the more involved a mother is with her son, the more strictly she controls him, but the amount of control she exercises with her daughter is not affected, (3) the more psychological autonomy a mother grants to her daughter, the less she controls her daughter, but the amount of control she exercises with her son is not affected, and (4) the more a father is involved with his children, the more

strictly he controls them; yet the degree to which he grants psychological autonomy to his children is not related to the degree to which he controls them.

The maternal and paternal scores of each scale were averaged to enable a comparison with those found in Western samples. In the present study *involvement* correlated with both *psychological autonomy granting*,  $r = .30$ ,  $p < .0001$ , and *strictness/supervision*,  $r = .23$ ,  $p < .0001$ . A negative correlation was observed between *psychological autonomy granting* and *strictness/supervision*,  $r = -.12$ ,  $p < .05$ . Gray and Steinberg (1999) reported similar correlations, .24, .35 and -.07, respectively.

*Authoritativeness Scores.* The scores of the three scales of the Authoritativeness measure were used to compute an authoritativeness score for both the mother and the father. The authoritativeness score was calculated as suggested by Steinberg, Lamborn, Dornbush and Darling (1992) as described in the Introduction. The authoritativeness score of the mothers ( $M = 1.63$ ,  $SD = .94$ ) was not significantly different from the authoritativeness score of fathers ( $M = 1.58$ ,  $SD = .95$ ),  $t(301) = 1.03$ ,  $p = .30$ .

The distribution of levels of authoritativeness is presented in Table 3. A set of Chi-square analyses revealed that the distributions of authoritativeness levels differed between girls and boys both in the case of mothers,  $\chi^2(3, N = 302) = 23.80$ ,  $p < .01$ , and fathers,  $\chi^2(3, N = 302) = 13.64$ ,  $p < .01$ . It seems that boys in general report less authoritative parenting from both parents than girls. The percentages of *non-authoritative* and somewhat *non-authoritative* parents are consistently higher for boys and conversely the percentages of *somewhat authoritative* and *authoritative* parents are consistently higher for girls. A second set of Chi-square analyses revealed

that the distribution of authoritativeness levels of mothers was different from that of fathers both in the case of girls and boys,  $\chi^2(9, N = 164) = 69.34, p < .01$ , and,  $\chi^2(9, N = 138) = 40.47, p < .01$  respectively.

Table 3

## Composition of the Authoritativeness Measure

		Girls	Boys	Total
Mother	Non authoritative	6.1%	19.6%	12.3%
	Somewhat non authoritative	27.4%	37.7%	32.1%
	Somewhat authoritative	39.6%	31.2%	35.8%
	Authoritative	26.8%	11.6%	19.9%
Father	Non authoritative	11%	18.1%	14.2%
	Somewhat non authoritative	28%	37%	32.1%
	Somewhat authoritative	36%	34.8%	35.4%
	Authoritative	25%	10.1%	18.2%

*Importance of Education*

The two questions on beliefs about the effectiveness of good education with respect to finding a job later correlated positively with each other for both girls,  $r(164) = .40, p < .0001$  and boys,  $r(138) = .31, p < .0001$ . The mean scores of positive belief of education ( $M = 3.08, SD = .61$ ) were significantly higher than negative belief of education ( $M = 1.93, SD = .75$ ),  $t(300) = 25.02, p < .001$ . This was also true when looking at girls,  $t(162) = 23.97, p < .001$  and boys,  $t(137) =$

13.11,  $p < .001$ , separately. These results replicate the findings of Grođlu (2002) who found that the scores of positive belief of education ( $M = 3.24$ ,  $SD = .61$ ) was significantly higher than negative belief of education ( $M = 2.01$ ,  $SD = .59$ ),  $t(429) = 32.63$ ,  $p < .001$ .

Exploring the questions separately, girls ( $M = 3.07$ ,  $SD = .58$ ) and boys ( $M = 3.08$ ,  $SD = .65$ ) did not significantly differ on positive belief of education,  $t(300) = .09$ ,  $p = .93$ . However boys ( $M = 2.08$ ,  $SD = .85$ ) reported higher levels of negative belief of education than girls ( $M = 1.80$ ,  $SD = .64$ ),  $t(300) = 3.2$ ,  $p < .001$ .

### *Educational Level of Parents*

In the present study fathers had a higher educational level than mothers,  $t(301) = 5.95$ ,  $p < .0001$ . A gender difference was found in that both mothers and fathers of boys had a higher educational level than the mothers and fathers of girls,  $t(300) = 2.53$ ,  $p < .05$  and  $t(300) = 1.97$ ,  $p < .05$ , respectively. Grođlu (2002) also found that fathers had more education than mothers,  $t(420) = 10.43$ ,  $p < .0001$ , but there was no difference between girls and boys on the educational level of their mothers,  $t(421) = -.65$ ,  $p = .65$ , or fathers,  $t(421) = -.30$ ,  $p = .76$ , in her study.

Significant differences on the educational levels of mothers and fathers among the participating schools were also evident,  $F(3, 298) = 7.20$ ,  $p < .0001$ , and  $F(3, 298) = 6.56$ ,  $p < .0001$ , respectively. Tukey post hoc tests showed that the educational level of both mothers and fathers from skdar American Academy ( $M$  mothers = 14.39,  $M$  fathers = 15.28) and Robert College ( $M$  mothers = 14.51,  $M$  fathers = 15.22) students were significantly higher than that of mothers and fathers from Saint Benoit ( $M$  mothers = 13.49,  $M$  fathers = 14.11) and FMV Iřık ( $M$  mothers = 12.70,  $M$  fathers = 13.95) students. There was no significant difference between

the parents' educational level of the participants from Üsküdar American Academy and Robert College and neither between Saint Benoit and FMV Işık (see Table 4). Because of the partial overlap between the two studies in terms of participating schools, the results of the present study can be compared to those of Güroğlu's study (2002). She reported that both mothers and fathers of students from Saint Benoit had the lowest educational level ( $M = 12.9$  and  $M = 13.98$ , respectively). Mothers of students of Dame de Sion ( $M = 13.36$ ) had more education but this was not significantly different from the other schools. The mothers of students of Üsküdar American Academy ( $M = 14.28$ ) had significantly more education. The educational level of fathers of both Dame de Sion ( $M = 14.96$ ) and Üsküdar American Academy ( $M = 15.26$ ) was significantly higher than fathers of students of Saint Benoit. Therefore, the results of the present study replicate those of Güroğlu.

Table 4

Mean Years of Education of Mothers and Fathers from Robert College, Saint Benoit, FMV Işık and Üsküdar American Academy

	Mothers			Fathers		
	Girls	Boys	Total	Girls	Boys	Total
Üsküdar American	14.23	14.55	14.39	15.38	15.16	15.28
Robert College	13.83	15.09	14.51	14.66	15.71	15.22
Saint Benoit	13.11	14.05	13.49	13.69	14.75	14.11
FMV Işık	13.05	12.20	12.70	14.18	13.05	13.95

*Relations between Authoritativeness and the Remaining Independent Variables*

In Table 5 all the correlations between the independent variables -- maternal and paternal authoritativeness measure, parental education, parental marital satisfaction, and importance of education -- and the dependent variable -- academic achievement are presented for the total group. In Table 6, the correlations for all the variables are presented for boys and girls separately.



Table 5: The correlations between the Independent Variables and the Dependent Variable (Academic Achievement) for all the

Participants (N =302)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Maternal Education		.52**	-.02	-.04	-.07	.01	.11	-.06	-.04	-.01	.11*	-.07	-.02	.08
2. Paternal Education			.07	.01	-.05	.11	.12*	.01	.05	.18**	.08	.01	.13*	.11
3. Marital Satisfaction				.15*	.03	.32**	.25**	-.01	.26**	.48**	.18**	.08	.27**	.00
4.Importance of Education (+)					.34**	.06	.09	-.04	.12*	.03	.10	-.01	.06	.02
5.Importance of Education (-)						-.04	.06	-.30**	-.10	-.01	-.01	-.21**	-.13*	-.20**
6. Maternal Involvement							.27**	.21**	.63**	.48**	.14*	.21**	.33**	.13*
7. Maternal Psy. Aut. Gran.								-.13*	.48**	.18**	.53**	-.08	.28**	.20**
8. Maternal Supervision									.46**	.10	-.10	.86**	.37**	.27**
9 Maternal Authoritativeness										.34**	.23**	.47**	.49**	.27**
10. Paternal Involvement											.31**	.25**	.66**	.04
11. Paternal Psy. Aut. Gran.												-.10	.50**	.16**
12. Paternal Supervision													.50**	.23**
13 Paternal Authoritativeness														.24**
14. Academic Achievement														

\*  $p < .05$  \*\*  $p < .01$

Table 6: The correlations between the Independent Variables and the Dependent Variable (Academic Achievement) for Girls (N=164) and Boys (N=138)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Maternal Education	--	.58**	-.00	-.09	-.18*	.10	.10	-.03	.02	.01	.08	-.02	-.00	.18*
2. Paternal Education	.39**	--	.03	-.03	-.16*	.08	.15	-.02	.06	.10	.16*	-.06	.08	.19*
3. Marital Satisfaction	-.04	.14	--	.10	.02	.25**	.13	.03	.23**	.48**	.19*	.15	.30**	-.04
4.Importance of Education (+)	.02	.07	.20*	--	.40**	.06	.08	-.00	.08	.03	.16*	-.01	.09	-.01
5.Importance of Education (-)	-.03	.02	.03	.31**	--	-.03	.13	-.18*	-.13	.00	.06	-.09	-.05	-.17*
6. Maternal Involvement	-.04	.21*	.43**	.08	.02	--	.26**	.12	.61**	.38**	.11	.10	.20*	.05
7. Maternal Psy. Aut. Gran.	.10	.07	.41**	.11	-.02	.30**	--	-.18*	.53**	.19*	.54**	-.13	.32**	.21**
8. Maternal Supervision	.04	.18*	-.05	-.08	-.32**	.18*	-.05	--	.36**	.12	-.08	.82**	.34**	.11
9 Maternal Authoritativeness	-.04	.13	.34**	.18*	.01	.61**	.50**	.41**	--	.35**	.30**	.35**	.50**	.16*
10. Paternal Involvement	-.03	.29**	.49**	.03	-.03	.62**	.17*	.11	.36**	--	.38**	.33**	.69**	-.02
11. Paternal Psy. Aut. Gran.	.17*	-.01	.16	.04	-.06	.17*	.53**	-.18*	.16	.24**	--	-.09	.54**	.15
12. Paternal Supervision	.00	.22*	.03	.00	-.22*	.21*	-.00	.85**	.47**	.22**	-.16	--	.51**	.05
13 Paternal Authoritativeness	.04	.29**	.25**	.04	-.14	.44**	.26**	.32**	.42**	.66**	.47**	.43**	--	.14
14. Academic Achievement	.09	.11	.06	.06	-.15	.11	.25**	.19*	.24**	.11	.16	.18*	.24**	--

\*  $p \leq .05$  \*\*  $p < .01$  Note: The coefficients in the upper right part and bold italics of matrix indicate the correlations of the

girls. The coefficients in the lower left part the matrix indicate the correlations from the boys.

*Parental Marital Satisfaction and Maternal and Paternal Authoritativeness Scores*

The marital satisfaction scores correlated significantly with *psychological autonomy granting* of both mother,  $r(302) = .25, p < .0001$ , and father,  $r(302) = .18, p = .002$ . Also positive correlations were observed between marital satisfaction scores and *involvement* of both mother,  $r(302) = .32, p < .0001$ , and father,  $r(302) = .48, p < .0001$ . Yet, *strictness/supervision* scores of neither parent correlated with marital satisfaction (see Table 5).

Considering the genders separately, the results pertaining *involvement* did not change. A significant correlation was found between marital satisfaction and the *involvement* dimension of both mother and father for girls,  $r(164) = .25, p < .001$ , and  $r(164) = .48, p < .0001$ , respectively. Also for boys, a positive correlation was found between marital satisfaction and *involvement* dimension of both mother and father,  $r(138) = .43, p < .0001$ , and  $r(138) = .49, p < .0001$ , respectively. However, the results concerning *psychological autonomy granting* showed a different pattern. *Psychological autonomy granting* of mothers positively correlated with marital satisfaction for boys,  $r(138) = .41, p < .0001$ , but not for girls,  $r(164) = .13, p = .11$ . Whereas *psychological autonomy granting* of fathers, positively correlated with marital satisfaction for girls,  $r(164) = .19, p < .02$ , but not for boys,  $r(138) = .16, p = .06$ . As it was the case for the entire sample, marital satisfaction was not related with maternal nor paternal *strictness/supervision* for girls and boys (see Table 6).

These results indicate that marital satisfaction between the parents is not related to the degree they exercise control over their children, but affect their involvement with them in that the higher the level of marital satisfaction, the more they exhibit involvement. In the case of psychological autonomy granting, however, the level of marital satisfaction affects the parents' psychological autonomy granting

to the opposite sex child but not to the same sex child. In both cases, the higher the level of marital satisfaction, the more the parent grants psychological autonomy.

#### *Parental Educational Level and Maternal and Paternal Authoritativeness Scores*

The educational level of mothers correlated only with paternal *psychological autonomy granting*,  $r(302) = .12, p < .05$ , for the entire sample. Yet, when examined separately, this held only for boys,  $r(138) = .17, p < .05$ . Therefore, it can be concluded that maternal education is not related to the authoritativeness of either parent for their daughters and only related with the father's *psychological autonomy granting* to their sons.

The educational level of fathers correlated with fathers' *involvement*,  $r(302) = .18, p < .01$ , and mothers' *psychological autonomy granting*,  $r(302) = .12, p < .05$ , for the entire sample. But these results are misleading because when considered separately for girls and boys, father's educational level correlated only with his *psychological autonomy granting*,  $r(164) = .16, p < .04$ , for his daughter. In the case of boys however, it correlated with both *involvement* of mother and father,  $r(138) = .21, p < .05$ ,  $r(138) = .30, p < .0001$ , respectively, and *strictness/supervision* of mother and father,  $r(138) = .19, p < .04$ ,  $r(138) = .22, p < .02$ , respectively (see Table 5 and 6).

It can be concluded that the higher the educational level of the mother, the more fathers grant psychological autonomy to their son and the higher the educational level of the father, the more he grants psychological autonomy to their daughter. Father's educational level is, however, also related to involvement and strictness/supervision of both father and mother to their sons. That is, the higher the

father's educational level, the more involvement and control both parents exhibit to their sons.

### *Maternal Employment and Maternal and Paternal Authoritativeness Scores*

In this sample, 165 mothers of the participants did not work and thus stayed home. The following analysis explored the differences between employed and non-employed mothers and the means and standard deviations are presented in Table 7. When children of employed mothers were compared with those of non-employed mothers with respect to parental *involvement*, the former reported a higher level of *involvement* of both mothers,  $t(300) = 3.04, p < .01$ , and fathers,  $t(300) = 2.67, p < .01$ . However, these results must be qualified in view of the differences between girls and boys. That is, maternal employment is associated with higher levels of maternal *involvement* in the case of girls only,  $t(162) = 2.77, p < .01$ , and with paternal *involvement* in boys only,  $t(136) = 2.77, p < .01$ .

With respect to *psychological autonomy granting* of mothers, again children of employed mothers reported higher levels than children of non-employed mothers,  $t(300) = 2.48, p < .05$ . This was true for girls only when the data were analyzed for each gender separately,  $t(162) = 2.76, p < .01$ . No differences were observed between children with respect to *psychological autonomy granting* of fathers.

For the entire sample, no difference was found between the children of employed and non-employed mothers, with respect to *strictness/supervision* of mothers,  $t(300) = -.65, p = .52$ , and fathers,  $t(300) = .09, p = .93$ . However, when the genders are analyzed separately, only girls of employed mothers reported a lower level of maternal *strictness/supervision* when compared with those of non-employed mothers,  $t(162) = -2.19, p < .05$ .

In conclusion, maternal employment seems to mostly affect mother's authoritativeness towards their daughters but not their sons. Interestingly for boys, maternal employment only affects the father's involvement, in that fathers become more involved with their sons if the mother is employed than when she stays at home.



Table 7

Means, Standard Deviations and t-values for the three Parenting Dimensions in terms of Maternal Employment

		Maternal employment		
		Employed	Non-Employed	
		<i>M (SD)</i>	<i>M (SD)</i>	<i>t</i>
Mother				
Involvement	Girls	22.85 (3.49)	21.33 (3.48)	2.77**
	Boys	21.20 (3.44)	20.16 (3.85)	1.66
	Total	22.08 (3.55)	20.81 (3.68)	3.04**
Psychological Autonomy Granting	Girls	28.75 (4.75)	26.75 (4.68)	2.76**
	Boys	28.27 (4.24)	27.78 (4.77)	.62
	Total	28.52 (4.41)	27.21 (4.74)	2.48*
Strictness- Supervision	Girls	24.11 (3.69)	25.43 (3.93)	-2.19*
	Boys	21.17 (4.02)	20.20 (4.66)	1.30
	Total	22.74 (4.10)	23.08 (5.00)	-.65
Father				
Involvement	Girls	20.78 (4.04)	20.13 (3.79)	1.06
	Boys	21.48 (3.57)	19.61 (4.28)	2.77**
	Total	21.11 (3.83)	19.90 (4.01)	2.67**
Psychological Autonomy Granting	Girls	29.56 (4.57)	28.91 (4.04)	.96
	Boys	29.33 (4.00)	28.42 (4.90)	1.18
	Total	29.45 (4.30)	28.69 (4.44)	1.51
Strictness- Supervision	Girls	22.51 (4.23)	23.43 (4.36)	-1.36
	Boys	19.92 (4.55)	18.57 (4.66)	1.72
	Total	21.30 (4.55)	21.25 (5.10)	.09

\*  $p < .05$  \*\*  $p < .01$

### *Testing the Model*

As a first step in testing the proposed model, two separate regression analyses—one for each gender—were performed in which GPA was regressed on all of the independent variables of the study, that is maternal and paternal educational level, importance of education (asked in positive and negative), maternal employment, parental marital satisfaction and maternal and paternal authoritativeness scores. In both analyses, only maternal *psychological autonomy granting* predicted GPA. It is worth mentioning that the overall regression equation was statistically significant in the case of girls,  $F(12,150) = 1.92, p < .05$ , but failed to be so for boys,  $F(12, 125) = 1.54, p = .12$ . Having shown that both analyses were fully consistent with each other, the data from boys and girls were collapsed and the analysis was repeated for the entire data set. This time, importance of education (asked in the negative) also emerged as a significant predictor of GPA along with maternal *psychological autonomy granting*. The overall model was statistically significant,  $F(12, 288) = 4.82, p < .0001$ , and explained 17% of the variance (see Table 8).

It was then questioned if importance of education (asked in the negative) for the adolescent had a mediating role in the prediction of GPA from maternal *psychological autonomy granting*. For a variable to be considered as a mediator the following conditions must be met: (1) both predictor and mediator must be significantly related with the dependent variable and (2) the predictor must be significantly related with the mediator (Holmbeck, 1997). As shown in Table 5, both maternal *psychological autonomy granting* and importance of education (asked in the negative) are significantly associated with GPA but they are not with each other,  $r = .06, p = .32$ . As the last condition is not met, it can be concluded that importance of education (asked in the negative) is not a mediator between maternal *psychological*

*autonomy granting* and GPA. Therefore, the results indicate that adolescents' academic achievement is predicted by mothers' psychological autonomy granting and their belief that not receiving a good education makes it less likely that they would get a job they prefer later on. It is worth mentioning that the strength of the relationship between maternal psychological autonomy granting and academic achievement is greater than the relationship between the importance of education (asked in the negative) and academic achievement. This is because the latter reaches only a statistically significant relation when data from both genders are collapsed leading to a larger sample size. The relation between maternal psychological autonomy granting and academic achievement, however, is statistically significant even when the sample size is reduced to about one half of its size, as in the case of analyses carried out with data from one gender only.

In the model it was proposed that the parenting dimensions might have a mediating role on the relation between marital satisfaction, parental education and maternal employment, and academic achievement. Even when considering only maternal *psychological autonomy granting*, again the mediating role of this variable has to be rejected because the above mentioned conditions are not met. That is, neither marital satisfaction nor parental education and maternal employment are related with GPA (see Table 5 and 6). The same is true when considering boys and girls separately. Therefore, the results of the analyses carried out do not provide evidence for the proposed mediating role of parental authoritativeness between these variables and academic achievement.

Table 8: Regression of the Independent Variables on Academic Achievement.

	Girls			Boys			Total		
	<i>r</i>	<i>r</i> <sup>2</sup>	<i>t</i>	<i>r</i>	<i>r</i> <sup>2</sup>	<i>t</i>	<i>r</i>	<i>r</i> <sup>2</sup>	<i>t</i>
	.36*	.13*		.36	.13		.41**	.17**	
Maternal Education			.07	.62		.06	.54	.02	.29
Paternal Education			.10	1.02		.04	.44	.07	1.07
Importance of Education (+)			.04	.53		.09	1.01	.06	1.10
Importance of Education (-)			-.16	-1.85		-.11	-1.21	-.15	-2.46**
Maternal Employment			.01	.16		-.06	-.56	.00	-.01
Marital Satisfaction			-.05	-.52		-.09	-.84	-.05	-.86
Paternal Involvement			-.08	-.71		.08	.60	-.07	-.89
Paternal Psychological Aut. Gr.			.06	.57		.05	.49	.09	1.36
Paternal Strictness/Supervision			-.01	-.08		.04	.22	.04	.31
Maternal Involvement			-.02	-.18		-.01	-.07	.05	.72
Maternal Psychological Aut. Gr.			.22	2.26*		.23	2.10*	.19	2.76**
Maternal Strictness/Supervision			.16	1.03		.13	.78	.23	1.91

\*  $p < .05$  \*\*  $p \leq .0001$

As indicated in the model, marital satisfaction and importance of education (asked in positive and negative) could moderate between parental dimensions and GPA. First, these variables were centered as recommended by Aiken and West (1991). Then, a series of analyses were performed in which GPA's of boys and girls were regressed on each parental dimension, the potential moderator variable and their interaction. Out of 36 analyses only one revealed a significant interaction effect: paternal *psychological autonomy granting* interacted with importance of education (in the positive) for girls (see Table 9).

Table 9:

Hierarchical Regressions for the Moderating Effect of Importance of Education (asked in the positive) on the Relation between Paternal Psychological Autonomy Granting and Academic Achievement for girls.

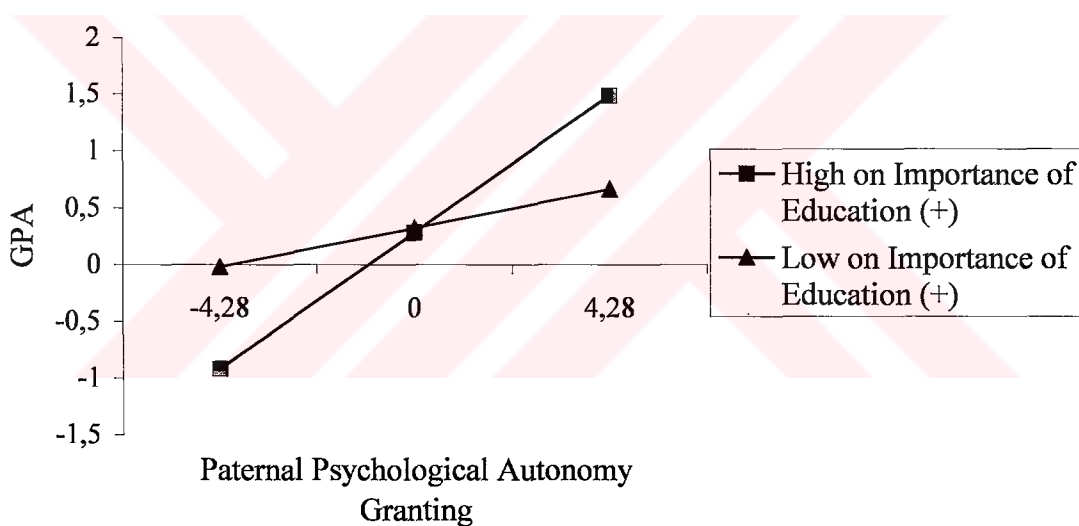
	<i>R</i>	$\Delta r^2$	<i>B</i>	<i>t</i>
1.	.15	.02		
Importance of Education (+)			-.04	-.53
Paternal Psychological Aut. Gr.			-.18	2.26
2.	.23*	.03*		
Interaction			.17	2.20*

\* $p < .05$

Because the interaction effect was statistically significant the paternal *psychological autonomy granting* and importance of education (in the positive) scores of girls further analysis were done. To understand the nature of the interaction, the values of one predictor were calculated according to a high value, the

mean and a low value of the other predictor. The simple regression lines are shown in Figure 2. Paternal *psychological autonomy granting* positively predicted GPA for girls who had high scores on the positive belief of importance of education ( $b = .34$ ,  $p = .004$ ). The relation was non-significant for girls with low scores on the positive belief of importance of education. This result has to be cautiously thought about because this interaction effect was the only significant one among 36 potential interaction effects.

Figure 2 : Interaction between Parental Psychological Autonomy Granting and Importance of Education predicting Girls' GPA



## Discussion

The main aim of the present study was to explore the predictors of adolescents' academic achievement in the Turkish culture. Authoritativeness of the mother and the father, maternal employment, parental marital satisfaction, parental education level and importance of education (asked both in the positive and in the negative) were placed as predictive variables within the proposed model (see Figure 1). It was proposed that: (1) all these variables could have a direct effect on adolescents' academic achievement, (2) authoritativeness of mother and father could have a mediating role between parental educational level, maternal employment, parental marital satisfaction and academic achievement, and (3) importance of education (asked in the positive and in the negative) and parental marital satisfaction could have a moderating role between authoritativeness of mother and/or father and adolescents' academic achievement.

The results indicated that for all adolescents, *psychological autonomy granting* of the mother and importance of education (asked in the negative) predicted their academic achievement. It should be noted that maternal *psychological autonomy granting* emerged as a stronger predictor of academic achievement than importance of education (asked in the negative). No mediating effects of *psychological autonomy granting* of the mother were found between any of the designated independent variables--marital satisfaction, parental education, and maternal employment--and adolescents' academic achievement. Nor was there any evidence for the proposed moderation effects, with a single exception: in the case of girls only, importance of education (asked in the positive) appeared to moderate the relationship between *psychological autonomy granting* of the father and their academic achievement. If she thinks that getting a good education would enable her

to get a good job she would like have later on, then, the higher the level of psychological autonomy granting from her father, the higher her GPA. However, if she thinks that getting a good education is not predictive of later job opportunities, then psychological autonomy granting from her father does not predict her GPA.

In European American samples, it has been shown that each parenting dimension has a positive and unique association with adolescents' academic achievement (e.g., Gray & Steinberg, 1999; Steinberg, Elmen & Mounts, 1989). Gray and Steinberg (1999) in particular showed that although each parenting dimension influences academic achievement separately, they also indicated that when adolescents report high levels of *involvement* and *psychological autonomy granting* and modest levels of *strictness/supervision*, they tend to do better academically. In the present study, however, only maternal *psychological autonomy granting* predicted academic achievement. It should be noted that the results obtained with regard to the structural aspects of the Authoritativeness measure are very similar to those found with European American samples. Gray and Steinberg (1999), for example, reported reliability alphas of .72, .82 and .76 for *involvement*, *psychological autonomy granting* and *strictness/supervision*, respectively. In the present study, similar but somewhat lower alphas were obtained for mothers and for fathers (see p. 27-28). Also the correlations between the dimensions in this study were similar to those reported by Gray and Steinberg (1999, see p. 37). Thus, even though there is evidence that the translated version of the measure used in the present study had similar psychometric properties, only maternal *psychological autonomy granting* scale predicted academic achievement for Turkish adolescents and the remaining two scales did not.

There are two other sets of data available from studies carried out in Turkey. In the first study, Güroğlu (2002) showed that both *psychological autonomy granting* and *strictness/supervision* of the mother were positively correlated with academic achievement and that *involvement* of the mother was unrelated to academic achievement. When analyzing boys and girls separately, she showed that only in the case of girls, maternal *psychological autonomy granting* was positively related with academic achievement. *Involvement* and *strictness/supervision* of the mother was not related with academic achievement for either girls or boys. Thus, when compared to the present study, two differences appear: the present study (1) found *psychological autonomy granting* of the mother and importance of education (asked in the negative) to be predictors of academic achievement, and (2) showed no gender differences in prediction of adolescents' academic achievement. Although, the results of the present study are inconsistent with those of Güroğlu's study, it should be mentioned that there were some methodological differences between the two studies. First, although both studies used similar samples, as there was a great overlap of the participating schools, the present study used a more homogeneous sample as only the data of children from intact families were analyzed. Second, the present study also took into account the parental dimensions of fathers, maternal employment, and parental marital satisfaction into the equation. Thirdly, Güroğlu reports first order correlations between the variables rather than results of a regression analysis in which academic achievement is regressed on all the independent variables, as was done in the present study. Fourthly, in the present study, an improved version of the authoritativeness measure was employed. Thus, the different results may be due to any one or a combination of several of differences between the two studies.

The second data set was collected by Yılmaz (2001). Consistent with the present results, she reports that only parental *psychological autonomy granting* predicts academic achievement for high school students and none of the remaining two dimensions do. Both studies employed children from intact families only, but it is interesting to note that children in Yılmaz's sample had a different background. Her sample was drawn from various schools (in Ankara) whereas the sample of the present study was drawn from private schools (in Istanbul). This suggests that the adolescents in Yılmaz's study came from a lower SES background when compared to the sample of the present study. There were two further differences: Yılmaz (1) did not measure the parental dimensions separately for mothers and fathers and (2) nor did she analyze the data separately for boys and girls. Despite all these differences, the same finding emerged in both studies: only *psychological autonomy granting* predicts academic achievement in Turkish adolescents. This certainly speaks for the generality of this finding. The present study seems to suggest a qualification, however: it is the level of *psychological autonomy granting* by the mother and not the father that is critical in predicting academic achievement of adolescents.

Importance of education (asked in the negative) emerged as a significant predictor of GPA along with maternal *psychological autonomy granting*. The present study replicated the findings of Western studies in that the belief of importance of education when asked in the negative, is a better predictor of school performance than when asked in the positive (Steinberg et al., 1992). That is, the more adolescents believe that not getting a good education hurts their chance of getting a good job in later life, the better they do in school. Güroğlu (2002), on the other hand, found a gender difference in this respect. Although for girls the results of

both studies were the same, neither asked in the positive nor in the negative, belief of importance of education predicted academic achievement for boys in her study. At this point, it is worth reiterating that in the present study, the strength of the relationship between the two variables was not great. The effect reached statistical significance when the data from both genders were combined for analysis. Splitting the data into boys and girls, thus reducing the sample size by almost one half, did not yield a significant result. Therefore, it may be concluded that in this particular section of the culture (tapped by both of the studies) there is no robust relationship between importance of education for the adolescent and academic achievement.

In the present study, the educational level of neither mother nor father predicted academic achievement in a direct or indirect way. Thus, the present study is in line with Mattanah's study (2001), which could not confirm a direct or mediating link between educational level of the parents and academic achievement of fourth-graders.

Some studies carried out with European American samples found that maternal employment has an impact on academic achievement only in the case of boys from middle to upper-middle class: sons of employed mothers have lower grades than sons of non-employed mothers. For girls, maternal employment does not have an effect on their academic achievement (Banducci, 1967; as cited in Crouter et al. 1990, Bogenschneider & Steinberg, 1994). The present study failed to find any effect of maternal employment on academic achievement of girls and boys from Turkish higher middle-class families, which is in concordance with the study of Crouter et al. (1990) and Paulson (1996).

Marital satisfaction does not predict academic achievement in the present study, which is in contrast with Feldman et al. (1990) who report that fathers'--and

not mothers'--marital satisfaction is significantly associated with academic achievement for boys. However, the present results replicate those of Yılmaz's study in that marital satisfaction again failed to predict academic achievement in Turkish high school students. Given the differences between the two studies, this finding might be generalized across (1) children from different socio-economic classes (middle vs. upper-middle and upper class), (2) different measures of marital satisfaction and, (3) different sources of information assessing the quality of marital satisfaction (mothers themselves vs. students).

Returning to the authoritativeness measure, the present study indicates that depending on the child's as well as the parent's gender, somewhat different patterns of relations exist among the three dimensions of authoritativeness. Firstly, for fathers (1) gender of the child does not make a difference, and (2) the degree to which they control their children is independent of the amount of psychological autonomy they grant to their children. For mothers, the gender of the child does make a difference: (1) the degree to which they are involved with their daughters is independent of how strictly they control their daughters and, (2) the amount of psychological autonomy they grant to their sons is independent of how strictly they control their sons.

Secondly, there were differences in the degrees to which boys and girls perceived their mothers and fathers as authoritative in terms of these three dimensions. As compared to fathers, mothers (1) are more involved with their daughters, (2) grant less psychological autonomy to their children, and (3) control their children more strictly. As compared to boys, girls (1) are more strictly controlled by both parents, and (2) receive more involvement from their mothers. These results partially replicate the results of Steinberg et al. (1989), in that they

report a tendency for girls to receive more involvement than boys from both parents. However, contrary to the present study's results, they show that, as compared to boys, girls are less controlled. This difference between the results as pertaining to differential control of sons and daughters seems to point at a cultural difference: in the Turkish culture daughters are more strictly controlled than sons.

Further differences between the present results and those from studies employing European American samples are evident. Grolnick and Ryan (1989), for example, report that, as compared with fathers, mothers are more involved with their children and that fathers and mothers do not differ in psychological autonomy granting. In the present study, in contrast, mothers were found to grant less psychological autonomy to their children than fathers. Moreover, mothers were found to be more involved with their daughters than their sons and more so than fathers. These observed differences between the two studies are again likely to point to cultural differences and thus worthy of further investigation in future studies.

A comparison of present results with those of another study with Chinese children is in order. Chen et al. (2000) found that, as compared to fathers, mothers exhibit more control, as found in the present study. Yet, in contrast, they found that, as compared to boys, girls are less strictly controlled by their fathers.

In the present study marital satisfaction was not related to the degree to which parents exercise control over their children, but related to the involvement level with their children; that is, the higher the level of marital satisfaction, the more both mothers and fathers are involved with their children. This relation is consistent with the spillover hypothesis which suggests that there is a direct transfer of mood, affect or behavior from one setting to another (Repetti, 1987; as cited in Erel & Burman, 1995). In the case of psychological autonomy granting, however, the level of marital

satisfaction affected the parents' psychological autonomy granting to the opposite sex child but not to the same sex child. That is, the higher the level of marital satisfaction between the parents, the more mothers grant psychological autonomy to their sons and the more fathers grant psychological autonomy to their daughters. These results are consistent with those of studies carried out with European American samples (albeit employing younger children) in which the interactions between parents and their children were observed. They support the idea that the effect of marital satisfaction between parents may have a differential effect on parental behavior with respect of the gender of the parent as well as the child (Cox, Owen, Lewis & Henderson, 1989; Kerig, Cowan, & Cowan, 1993).

Results of the present study show that the educational level of the mothers is, among the parental dimensions, only related to father's *psychological autonomy granting* for boys. Thus, the more educated the mother, the more her husband grants psychological autonomy to their son. The educational level of fathers, however, is related to his *psychological autonomy granting* for girls, and to his and his wife's *involvement* and *strictness/supervision* for boys. Thus, the more educated the father is, (1) the more he grants psychological autonomy his daughter and (2) the more he and his wife show more involvement and more control to their sons. These results certainly call for a more detailed investigation of the effects of paternal education on child outcome, especially with respect to differential effects in terms of gender of the child.

In this study, maternal employment affected mostly the parenting dimensions of the mother for girls but not for boys. That is, daughters of employed mothers reported higher levels of maternal *involvement* and *psychological autonomy granting* and lower levels of maternal *strictness/supervision* than daughters of non-employed

mothers. For boys, however, maternal employment only affected the dimension of father's *involvement*: sons of employed mothers reported higher levels of father's *involvement* when compared to sons of non-employed mothers. These results can be compared with those from studies with European American samples. Muller (1995), for example, showed that children of part-time employed mothers report higher level of involvement than children with full-time or non-employed mothers and those children had higher grades than the other two groups. But, she also reports that the SES of the part-time employed mothers was higher than the other two groups of mothers. Because of the fact that maternal employment status was confounded by SES of the families, it may not be appropriate to compare her results with those of the present study. Crouter, et al. (1990), on the other hand, reports that parental monitoring does not differ between students whose mothers are employed and those whose mothers stay at home. This finding stands in contrast to the results of the present study. The results of the present study suggest that employed mothers try to compensate for the lost time they are not at home by being more involved with their daughters, granting individuality and be less strict with them, although their behavior towards their sons are unaffected. For sons of employed mothers, however, it seems to be the father who compensates by being more involved with them.

It should be mentioned that the recurrent finding that girls do better in school (e.g. , Steinberg et al., 1989; Yilmaz, 2001; Güroglu, 2002) has been again replicated in this study.

In this study the effects of parenting dimensions on adolescents' academic achievement was investigated for the most westernized section of the Turkish society. This was a deliberate choice because any cultural differences observed in such a sample would imply that they would be, if anything, more emphasized in

other sections of the society. However, this choice also brings along the danger of obtaining results that lack generality. That the present results are consistent with those of Yılmaz (2001) who employed a lower SES sample, speaks for the fact that these results may generalize over the middle SES as well.

Another caveat of the study, again arising from the choice of the sample, is that the schools from which the participants were selected are among the most competitive schools in the country. This means that the sample comprises adolescents from only families that give the highest level of importance to the education of their children. This, in a way, makes the sample very homogeneous and certain relations that do exist in reality might have gone unnoticed because of a restricted range of scores on some variables. Because of the above mentioned constraints of the study with respect to the sample, this study should be replicated with adolescents from less competitive schools. Also, children from lower and higher grades should be included to ascertain the generality of the findings across the entire range of adolescence.

As a final point, the relations between psychological autonomy granting dimension of the Authoritativeness scale and the remaining independent variables of this study clearly deserve further investigations because of the link between psychological autonomy granting and academic achievement found in this study. This would help identifying any possible indirect effects of any such variable(s) on academic achievement of adolescents.

## References

- Aiken, L.S. & West, S.G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.
- Alp, I. E. & Sirman, N. (2003). *The Authoritativeness measure: A qualitative study*. Manuscript in preparation. Boğaziçi University, Istanbul, Turkey.
- Belsky, J. (1990). Parental and non-parental child care and children's socio emotional development: A decade in review. *Journal of Marriage and the Family*, 52, 885-903.
- Bogenschneider, K. & Steinberg, L. (1994). Maternal employment and adolescents' academic achievement: a developmental analysis. *Sociology of Education*, 67, 60-77.
- Bumpus, F. M., Crouter, A.C., & McHale, M. (2001). Parental autonomy granting during adolescence: Exploring gender differences in context. *Developmental Psychology*, 37, 163-173.
- Burman, B., John, R.S., & Margolin, G. (1988). Effects of marital and parent-child relations on children's adjustment. *Journal of Family Psychology*, 1, 91- 108.
- Carlson, M.J., & Corcoran, M.E. (2001). Family structure and children's behavioral and cognitive outcomes. *Journal of Marriage and the Family*, 63, 779-792.
- Chao, R.K., (1994). Beyond parental control and authoritarian parenting style: Understanding Chinese parenting through the cultural notion of training. *Child Development*, 65, 1111-1119.
- Chao, R.K., (2001). Extending research on the consequences of parenting style for Chinese Americans and European Americans. *Child Development*, 72, 1832-1843.

- Chen, X., Dong, Q., & Zhou, H., (1997). Authoritative and authoritarian parenting practices and social and school performance in Chinese children. *International Journal of Behavioral development, 21*, 855-873.
- Chen, X., Liu, M., & Li, D. (2000). Parental warmth, control and indulgence and their relations to adjustment in Chinese children: A longitudinal study. *Journal of Family Psychology, 14*, 401-419.
- Cox, M.J.; Owen, M.T., Lewis, J.M. & Henderson, V.K. (1989). Marriage, adult adjustment, and early parenting. *Child Development, 60*, 1015-1024.
- Crouter, A.C., MacDermid, S.M., McHale, S.M., & Perry-Jenkins, M. (1990). Parental monitoring and perceptions of children's school performance and conduct in dual- and single-earner families. *Developmental Psychology, 26*, 649-657.
- Davies, P.T. & Cummings, E.M. (1994). Marital conflict and child adjustment: an emotional security hypothesis. *Psychological Bulletin, 116*, 387-411.
- Darling, N. & Steinberg, L. (1993). Parenting style as context: An integrative model. *Psychological Bulletin, 113*, 487-496.
- Dornbusch, S.M., Ritter, P.L., Leiderman, P.H. , Roberts, D.F. & Fraleigh, M.J. (1987). The relation of parenting style to adolescent school performance. *Child Development, 58*, 1244-1257.
- Erel, O., & Burman, B. (1995). Interrelatedness of marital relations and parent-child relations: a meta-analytic review. *Psychological Bulletin, 118*, 108-132.
- Feldman, S.S., Wentzel, K.R., Weinberger, D.A., & Munson, J.A. (1990). Marital satisfaction of parents of preadolescent boys and its relationship to family and child functioning. *Journal of Family Psychology, 4*, 213-234.

- Gorman-Smith, D., Tolan, P.H., Henry D.B. & Florsheim, P. (2000). Patterns of family functioning and adolescent outcomes among urban African American and Mexican American families. *Journal of Family Psychology, 14*, 436-457.
- Gray, M. R., & Steinberg, L. (1999). Unpacking authoritative parenting: Reassessing a multidimensional construct. *Journal of Marriage and the Family, 61*, 574-587.
- Grolnick, W. S., Benjet, C., Kurowski, C. O., & Apostoleris, N. H. (1997). Predictors of parent involvement in children's schooling. *Journal of Educational Psychology, 89*, 538-548.
- Grolnick, W.S., & Ryan, R.M. (1989). Parent styles associated with children's self regulation and competence in school. *Journal of Educational Psychology, 81*, 143-154.
- Grych, J.H. & Fincham, F.D. (1990). Marital conflict and children's adjustment: a cognitive-contextual framework. *Psychological Bulletin, 108*, 267-290.
- Grych, J.H., Seid, M. & Fincham, F.D. (1992). Assessing marital conflict from the child's perspective: the children's perception of interparental conflict scale. *Child Development, 63*, 558-572.
- Güroğlu, B. (2002). *Prediction of academic achievement in Turkish adolescents from attachment style and mother's parenting style variables*. Unpublished thesis. Boğaziçi University, Istanbul, Turkey.
- Holmbeck, G. N. (1997). Toward terminological, conceptual, and statistical clarity in the study of mediators and moderators: Examples from the child-clinical and pediatric psychology literatures. *Journal of Consulting and Clinical Psychology, 65*, 599-610.

- Howes, P. & Markman, H.J. (1989). Marital quality and child functioning: a longitudinal investigation. *Child Development, 60*, 1044-1051.
- Katz, L.F., & Gottman, J.M. (1993). Patterns of marital conflict predict children's internalizing and externalizing behaviors. *Developmental Psychology, 29*, 940-950.
- Kerig, P.K., Cowan, P.A., & Cowan, C. P. (1993). Marital quality and gender differences in Parent-Child Interaction. *Developmental Psychology, 29*, 931-939.
- Kim, K., & Rohner, R.P. (2002). Parental warmth, control and involvement in schooling: Predicting Academic achievement among Korean American adolescents. *Journal of Cross-Cultural Psychology, 33*, 127-140.
- Jacobson, K.C. & Crockett, L.J. (2000). Parental Monitoring and adolescent adjustment: an ecological perspective. *Journal of Research on Adolescence, 10*, 65-98
- Juang, L.P., & Silbereisen, R.K., (2002). The relationship between adolescent academic capability beliefs, parenting and school grades. *Journal of Adolescence, 25*, 3-18.
- Lamborn, S.D., Mounts, N.S., Steinberg L., & Dornbush (1991). Patterns of competence and adjustment among adolescents from authoritative, authoritarian, indulgent, and neglectful families. *Child Development, 62*, 1049-1065.
- Maccoby, E. & Martin, J. (1983). Socialization in the context of family: parent-child interaction. In P.H. Mussen (Series Ed.) & E. Hetherington (Vol. Ed.), *Handbook of child psychology: Vol. 4. Socialization, personality and social development* (pp.1-101). New York: Wiley.

- Mattanah, J.F. (2001). Parental psychological autonomy and children's academic competence and behavioral adjustment in late childhood: More than just limiting-setting and warmth. *Merrill-Palmer Quarterly*, 47, 355-376.
- Muller, C. (1995). Maternal employment, parent involvement and mathematics achievement among adolescents. *Journal of Marriage and the Family*, 57, 85-101
- Paulson, S. E. (1996). Maternal employment and adolescent achievement: revisited. *Family Relations*, 45, 201-209.
- Steinberg, L., Dornbusch, S.M. & Brown, B.B. (1992). Ethnic differences in adolescent achievement: An ecological perspective. *American Psychologist*, 47, 723-729.
- Steinberg, L., Elmen, J.D., & Mounts, N.S. (1989). Authoritative parenting, psychosocial maturity and academic success among adolescents, *Child Development*, 60, 1424-1436.
- Steinberg, L., Lamborn, S.D., Dornbusch, S.M., & Darling, N. (1992). Impact of parenting practices on adolescent achievement: authoritative parenting, school involvement and encouragement to succeed. *Child Development*, 63, 1266-1281.
- Stewart, S.M., & Bond, M.H. (2002). A critical look at parenting research from the mainstream: Problems uncovered while adapting Western research to non Western cultures. *British Journal of Developmental Psychology*, 20, 379-392.
- Veneziano, R. A., & Rohner, R.P. (1998). Perceived paternal acceptance, paternal involvement and youth's psychological adjustment in a rural, biracial southern community. *Journal of Marriage and the Family*, 60, 335-344.

Weiss, L.H. & Schwarz, J.C. (1996). The relationship between parenting types and older adolescents' personality, academic achievement, adjustment and substance use. *Child Development*, 67,2101-2114.

Yılmaz, A. (2001). The relationship between marital adjustment, parenting style and self-perception of children from different age groups. *Türk Psikoloji Dergisi*, 16, 1-24.



## APPENDIX A: Introductory Letter for Adolescents and Background Questionnaire

Sevgili Gençler,

Okul çağındaki gençleri daha iyi tanıyabilmek için yaptığımız bu çalışmaya katıldığınız için teşekkür ederiz. İlişikte sizin düşüncelerinizi daha iyi tanımamıza yardımcı olacak sorular bulacaksınız. Lütfen bu sorulara içtenlikle cevap verin. Anket formunun üzerine herhangi bir yerine adınızı ve soyadınızı yazmayınız. Verdiğiniz cevaplar tamamen gizli kalacaktır, kimseye gösterilmeyecektir.

1. Yaşınız: \_\_\_\_\_
2. Cinsiyetiniz: Kız:  Erkek:
3. Kaç kardeşiniz var? \_\_\_\_\_
4. Kardeşleriniz arasında siz kaçınıcı sıradasınız (örneğin en büyük, en küçük, ortanca vs)? \_\_\_\_\_
5. Bu okulda kaç yıldır okumaktasınız? \_\_\_\_\_
6. Anneniz hayatta mı? Evet:  Hayır:
7. Babanız hayatta mı? Evet:  Hayır:

8. Şu an oturduğunuz evde sizden başka kimler yaşıyor?

- |             |                       |                   |                       |
|-------------|-----------------------|-------------------|-----------------------|
| Anne        | <input type="radio"/> | Baba              | <input type="radio"/> |
| Üvey anne   | <input type="radio"/> | Üvey baba         | <input type="radio"/> |
| Büyükbaba   | <input type="radio"/> | Büyükanne         | <input type="radio"/> |
| Kardeş(ler) | <input type="radio"/> | Diğer akraba(lar) | <input type="radio"/> |

Diğer (lütfen belirtiniz): \_\_\_\_\_

9. Anne ve babanızın en son bitirdiği okulu işaretleyiniz.

	Anne	Baba
İlkokul	<input type="radio"/>	<input type="radio"/>
Ortaokul	<input type="radio"/>	<input type="radio"/>
Lise	<input type="radio"/>	<input type="radio"/>
Meslek Lisesi	<input type="radio"/>	<input type="radio"/>
2-yıllık Yüksek Okul	<input type="radio"/>	<input type="radio"/>
Üniversite (4-yıllık)	<input type="radio"/>	<input type="radio"/>
Yüksek Lisans ve üstü	<input type="radio"/>	<input type="radio"/>

10. Anneniz çalışıyor mu? Hayır:  Evet:

(Evet ise) anneniz ne iş yapıyor: \_\_\_\_\_

(Evet ise) Tam Zamanlı:

Yarı Zamanlı:

11. Babanız çalışıyor mu? Hayır:  Evet:

(Evet ise) babanız ne iş yapıyor: \_\_\_\_\_

(Evet ise) Tam Zamanlı:

Yarı Zamanlı:

## APPENDIX B: Authoritativeness Measure for Mothers

Lütfen aşağıdaki ifadeleri dikkatlice okuyun ve o ifadeye ne ölçüde katıldığınızı

**anneniz** için işaretleyiniz.

	Hiç	Biraz	Oldukça	Kesinlikle
1. Bir sorunum olduğunda, bana yardım etmesi için anneme güvenebilirim.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Annem, “büyüklerle tartışmamalısın” der.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Annem her yaptığım işte yapabildiğim en iyisini yapmam için sürekli ısrar eder.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Annem, “ insanları sinirlendirmektense, tartışmaktan vazgeçmelisin” der.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Annem onun etkisi altında kalmadan düşünebilmem konusunda ısrarlıdır.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Okulda düşük bir not aldığımda, annem beni perişan eder.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Derslerimde anlamadığım birşey varsa, annem bana yardım eder.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Annem, bana onun fikirlerinin doğru olduğunu ve onları sorgulamam gerektiğini söyler.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Annem, bana “şunu yap” dediği zaman neden yapmam gerektiğini söyler.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Ne zaman annemle tartışsam, “büyüdüğün zaman görürsün” gibi şeyler söyler.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Okulda düşük not aldığımda, annem daha çok gayret etmem için beni teşvik eder.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Annem, okul dışı faaliyetlerimi kendi istediğim biçimde planlamama karışmaz.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. Annem, arkadaşlarımda kimler olduğunu bilir.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. Annem, hoşuna gitmeyen birşey yaptığımda bana soğuk ve mesafeli davranır.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

15. Annem sadece laflamak için olsa bile bana zaman ayırır.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. Okulda düşük bir not aldığımda, annem bana kendimi suçlu hissettirir.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. Onun hoşuna gitmeyen birşey yaptığımda, annem ailece yapılacak şeylere katılmama izin vermez.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

18. **Annem** aşağıdakileri bilmeye ne kadar GAYRET EDER?

	Gayret Etmez	Biraz Gayret eder	Çok Gayret Eder
Akşamları nereye gittiğimi	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Boş zamanımda ne yaptığımı	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Okuldan sonra akşamüstleri nerede olduğumu	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

19. **Annem** aşağıdakileri ne kadar GERÇEKTEN bilir?

	Gayret Etmez	Biraz Gayret eder	Çok Gayret Eder
Akşamları nereye gittiğimi	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Boş zamanımda ne yaptığımı	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Okuldan sonra akşamüstleri nerede olduğumu	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## APPENDIX C: Authoritativeness Measure for Fathers

Lütfen aşağıdaki ifadeleri dikkatlice okuyun ve o ifadeye ne ölçüde katıldığınızı

**babanız** için işaretleyiniz.

	Hiç	Biraz	Oldukça	Kesinlikle
1. Bir sorunum olduğunda, bana yardım etmesi için babama güvenebilirim.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Babam, “büyüklerle tartışmamalısın” der.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Babam her yaptığım işte yapabildiğim en iyisini yapmam için sürekli ısrar eder.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Babam, “insanları sinirlendirmektense, tartışmaktan vazgeçmelisin” der.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Babam onun etkisi altında kalmadan düşünebilmem konusunda ısrarlıdır.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Okulda düşük bir not aldığımda, babam beni perişan eder.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Derslerimde anlamadığım birşey varsa, babam bana yardım eder.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Babam, bana onun fikirlerinin doğru olduğunu ve onları sorgulamam gerektiğini söyler.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Babam, bana “şunu yap” dediği zaman neden yapmam gerektiğini söyler.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Ne zaman babamla tartışsam, “büyüdüğün zaman görürsün” gibi şeyler söyler.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Okulda düşük not aldığımda, babam daha çok gayret etmem için beni teşvik eder.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Babam, okul dışı faaliyetlerimi kendi istediğim biçimde planlamama karışmaz.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. Babam, arkadaşlarımda kimler olduğunu bilir.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. Babam, hoşuna gitmeyen birşey yaptığımda bana soğuk ve mesafeli davranır.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

15. Babam sadece laflamak için olsa bile bana zaman ayırır.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. Okulda düşük bir not aldığımda, babam bana kendimi suçlu hissettirir.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. Onun hoşuna gitmeyen birşey yaptığımda, babam ailece yapılacak şeylere katılmama izin vermez.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

18. **Baban** aşağıdakileri bilmeye ne kadar GAYRET EDER?

	Gayret Etmez	Biraz Gayret eder	Çok Gayret Eder
Akşamları nereye gittiğimi	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Boş zamanımda ne yaptığımı	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Okuldan sonra akşamüstleri nerede olduğumu	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

19. **Baban** aşağıdakileri ne kadar GERÇEKTEN bilir?

	Gayret Etmez	Biraz Gayret eder	Çok Gayret Eder
Akşamları nereye gittiğimi	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Boş zamanımda ne yaptığımı	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Okuldan sonra akşamüstleri nerede olduğumu	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## APPENDIX D: Curfew Questions

Lütfen aşağıdaki sorular için size uygun olan seçeneği işaretleyiniz.

1. Tipik bir haftada, okul gecelerinde (Pazartesi – Perşembe) dışarıda kalabileceğin en geç saat nedir?

- Dışarı çıkmama izin verilmez
- 8:00 veya daha erken
- 9:00
- 10:00
- 11:00
- 11:00' den daha geç
- İstediğim kadar geç

2. Tipik bir haftada, CUMA veya CUMARTESİ gecesi dışarıda kalabileceğin en geç saat nedir?

- Dışarı çıkmama izin verilmez
- 8:00 veya daha erken
- 9:00
- 10:00
- 11:00
- 11:00' den daha geç
- İstediğim kadar geç

## APPENDIX E: Importance Of Education Questions

1. İyi bir eğitim aldığınızı varsayın. Bulmayı umduğunuz işi bulma ihtimaliniz ne kadar yüksektir?

Kesinlikle  
Bulamam

Belki  
Bulabilirim

Büyük İhtimalle  
Bulurum

Kesinlikle  
Bulurum

2. İyi bir eğitim almadığınızı varsayın. Bulmayı umduğunuz işi hala bulma ihtimaliniz ne kadar yüksektir?

Kesinlikle  
Bulamam

Belki  
Bulabilirim

Büyük İhtimalle  
Bulurum

Kesinlikle  
Bulurum

## APPENDIX F: Marital Satisfaction Scale

Anne-babanızın birbirleri ile olan ilişkilerini düşünün ve aşağıdaki ifadelere ne kadar katıldığınızı, ifadenin yanına işaretleyiniz.

	Hiç	Biraz	Oldukça	Kesinlikle
1. Annem ve babam birbirlerine karşı sevgi dolu ve şefkatlidirler.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Annemin ve babamın benzer istek ve amaçları vardır.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Annemin ve babamın evlilikleri ile ilgili sorunları vardır.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Annem ve babam birbirlerine sinir olurlar.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Annem ve babam birbirlerinin dediklerine pek kulak asmazlar.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Annem ve babamın evlilikleri, birçok evlilik kadar iyi değildir.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Annem ve babam evliliklerinden çok memnundur.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Annem ve babam nadiren birlikte gülerler.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Annem ve babam birbirlerine kendileri hakkında fazla şey anlatmazlar.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Annem ve babam tatilleri nasıl geçirecekleri konusunda aynı fikirdedirler.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Annem ve babam sık sık para konusunda tartışır.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Annem ve babam birbirleri ile iyi anlaşır.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. Annem ve babamın ayrılmayı düşündükleri olur.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. Annemin ve babamın, birbirlerinin akrabaları ile olan ilişkilerinde bir sorunu yoktur.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. Annem ve babam birbirlerine karşı anlayışlıdır.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. Annem ve babam çocuk yetiştirme konusunda aynı fikirdedirler.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>