The Effect of Parental Control on Externalizing Behaviors in Early Childhood

by

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This is to certify that I have examined this copy of a master's thesis by

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STATEMENT OF AUTHORSHIP

This thesis contains no material which has been accepted for any award or any other degree or diploma in any university or other institution. It is affirmed by the candidate that, to the best of her knowledge, the thesis contains no material previously published or written by another person, except where due reference is made in the text of the thesis.

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ABSTRACT

This study examined the effect of parental control (behavioral, psychological, and physical) and its correlates (parental warmth, parental use of inductive reasoning, and SES) on the externalizing behaviors of 3 year-old children in Turkish culture. The study encompassed conceptual and empirical work to define parental control. It was proposed that cross cultural generalizability of dimensions of parenting and their effects on children's externalizing behaviors can be achieved by eliminating implicit assumptions regarding the coexistence of various conceptually distinct aspects of parenting such as parental control and lack of parental warmth. The data were collected by qualitative methods on parent-child interactions and quantitative methods with questionnaires (N=123) from the participants of the Study of Early Childhood Developmental Ecologies in Turkey (ECDET). The results indicated that (i) Turkish mothers preferred to exercise three types of parental control simultaneously; (ii) children of mothers who impose higher parental control displayed higher externalizing problems compared to others; (iii) the non-linear effects of behavioral control on child externalizing behaviors suggesting an optimum level for the behavioral control; (iv) there were interactive effects of behavioral and psychological control with parental warmth. The major contributions of the current study were to investigate the effects of three types of parental control on child externalizing behaviors of 3 year- old children in Turkish context with studying the independent and interactive effects by both qualitative and quantitative means.

Keywords: Externalizing behaviors, psychological control, behavioral control, physical control, parental warmth, early childhood, culture.

ÖZET

Bu çalışma, ebeveynlerin kontrolcü davranışlarının (davranışsal, psikolojik ve fiziksel) ve ilişkili olduğu değişkenlerin (sıcaklık/yakınlık, açıklayıcı akıl yürütme ve SED) çocuğun dışsallaştırma davranış problemlerine etkisini, Türk kültüründeki 3 yaş çocukları üzerinde araştırmayı amaçlamıştır. Bu araştırmada, ebeveynlerin kontrolcü davranışlarını tanımlamak için kavramsal ve deneysel çalışmalar yapılmıştır. Sıcaklık/yakınlık davranışları, ebeveynlerin kontrol davranışlarıyla aynı anda görülebilmekte ve bu durum ebeveyn davranışlarında kültürler arası farklar yaratabilmektedir. Çalışmanın verileri hem anne-çocuk ilişkisini gözlem yoluyla değerlendiren niteliksel yöntemle hem de annelere sorulan anketler yoluyla ölçülen niceliksel yöntemlerle elde edilmiştir. Çalışmanın örneklemini, Türkiye'de Erken Çocukluk Gelişim Ekolojileri (TEÇGE) araştırmasının katılımcılarından rastlantısal yolla seçilmiş, 123 anne-çocuk ikilisi oluşturmaktadır. Çalışma bulgularına göre (i) Türk toplumunda ebeveynlerin, kontrol davranışlarını tek boyutlu bir kavram olarak algıladıkları ve üç kontrol türünü de aynı anda uyguladıkları saptanmıştır; (ii) Yüksek kontrol uygulayan ebeveynlerin çocuklarında, dışsallaştırma davranış problemlerine daha sık rastlanmıştır; (iii) Davranışsal kontrol için, çocuğun dışsallaştırma davranışları üzerinde bulunan doğrusal olmayan ilişki göstermiştir ki davranışsal kontrol için optimum bir seviye bulunmaktadır; (iv) Ebeveynlerin sıcaklık/yakınlık ve kontrol davranışları arasında etkileşim ilişkisi bulunmuştur. Bu çalışmanın en önemli katkısı, Türk kültüründeki ebeveyn kontrol davranışlarını ve bunun çocukların dışsallaştırma davranış problemlerine etkisini hem niceliksel hem de niteliksel yöntemlerle araştırmasıdır.

Anahtar Kelimeler: Dışsallaştırma davranışları, davranışsal kontrol, psikolojik kontrol, fiziksel kontrol, sıcaklık/yakınlık, erken çocukluk, kültür.

DEDICATION

To My Mother

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Chapter 1

INTRODUCTION

In this Master's thesis, parental control behaviors of mothers of 3-year old children in Turkey were examined. The ultimate aim of this Master's thesis was to investigate the effect of parental control and other related factors (e.g. parental warmth, parental use of inductive reasoning, and SES) on children's externalizing behavior problems. In the rest of this section, the role of parenting in child development is discussed. The rationale to study parenting in the Turkish culture is also addressed. Then, the significance of a focus on parental control and its relation with child externalizing behaviors is provided.

Parenting has been a focus of developmental research due to its importance and influence on child outcomes (Grolnick, Price, Beiswenger, & Sauck, 2007). According to Bronfenbrenner's ecological systems theory, family is a major component of microsystem, the ecology that influences the child directly. Therefore, parenting styles, parent attitudes, and parenting behaviors have substantial influences on children's development (Bronfenbrenner, 1986). Also, as Bandura proposed in his social learning theory, children learn from their parents by observing and modeling. Therefore, discipline style of the parents shape the strategies children use in their own social interactions (Crain, 1992).

There is an agreed upon approach to classify the parenting styles. Parenting styles are often classified as authoritarian, authoritative, permissive, and uninvolved. However, there are problems with the cross-cultural generalizability of this classification (Chao, 1994; Kagitcibasi, 1970). Authoritarian parents use a restrictive pattern of parenting where they demand obedience by strict and harsh means of discipline in a cold and rejecting way (Berk, 2003; Rudy & Grusec, 2006). Authoritarian parenting implies control in parenting, but not all parents who exercise control in non-Western cultures necessarily reject their children, or use physical disciplinary strategies as it was suggested for authoritarian parents in Western cultures (Chao, 1994; Kagitcibasi, 1970; Liu et al, 2005). The way the parenting discipline imposed in the Turkish culture is different than Baumrind's parenting typologies, because population in Turkey generally hold non-Western collectivistic values. In this thesis, cultural differences in parenting receive special attention because this study is conducted in the context of a collectivistic (Turkish) culture.

Parental control is one of the dimensions of parenting, and it is conceptually and empirically associated with other dimensions of parenting such as parental warmth and parental use of inductive reasoning. However, various dimensions of parenting and various names that are used to refer to those dimensions in the literature are not well delineated, and they overlap with parental control (Barber, Stolz, & Olsen, 2005).

This thesis aims to examine parental control, its correlates, and its outcomes for children's socio-behavioral development by focusing on externalizing problems. There is a conceptual problem with the definitions of parental control in the

literature. While parental control has common attributes with authoritarian parenting, it does not necessarily imply that all authoritarian parents exercise behavioral, psychological and physical control. Similarly, parents who exercise a high level of control are not necessarily authoritarian. The extant conceptual and operational definitions of control could be improved. There are inconsistent definitions of psychological and behavioral control in the literature. Moreover, there are inconsistencies between the conceptual definitions of control and their corresponding empirical measurements (See Appendix A). That is why, one of the aims of this thesis is to first delineate these inconsistencies and then to conceptually and empirically clarify the constructs of psychological, behavioral, and physical control.

Parental control and its effects were investigated in middle childhood and adolescence years but there is little research on the effects of parental control in early childhood years (Aunola & Nurmi, 2005; Hart, Nelson & Robinson, 1998). It is not known whether the dimensions of parental control align with the typical Western conceptualization, because there is no study aiming to understand the parental control of children in the Turkish culture. In this thesis, three dimensions of parental control were studied: behavioral, psychological and physical control.

Behavioral control was conceptually defined as the parental behaviors that aim to regulate and monitor children's behavior in the desired direction through expectations, guidelines, limits, rules, and restrictions (Barber, 1996; Barber, 1994; Gurland & Grolnick, 2005; Hasebe, Nucci & Nucci, 2004; Mills & Rubin, 1998). Indeed, literature mostly consists of the studies of parenting in adolescence and thus emphasizes monitoring and knowledge of adolescents' whereabouts in order to

define behavioral control (Barber, 1996; Gray & Steinberg, 1999). In this thesis behavioral control is defined as *the parental attempts to manage a child's behaviors through rules, regulations, directives, and limits set by the parents.*

Psychological control was defined as the manipulative and constraining parental behaviors that interfere with the child's emotional and psychological development (Aunola & Nurmi, 2005; Barber & Harmon, 2002; Hart, Nelson & Robinson, 1998; Hasebe, Nucci & Nucci, 2004; Shek 2007). The table of conceptual definitions and empirical measures of behavioral and psychological control by different studies is given in Appendix A. According to the most agreed upon definition, psychological control refers to *parenting behaviors which attempt to modify children's behaviors by manipulating the children's emotional experiences through expressions or threats of negative emotions.*

The third dimension of parental control, physical control, was consistently defined as the physically coercive behaviors of parents who use non verbal physical means of punishment and physical threats that are expressed verbally to control children's behaviors (Strassberg, Dodge, Petit, & Bates, 1994; Kuczynski, 1984). This study adopts this common definition of physical control used throughout the literature.

This thesis focuses on children's externalizing problems as an outcome of parental control, because these behaviors tend to be stable and are known to have negative outcomes on children's family and peer relations (Aunola & Nurmi, 2005; Campbell, 1995; Coie & Dodge, 1998). Children with externalizing problems are

more prone to peer rejection, because of their inability to approach their peers with prosocial behaviors (Wood, Cowan, & Baker, 2002). In addition, they tend to have difficulties in academic and social domains in later years of life because they have a high probability of school drop out, substance abuse, and delinquency (Deater-Deckard & Dodge, 1997; Gauthier, 2003; Joussement et al., 2008; Webster-Stratton & Reid, 2003).

Although some level of behavioral control is found to be necessary to decrease the externalizing problems in children, excessive use of control leads to high levels of problem behaviors (Pomerantz & Ruble, 1998; Barber, 1994). In general, high levels of behavioral, psychological and physical control is associated with high levels of externalizing behavior problems in children. The independent and interactive effects of control dimensions were previously studied in the Western culture. However, it is not known how much parental control is used, which types of control are preferred, and how control is associated with children's externalizing behaviors in Turkey. It is one of the aims of this thesis to explore the dimensions of control and their associations with child outcomes.

Parental control and parental warmth were measured with an observational method in this thesis. Observational data are more sensitive and objective than parent reports and can complement the information obtained by other measures. Also the observational data can partly overcome the problem of social desirability in parent reported data (Gay & Airasian, 2003; Robson, 2005). The correspondence between observational and quantitative measures of parenting control was also studied in this thesis.

The rationale of cultural investigation of parental behaviors by focusing on parental control and its correlates is presented in the following section. The detailed review of the construct of parental control and its outcomes on child socio-behavioral development is also provided. The conceptual framework is described and hypotheses of the study are provided.

Chapter 2

LITERATURE REVIEW

This section starts with the rationale of studying parental control as a major dimension of parenting. Second, the definition of externalizing behaviors is given and the previous studies on the association of parenting with externalizing behaviors are examined. Third, the definition of parental control (behavioral, psychological, and physical) is presented. Fourth, cultural factors associated with parental control are provided. Fifth, the consequences of parental control as studied in Western cultures are summarized. Sixth, the culture specific consequences of parental control in Turkey are given. Last, the presentation of the current study is provided.

2.1 Parental control and externalizing behaviors

Parental control was found to be associated with externalizing problems in children (Aunola & Nurmi, 2005; Bradley, 2000; Rubin, & Mills, 1990). It is important to understand the process of link between parental control and externalizing problems.

2.1.1 Parental control as a major dimension of parenting behaviors

Parental control is one of the major components of parenting. The most broadly accepted classification of parenting style is Baumrind's definition of

parenting with categories of authoritarian, authoritative or permissive (Baumrind, 1968, as cited in Bornstein, 1995). Maccoby and Martin (1983) added a fourth style, the uninvolved parenting style. This classification emphasizes two dimensions of parenting: degree of parental warmth and responsiveness to the child, on one hand, and the style of control in parenting and the degree the demandingness of the parent, on the other. Using a two dimensional classification, authoritative parents are described as warm, responsive, and attentive to the needs of the children where they support the autonomy development and use adaptive control techniques by allowing children to reason and make decisions of their own. In contrast, authoritarian parents are cold and rejecting towards their children and they use power assertive techniques, criticize, command and harshly control and discipline their children (Berk, 2003). However, according to various cross- cultural studies, this type of classification can not be generalized cross-culturally, because not all parents exercising control necessarily reject their children in non-Western cultures (Chao, 1994; Kagitcibasi, 1970).

The concept of parental control is related to power assertion which emphasizes children's obedience to parents with high level of punishment and verbal commands without an explanation "do this, stop that"; Gurland & Grolnick 2005; Bornstein, 1995). Power assertive parents do not use inductions where they do not explain things, do not encourage reasoning in their children and do not engage in verbal give- and- take with them (Grusec & Goodnow, 1994; Grusec, Goodnow, & Kuczynski, 2000). In accordance with the operational definition of parental control in this study, it is suggested that highly controlling parents use power assertive techniques as a means to pressure their children to obey and comply with the rules in

contrast to autonomy supporting parents who encourage their children to reason and participate in decision making (Grolnick, Price, Beiswenger, & Sauck, 2007; Pomerantz & Ruble, 1998).

2.1.2 Parenting and externalizing behaviors

Externalizing behaviors refer to broad range of acting out behaviors consisting of aggressive (e.g. fighting, bullying), impulsive, hostile, defiant, oppositional, and destructive behaviors (Achenbach, Edelbrock, & Howell, 1987; Rothbaum & Weisz, 1994; Wicks-Nelson & Israel, 2003). Clinical diagnostic definition of DSM-IV for externalizing behavior problems (also referred as disruptive behavior disorders) comprise oppositional defiant disorder, conduct disorder, and attention-deficit hyperactivity disorder (Bradley, 2000; APA, 1994).

Several theories explained the way the parental behaviors affect the externalizing behaviors of children. Bandura's social learning theory suggests that children learn by observing and modeling their parents' behaviors. Thus, power assertive and punitive parenting practices are directly learned by children and they act out the same negative behaviors (Crain, 1992; Baumrind, 1996; Deater-Deckard & Dodge, 1997). Another theory that explains the impact of parenting practices is the Patterson's coercive theory. According to this theory, parenting behaviors and child behaviors feed each other when both of them behave aversively. The cycle begins with the parent's desire for changing the child's ongoing behavior with a directive and then the child's response with an externalizing behavior problem (whining, shouting, etc.). If the parent gives in rather than following through with her directive,

the child is negatively reinforced for her/his behavior which elicits negative behaviors from the child in the future. Thus, there is an increase in the probability of this negative exchange and a mutual influence that increases the level of negative behaviors displayed by the parent and the child (Patterson, 1982).

The results of studies indicated that power assertive (hostility, rejection, and criticism) and highly controlling parenting led to externalizing behavior problems in children (Aunola & Nurmi, 2005; Bradley, 2000; Chang et al., 2003; Hart et al., 1998). Besides, it was suggested that children of families with lower socioeconomic displayed higher levels of externalizing behaviors due to the stress of low socioeconomic conditions. This led parents to be more coercive and less affectionate towards their children (Çekici, 2003; Frigerio et al., 2004).

2.1.3 Rationale for studying the externalizing behaviors

Externalizing behaviors received special attention in developmental literature because they occur early in life and tend to be stable (Aunola & Nurmi, 2005; Coie & Dodge, 1998; Campbell, 1995; Deater-Deckard & Dodge, 1997). Various studies revealed that externalizing behaviors led to problems in peer and family relationships in early years of life (e.g. peer rejection), and academic and disruptive problems (e.g. substance abuse, school drop out and delinquency) in adolescence years (Deater-Deckard & Dodge, 1997; Gauthier, 2003; Joussement et al., 2008; Webster-Stratton, 2003). Moreover, the negative correlates of externalizing behaviors in the cognitive domain (e.g., difficulties in expressive vocabulary skills, receptive vocabulary skills) were found in children as young as 3 years of age (Arnold, 1997).

2.2 Definition of parental control

In general, parental control refers to all control behaviors in parenting in which a parent inhibits, directs or modifies an ongoing behavior and activity of the child with a desired one (Schaffer & Crook, 1980). In the current study, three types of parental control was considered: behavioral, psychological, and physical control (Gurland & Grolnick, 2005; Montazer, 2005; Strassberg, Dodge, Petit, & Bates, 1994). Literature presented a consistent conceptual definition of physical control but there were inconsistent definitions and measures for behavioral and psychological control. It is believed that these definitions must be further improved by grounding them in theory and achieving conceptual clarity independent of their possible impacts on children's developmental outcomes. The problem of conceptual definition of behavioral and psychological control in parenting is addressed, below.

Parental control was defined as behavioral and psychological control throughout the literature (Aunola & Nurmi, 2005; Barber, Olsen & Shagle, 1994; Hasebe, Nucci & Nucci, 2004). It was proposed that the distinction between two types of control should be maintained, because these two concepts focus on different aspects of control in parenting. Nevertheless, they both play important roles in children's development, but their outcomes differ.

There is little research aiming to understand the effects of behavioral and psychological control and their joint effects on children's development especially in relation to physical control and other dimensions of parenting. Barber et al. (1994) found that there was a negative association between psychological and behavioral

control indicating that they are distinct constructs (Barber, Olsen, & Shagle, 1994). Factor analytic studies also supported the necessity to study them separately, because these two types of control in parenting load on different factors (Aunola & Nurmi, 2005; Barber, Olsen & Shagle, 1994; Hasebe, Nucci & Nucci, 2004; Shek, 2007). Thus, psychological and behavioral control could not be considered on the same continuum, but they were empirically and conceptually distinct.

One of the reasons to study behavioral and psychological control as distinct constructs is that they may not necessarily be used simultaneously by the parents. It is possible that there may be some parents who exercise both behavioral and psychological control, but there may also be parents who are high in behavioral but not in psychological control or vice versa (Barber, Olsen, & Shagle, 1994). Thus, in order to understand the distinct effects of different levels of each type of parental control, they must be separately measured and studied as distinct constructs. The studies defining behavioral and psychological control are listed and summarized in Appendix A.

2.2.1 Conceptual and Operational Definition of Behavioral Control

For the purpose of this thesis, behavioral control is defined as parents' efforts to control and manage the child's behaviors. It refers to parental (a) rules, (b) regulations, (c) guidelines, and (d) limit setting behaviors in order to encourage the child to perform a certain behavior in accordance with parental expectations.

According to Barber's (1996) definition, behavioral control in parenting is the set of "attempts to manage or control the child's behavior" which refer to parental regulations and behaviors that include expectations, guidelines, limits, clear and consistent rules, restrictions, and structures for children in order to be "a competent member of a society" (Barber, 1996; Barber, Olsen, & Shagle, 1994).

Most of the studies referred to the definition of Barber (1996) in order to conceptualize behavioral control. Similar to Barber's definition, behavioral control was defined as the level of parental monitoring and limit setting with rules, regulations, and restrictions which aim to socialize children and regulate their behaviors (Aunola & Nurmi, 2005; Galambos, Barker & Almeida, 2003; Gurland & Grolnick, 2005; Hasebe, Nucci, & Nucci, 2004; Joussemet et al., 2008; Mills & Rubin, 1998; Shek, 2007; Silk, Morris, Kanaya & Steinberg, 2003). Moreover, behavioral control was conceptualized as parental knowledge and parental monitoring, in studies conducted with adolescents, which was defined as the parents' knowledge about their daily activities and whereabouts (Barber, 1994; Hasebe, Nucci & Nucci, 2004; Harma, 2008).

In addition to the most agreed upon definitions of behavioral control, there are some other definitions. For instance, Aunola and Nurmi (2005) also included maturity demands on child through firm and consistent discipline as behavioral control in their studies. Predictable contingencies for child's behavior is another definition for behavioral control (Mills & Rubin, 1998).

Behavioral control was measured mostly by mother reported or observational data. There are consistent items with the operational definition that included monitoring (parental awareness and knowledge of children's daily activities), commands and rules, maternal expectations, and unrestricted autonomy granting, (Aunola & Nurmi, 2005; Barber, 1996; Barber, Olsen & Shagle, 1994; Gurland, & Grolnick, 2005; Hasebe, Nucci & Nucci, 2004; Mills & Rubin, 1998; Shek, 2007) and prohibitions such as verbal restrictions "Don't touch it", explicit or implicit commands and play directives, unsolicited checking, taking over the child's task, overinvolvement and telling/showing the answer of a task in which parent and child are working on together in structured observations (Chen, Wu, Chen, Wang, Cen, 2001; Dekovic & Janssens, 1992; Gurland, & Grolnick, 2005; Mills & Rubin, 1998).

There are some inconsistencies between the conceptual and operational definitions of behavioral control. For instance, Shek (2007) and Aunola and Nurmi (2005) measured behavioral control with items including maternal praise or rebuke/scolding that was not consistent with the definition of rules, regulations, and limit setting. Similarly, there are inconsistencies among the coding frames of observational data and conceptual definitions such as reward and threat of punishment. These latter operationalizations do not match with a definition focusing on clear and consistent rules and structure for the child's behavior (Mills & Rubin, 1998).

2.2.2 Conceptual and Operational Definition of Psychological Control

In this thesis, psychological control is defined as parenting behaviors that constrain and manipulate children's psychological experiences. These parenting behaviors aim to make the child feel guilty, anxious, and worthless through (a) manipulating and exploiting the parent-child bond (e.g., love-withdrawal, guilt induction, expressing the psychological distance, and isolating the child), and (b) expressing negative affect-laden criticisms (e.g., disappointment and shame).

Definition of psychological control was agreed upon by most researchers, but there are some incongruities between the conceptual definition and the empirical measurement of psychological control. Mainly, there is a consensus in the literature about Barber's definition of psychological control. Barber (1996) defined psychological control as "constraining, manipulating or invalidating children's psychological and emotional experiences and expressions" including their thinking processes, self-expression, emotions, and attachment to parents in which they 'intrude into psychological and emotional development of the child (Aunola & Nurmi, 2005; Hart, Nelson & Robinson, 1998; Hasebe, Nucci & Nucci, 2004; Mills & Rubin, 1998; Shek, 2007; Silk et al., 2003). The above definition of psychological control, however, defined control in parenting by its outcome ("intruding in psychological development"), thus rendering any exploration of its association with development outcomes redundant.

With respect to the above definition, Barber and Harmon (2002) categorized psychological control into two main types: manipulative and constraining. Manipulative control was defined as guilt induction, love withdrawal, and instilling anxiety which makes children feel the stress of conditional affection of their parents. On the other hand, parents exercising constraining control limit the verbal behaviors of their children and inhibit the child's expressions. Some definitions such as personal attack, erratic emotional behaviors were not captured by this two dimensional conceptualization, but were considered to be important aspects of psychological control (Barber & Harmon, 2002). Barber and Harmon's definition of psychological control was one of the most agreed upon definitions and many studies on psychological control adopted their definition (Aunola & Nurmi, 2005; Hart, Nelson, & Robinson, 1998; Hasebe, Nucci & Nucci, 2004; Shek, 2007; Steinberg, 2005).

Psychological control is seen as parenting behaviors which aim to control child's activities by influencing his/her psychological and emotional development negatively, inhibiting the child's individuation process. By manipulating and exploiting the parent-child bond (e.g., love-withdrawal, guilt induction, expressing the psychological distance, and isolating the child), using negative affect-laden expressions and criticisms (e.g., disappointment and shame), and imposing excessive personal control (e.g., possessiveness, protectiveness), parents exercise psychological control over their children (Bronfenbrenner, 1970; Barber, 1996; Sabatelli, & Mazor, 1985; Shek, 2007; Smetana & Daddis, 2002). Through psychological control, it is expected by the parents that children learn that until they change their inappropriate

behaviors, negative feelings of their parents would continue (Hart, Nelson & Robinson, 1998).

In contrast with commonly agreed with and frequently used definition of psychological control, Joussemet et al. (2008) viewed control in parenting as psychological control defined as power assertive parenting, that opposes psychological autonomy. Joussemet et al.'s study did not take behavioral control into account, and that was why control in parenting was defined broadly including both psychological and behavioral control. However, this approach did not help conceptually classify and operationally define behavioral and psychological control separately in order to understand their unique effects on children' social and behavioral development.

Psychological control was mostly measured by mother reports and with videotaped observations. It was measured with items assessing parenting behaviors that attempt to influence the emotions of the child when she/he does something wrong (disappointed, ashamed, guilty, love withdrawal), to act cold and nonresponsive to the child, and to devalue the child (insult, humiliate, blame or criticize the personality) (Aunola & Nurmi, 2005; Barber, 1996; Barber, Olsen & Shagle, 1994; Gurland & Grolnick, 2005; Hart, Nelson & Robinson, 1998; Mills & Rubin, 1998; Shek, 2007; Silk et al., 2003). These are the most agreed upon operational definitions that are consistent with their conceptual definitions. However, there are measurement discrepancies with the conceptual definitions of particular studies. For instance, in some studies, psychological control was defined as control attempts that intrude in the child's psychological and emotional world through

manipulating of parent-child bond with love withdrawal, and guilt induction, but they measured it with the items emphasizing obedience to parents or controlling the daily activities of the children (Barber, 1996; Barber, Olsen & Shagle, 1994; Hasebe, Nucci & Nucci, 2004; Joussemet et. al., 2008; Shek, 2007; Silk et al., 2003).

2.2.3 Conceptual and Operational Definition of Physical control

Physical control is defined as disciplining the child by using physical punishment in this thesis. The non verbal parenting behaviors to establish power assertive control on children includes parents' intentional negative touches and aversive, hurtful, and restrictive acts towards the child.

In addition to psychological and behavioral control, physical control is also a type of control in parenting which affects children's socio-behavioral development, where physical control includes the use of physical punishment or restriction in order to manage children's behaviors (Kuczynski, 1984; Strassberg, Dodge, Petit, & Bates, 1994). There is consensus about the definition and measurement of physical control in the literature. Physical control in parenting means exercising physically coercive control on the child. These include behaviors such as yelling, kicking, hitting, pulling the hair or ear, shouting, overt expressions of anger and using physical threats (Berk, 2003; Patterson, 1982; Strassberg et al., 1994). Physical control is mostly measured by parent reports. Parents were asked to report whether they undertake a set of specified behaviors.

2.2.4 Parental control in the Turkish family

Little is known about Turkish parents' style of discipline, i.e., whether control is achieved through power assertion or induction. For example, in Kircaali-Iftar's (2005) study, verbal expressions that (a) explained why a behavior of the child is undesirable, (b) explained the consequences of the behaviors (c) told the child how upset the mother is due to child's misbehavior were coded as warnings not to do that behavior again. However, in order to understand the process through which parental control may influence child outcomes, these verbal expressions should have been separately coded according to their underlying strategy (psychological control or behavioral control).

Parents of collectivist cultures such as China expect their children to obey the rules of the family and the society, thus emphasize obedience in their parenting behaviors (Liu et al., 2005; Chen et al., 2001). Research indicated that Turkish parents displayed behaviors similar to Chinese parents because of their collectivistic values, resulting in similar outcomes in children (Kagitcibasi, 1970; Rudy, & Grusec 2006). Obedience to the parents and to family rules and conformity is important for Turkish parents (Kagitcibasi, 1996). Turkish parents mostly used verbal directives, taking away privileges, shouting, physical punishment, and power assertive techniques whereas reasoning and induction were rarely used in disciplining children (Kagitcibasi, Sunar, & Bekman, 1988 as cited in Roopnarine & Carter, 1992; Kagitcibasi et al., 2001; Kircaali- Iftar, 2005). Also, studies suggested that Turkish children perceived control behaviors of their parents as normative and interpreted control as parental involvement and warmth, even when they used behavioral control

and psychological control by means of shame and guilt induction (Dogruyol, 2008; Harma, 2008).

2.3 Cultural factors associated with parental control

In spite of some common characteristics of different parenting styles, cross-cultural studies indicated that parenting styles, defined as 'predetermined configurations of different dimensions of parenting', were not generalizable across cultures (Chao, 1994; Kagitcibasi, 1970). According to Baumrind, authoritarian parents are cold and rejecting in addition to using control strategies with power assertive techniques. On the other hand, authoritative parents are responsive where they use developmentally appropriate control strategies with the parental use of inductive reasoning. This definition of authoritarian and authoritative parenting is not applicable in collectivistic cultures such as China and Turkey (Chao, 1994; Kagitcibasi, 1970). That is why, rather than focusing on a parenting "style" with assumed associations between its component dimensions, it is desirable to focus on the conceptually distinct dimensions of control and warmth and examine how these independently and interactively influence developmental outcomes in children.

As an example, Liu and colleagues' found that Chinese mothers had authoritarian and authoritative styles simultaneously. On one hand, they emphasized obedience and parental strictness, attributes of authoritarian parenting. On the other hand, they displayed some attributes of authoritative parenting such as parental acceptance and responsiveness (Liu et al, 2005).

Parental control and warmth must be jointly studied. Different outcomes are expected depending on whether the parents are warm while they discipline their children. Rudy and Grusec (2001) claimed that in collectivistic cultures (e.g., Turkish, Indian, Asian, and Chinese) parents were restrictive, controlling, and obedience demanding with power assertive techniques but they maintained a more positive climate of parental affect and warmth than in individualistic cultures. In individualistic settings, power assertive parents also tended to reject their children, thus the outcomes for children were negative (externalizing or internalizing problems).

In summary, patterns of parenting in Turkey and in China did not match with the patterns seen in Western Europe and North America. The former groups of parents are non-rejective towards their children, simultaneously as they display high levels of control (Kagitcibasi, 1970; Wu et al, 2002). In addition, children of Turkish parents perceive parental control as normative and corrective. Parental control in this context may not lead to negative outcomes unlike in children in individualistic cultures. This can be partly explained by the buffering effect of parental warmth and affection on parental control (Aunola & Nurmi, 2005; Kagitcibasi, 1996; Parpal & Maccoby, 1985). Therefore, in order to achieve a cross-cultural understanding of the separate and interacting influences of the dimensions control and warmth, they should be studied simultaneously.

2.4 Consequences of parental control

Parental control usually starts when children are young and remains stable (Joussemet et al., 2008). Therefore it is important to study the effects of parental control on children.

2.4.1 Consequence of behavioral, psychological, and physical control

Parental control is known to have consequences for social and behavioral development of children. Children of parents who exercise high levels of behavioral, psychological, and physical control tend to be highly dependent on their mothers. These mothers tell them what to do in social contexts and do not allow them to be active participants in their own social relationships with their peers (Rubin & Mills, 1990). Thus, as in the case of aggressive children whose parents are low in behavioral control and limit setting, children of overprotective mothers are unable to learn about alternative ways of dealing with social problems. This inability to generate solutions to problems result in negative outcomes such as deviant and aggressive behaviors, and inability to self regulate (Rubin, & Mills, 1990).

It is likely that there is a degree of parental control that is adaptive and a certain threshold beyond which control results in adverse outcomes for a child's social development. Conceptually and empirically defining that threshold for each type of parental control helps clarify the negative connotations of parental control.

In addition to interfering with social development, parental control and power assertiveness may interfere with behavioral development. Grolnick (2003) proposed that controlling parents give less value to explaining the consequences of child's own behaviors, reasoning, verbal give- and- take, and supporting children's autonomy. When there is no explanation given to the child for his/her behavior, the commands of the parents are not internalized and the child can not recall when and why he/she should display a certain behavior (Grolnick, 2003; Grusec, Goodnow, & Kuczynski, 2000). Children of parents who use inductive reasoning in their discipline are more likely to regulate their behaviors because they are active in controlling their own behaviors through the internalization of parental reasoning (Bornstsein, 1995; Grusec, Goodnow & Kuczynski, 2000; Knafo & Plomin, 2006). Eisenberg (1977) suggested that this inability to internalize norms as a consequence of parental control generalized to the emphatic behaviors of the child. The internalization of the decision making and reasoning process through the use of induction, rather than power assertion, led children to be more emphatic, have more tolerance for differences, be responsible and helpful towards their peers rather than being aggressive (Clark & Ladd, 2000; Knafo & Plomin, 2006).

In general, setting some limits and rules for young children, which the researchers call structure, have benefits (Pomerantz & Ruble, 1998). Barber et al. (1994) found that behavioral control maintaining reasonable and developmentally appropriate limits decreased externalizing problems and increased the compliance of children in social contexts. However, overprotective and overly concerned mothers and highly controlling mothers tended to have children who were more likely to be socially withdrawn or aggressive than children of mothers who used normative levels

of control. The children of highly controlling mothers were also found to have less social efficacy in their social relations with their peers, and displayed defiant and immature behaviors. This was found to be related to the inability to self regulate and inability to rely on oneself due to an intensive, restrictive and non-democratic approach to discipline which prevents children from creating opportunities for social exploration (Chen, Liu, & Li, 2000; Gurland & Grolnick 2005; Olweus, 1993; Rubin, & Mills, 1990; Rubin, Stewart & Chen, 1995).

It was also found that children of parents who used too little behavioral control had externalizing behavior problems (aggressive, disruptive, and antisocial behaviors) as well as difficulties in self regulation (Aunola & Nurmi, 2005; Barber, Olsen, & Shagle, 1994). Children experiencing low levels of behavioral control are at risk of developing externalizing problems because, (1) optimum level of parental behavioral control allow the children to learn self-regulation skills which results in socially acceptable behaviors, and (2) behaviorally undercontrolled children are more likely to be influenced by their peers where they can learn deviant and antisocial behaviors, especially during adolescence (Barber, Stolz, & Olsen, 2005). Thus, low and high levels of behavioral control were found to be related to increased externalizing behaviors and this association was mediated with low levels of self regulation abilities (Harma, 2008). Optimum level of behavioral control led to high conformity, high self regulation abilities, and low externalizing and antisocial behaviors (Barber, Stolz, & Olsen, 2005).

Earlier studies found that psychological control was associated with internalizing behavioral problems such as anxiety and depression but not with externalizing behaviors (Barber, Olsen & Shagle, 1994; Barber 1996; Hasebe, Nucci & Nucci, 2004; Silk et al., 2003). But recently, parental psychological control was also linked to externalizing problems such as overt aggression, as well (Barber & Olsen, 1997; Barber, Stolz, & Olsen, 2005; Joussemet et al., 2008; Hart et al.,1998; Silk et al., 2003). Similar to behavioral control which not only leads to externalizing problems, but also to internalizing problems such as anxiety when it is used excessively, Hart, Nelson & Robinson's study supported the idea that excessive use of maternal psychological control was significantly associated with overt aggression in school age children (Hart et al., 1998). It was found that, imposing psychological control especially with negative verbalizations such as blame and derogation caused aggression in children (Mills & Rubin, 1998).

Children of psychologically controlling parents have externalizing behavior problems because they do not learn to adapt and regulate their behaviors in different situations when they face difficulties. This inability is due to their parents' manipulative and threatening control that teaches children not to trust their own ideas and prevents them to develop their personal efficacy. Children learn to do desirable behaviors, because of the fear of parental love withdrawal without internalization of the norms and the rules (Barber, Olsen & Shagle, 1994). It was found that psychological and behavioral control led to aggressive behaviors in children, because both these types of control prevented children from developing self regulation skills. This inability to self regulate was related with simply valuing external control of the

parent that undermined the children's autonomy (Grolnick, 2003; Harma, 2008; Joussemet et al., 2008).

In contrast to previous findings, no significant relationship was found between psychological control and externalizing problems in Barber, Olsen & Shagle's study. This was also valid for the relationship between behavioral control and internalizing problems (Barber et al., 1994). But, it was found that psychological control led to internalizing problems such as loneliness, confusion and depression whereas behavioral control led to externalizing problems such as drug addiction and swearing (Barber et al., 1994). Galambos, Barker, and Almeida (2003) found that children of parents who exercised high levels of psychological control and high levels of behavioral control simultaneously, displayed high levels of externalizing problems.

High levels of psychological control with combination of high levels of behavioral control was related to increased externalizing behaviors whereas high levels of behavioral control with low levels of psychological control decreased the externalizing behaviors of children (Aunola & Nurmi, 2005). In addition, in their studies, Aunola and Nurmi (2005) found that when mothers imposed high levels of psychological control, although it was used in combination with high affection, children displayed high externalizing problems. This unexpected finding, that affection did not have a buffering effect, was explained by the fact that when these two different ways of disciplining (guilt induction vs. affection) were used, children got confused with these inconsistent messages from their parents (Aunola & Nurmi, 2005).

Physical control such as yelling at the child or spanking the child is another type of parental control. Although physical control seems to promote child's compliance and prevent misbehaviors, this method of control is only temporarily effective. Physical control usually leads to aggressive and defiant behaviors in children and do not foster desirable behaviors in the long-term, because children are only forced to do a desirable behavior. Children are not involved in decision making process about their own behaviors and are not allowed to express their feelings and thoughts. That is why, they can not internalize the reason to obey the rules (Kuczynski, 1984; Strassberg, Dodge, Petit, & Bates, 1994).

2.4.2 Direct influence of culture on preferences for control

When the levels of control were compared, it was found that Chinese mothers used more behavioral control and were more protective towards their children than Western mothers (Chen et al., 2001). This can be explained by the differences in values of individualistic and collectivistic cultures in child socialization. Collectivistic cultures such as China emphasize interdependence where the children are expected to comply with the rules and norms of the society. On the other hand, individualistic cultures emphasize independence, autonomy development and self-reliance, thus the parents who hold individualistic values emphasize reasoning, induction and verbal give- and- take more than those who hold collectivistic values (Rudy & Grusec, 2006).

In addition, Chinese parents who are high in behavioral control perceive their parenting roles as a protector and thus try to ensure that they fulfill the role defined by their own cultural norms. Family is important in Chinese culture and the parenthood responsibilities dictate that parents discipline their children to be obedient and compliant to social rules (Wu et al., 2002). Besides, parental perception of children as incapable of making decisions of their own results in directing children's behaviors in most activities. This way of parenting can be perceived as overprotection in Western culture whereas it may be normative in China (Wu et al., 2002).

There were inconsistent results from cross-cultural studies considering psychological control. In a study conducted by Bean, Barber, and Crane (2006), no negative effect of psychological control on adjustment problems was found and more surprisingly psychological control was positively related with parental support in African American sample. In another study, it was found that in all cultures (e.g., Bangladesh, America, and Germany), not only the individualistic cultures where autonomy and independence was highly prized, psychological control had negative consequences such as depression and acting out behaviors in adolescents (Barber, Stolz, & Olsen, 2005).

The Turkish culture is also an emotionally interdependent culture, and some aspects of psychological control such as guilt and shame induction may result in different outcomes as opposed to Western cultures (Kagitcibasi, 2007). It was found that shame and guilt induction by the parents was perceived as a parental involvement and played a corrective and adaptive role. This resulted in low levels of

externalizing behaviors (Harma, 2008; Kagitcibasi, 2007). However, love withdrawal and blame had negative outcomes on children, because they were threatened by the disruption of the emotional parent child bond (Dogruyol, 2008).

Individualistic and collectivistic cultures have different approaches in child socialization. The way the parents exercise parental control and parental warmth are different, because of the necessities of their own cultural roles. That is why, the consequences of the parenting approaches on child behaviors may not be similar.

2.5 The present study

As discussed in section 2.2., parental control is not clearly defined in the literature. It is not clear to what extent parental control overlaps with and is distinct from authoritarian, authoritative, and power assertive parenting. Authoritarian parenting implies parental control, including parental rejection. However, controlling parents do not necessarily display parental rejection. In addition, the meaning attributed to parental control is less clear than the meaning attributed to parental warmth (Chen, Liu, & Li, 2000; Montazer, 2005). On the other hand, authoritative parents display high levels of parental warmth and have reasonable demands of their children. They also provide rationales for their rules and exercise the parental use of inductive reasoning (Shaffer, 2005). With this perspective of Baumrind's typologies, it is not possible to define Turkish parenting styles, because they show non-rejective patterns of parenting towards their children simultaneously with being high in restrictive patterns of parenting without the parental use of inductive reasoning. In

addition, the control/demandingness aspect of parenting also does not include the psychological control which is an important aspect of discipline strategies.

When the results of the studies are considered regarding the child outcomes, while parental control leads to negative outcomes such as conduct problems and low self-worth in children of European and North American cultures, this finding was not replicated in non-European samples (Rudy and Grusec, 2006). Kagitcibasi (1970) also found that authoritarian parenting does not lead to low levels of self-esteem, because non-rejective patterns of parenting and high control coexist in Turkey, similar to the Chinese culture.

The distinction of different types of parental control with power assertive parenting should also be considered. Behavioral control is not necessarily power assertive, because parents may exercise behavioral control simultaneously with parental use of inductive reasoning. However, physical control demands power assertive parenting to some extent (Baumrind, 1968, as cited in Bornstein, 1995; Gurland, & Grolnick 2005).

A study of parental control must first achieve conceptual clarity regarding this dimension of parenting. This conceptual work must be grounded in the literature, but must also further extant studies by: (1) synthesizing theoretical work on parental control and other associated dimensions of parenting such as warmth; and (2) by isolating the dimension of parental control from the construct of authoritarian parenting style, thus arriving at a conceptual definition that may have cross-cultural validity.

Barber (1996) suggested a definition of parental control with two components: psychological and behavioral control. Psychologically controlling parents are unresponsive to their children's emotional needs and do not encourage their children's emotional expressivity and autonomy. This type of control prevents children from forming social interactions with their peers. While some level of behavioral control was claimed to be necessary in order to decrease the externalizing and aggressive behaviors, high behavioral control leads to negative social behaviors in children (Barber, 1996; Rubin & Mills, 1990). In addition to Barber's suggestion, the third component of parental control, physical control also leads to aggressive and defiant behaviors in children due to the inability of internalization of norms and rules (Strassberg, et al., 1994). In sum, parental control, because it is associated with power assertiveness, leads to immaturity in children, socially withdrawal, low self regulation, low self management and low in use of reasoning in social interactions (Gurland, & Grolnick 2005; Olweus, 1993; Pomerantz & Ruble, 1998; Rubin, & Mills, 1990).

Parental control may be related to different outcomes in different cultures due to its differential association with parental warmth (Kagitcibasi, 1970; Parpal & Maccoby, 1985; Rudy & Grusec, 2006; Wu et al, 2002). In Deater-Deckard and Dodge's (1997) study, it was found that although the parents used high levels of punitive parenting, their children did not display aggressive behaviors because of the buffering effects of high levels of parental affection and warmth. Thus, a study of the consequences of parental control must also consider the dimension of warmth, and allow for its interaction with parental control. This approach is a promising start to

achieve models of consequences of parenting behaviors that are cross-culturally applicable. The current research adopts this approach.

Behavioral, psychological, and physical control may coexist with inductive techniques, providing a child with an opportunity to exercise decision making. In most of the previous studies, parental control was assumed to include power assertion without explanations or reasoning. The possibility of being control simultaneously with inductive techniques was not studied. This thesis examines the effect of induction alongside parental control on social behavioral outcomes. It is possible that regardless of the cultural context, children benefit from inductive techniques where parents offer reasons for control and use positive reinforcements in order to modify undesirable behaviors. If this expectation is true, power assertive parenting would lead to externalizing problems in all cultures (Chen et al., 2001).

2.6 Objectives of the study

This thesis has five main objectives. First, parental control (behavioral, psychological and physical control) is defined conceptually and operationally. Second, parental control is measured using observational data on structured mother-child interactions. Third, SES, a parental factor that is associated with parental control is identified. Fourth, the association of other dimensions of parenting (parental warmth and the parental use of inductive reasoning) with parental control is studied. Fifth, the association of children's socio- behavioral outcomes with parental control are investigated, accounting for other related dimensions of parenting and

family factors in order to identify the role of parental control in socio-behavioral development of children focusing on externalizing behaviors.

2.7 Conceptual framework

The conceptual definition of parental control is of dispute in extant research. Thus, further conceptual development is needed in order to achieve a theoretically and empirically sound definition. The definitions of three types of parental control used for the purpose of this thesis were given in the previous section. The extent to which these different parenting approaches are conceptually and empirically distinct are dealt with throughout the thesis.

Parental warmth is defined as the parenting behaviors where parents verbally and non-verbally display affection, positive regard, empathy, and emotional support towards their children.

Parental use of inductive reasoning is defined as the parenting behaviors that explain the reasons of rules and demands to the children, encourage reasoning and engage in verbal give- and- take with children which enable them to internalize the demands of parents.

There are family and parental factors that have indirect impacts on child outcomes. Belsky (1984) proposed a process model of the determinants of parenting where family factors such as work conditions, marital relations, and social network of parents have indirect impact on child outcomes through the mediation of parenting

approaches. Similarly, according to Guralnick's (2001) developmental systems model, patterns of parent-child interactions have mediating role on family characteristics such as SES and community network. These family characteristics such as poverty and lack of social support have adverse effects on child developmental outcomes indirectly through affecting the patterns of parent-child interactions (Guralnick, 2001).

In accordance with Belsky's and Guralnick's model of parenting, this thesis suggests a conceptual framework for mediating role of parenting approaches and parent-child interaction in relation to family factors and child developmental outcomes. It is important to examine the mediators, the parenting approaches, because one can not intervene in the family factors directly, whereas parenting behaviors may be malleable. Therefore, this thesis focuses on the independent and interactive effects of different parenting behaviors (parental control, parental warmth, and parental use of inductive reasoning), and aims to identify those parenting behaviors that may be most promising means to change socio-behavioral outcomes for children.

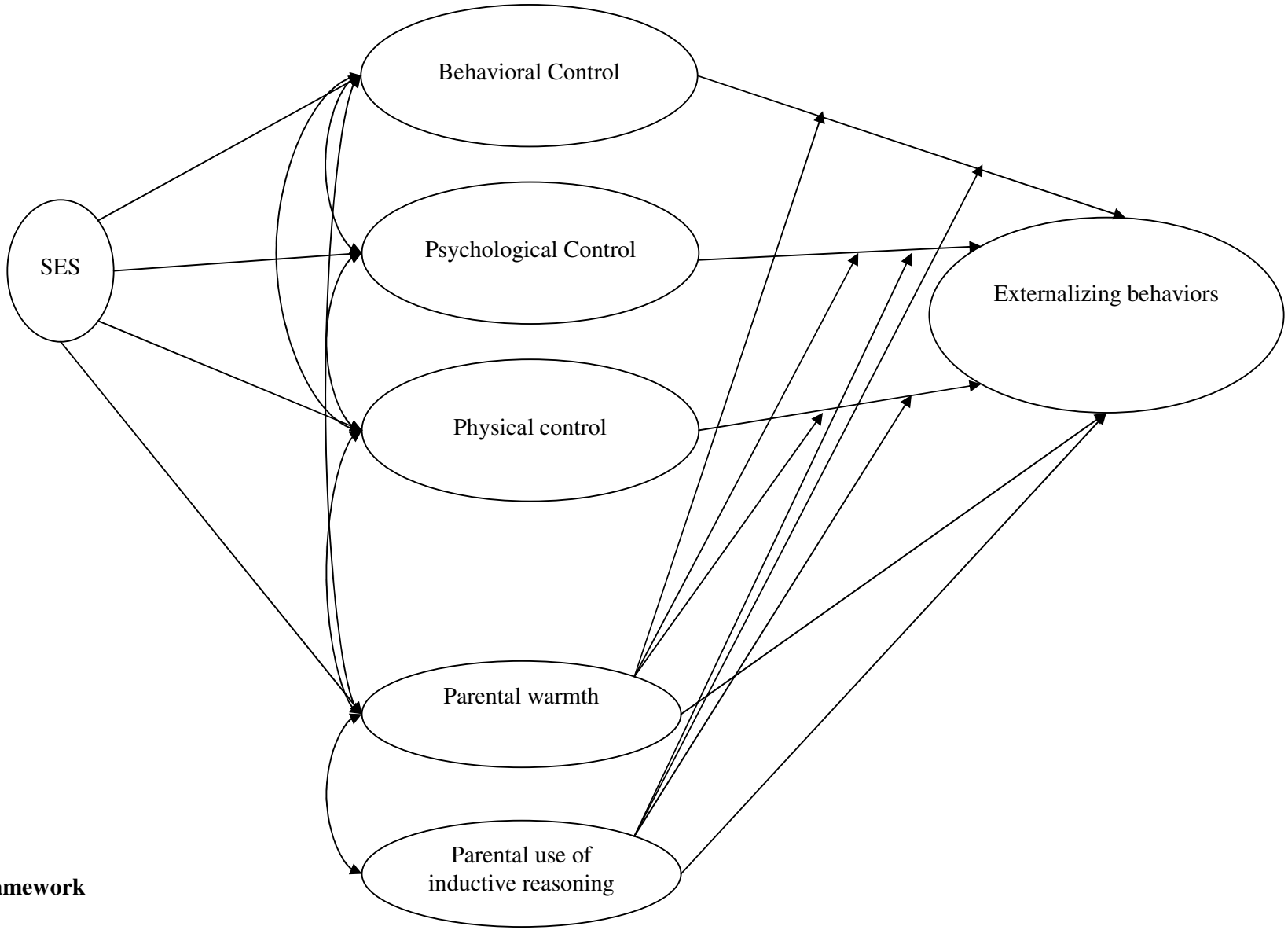

Figure 2.1
Conceptual Framework

2.8 Hypotheses

1. It was suggested that high levels of parental control (behavioral, psychological, and physical) increased externalizing behaviors in children (Barber, 1996; Aunola & Nurmi, 2005). Therefore, for this study it was expected that high levels of parental control would lead to high levels of externalizing behaviors in children.

2. Certain level of behavioral control in parenting was found to be beneficial to decrease the externalizing behaviors of children. It was found that very low levels and very high levels of behavioral control increase the externalizing behaviors in children (Barber, 1996). In accordance with literature, it was predicted that both low and high levels of behavioral control in parenting would lead to high levels of externalizing behaviors in children.

3. It was suggested that parental warmth had a buffering effect on child externalizing behaviors (Deater- Deckard & Dodge, 1997; Aunola & Nurmi, 2005). Behavioral, psychological, and physical control may be associated and may co-exist in a context of lack of warmth and support. Therefore, for this study, it was expected that parental warmth would have independent and interactive effects with parental control on child externalizing behaviors after controlling for SES.

4. Children of parents who imposed high parental control (behavioral, psychological, and physical) without the parental use of inductive reasoning were expected to have more externalizing problems than the children of parents who were high in parental control and used inductive discipline techniques after controlling for SES. A buffering effect of the parental use of inductive discipline techniques was expected for the children of parents who were high in parental control (Grolnick, 2003).

5. Previous studies suggested that due to high levels of stress and low levels of social support, low SES parents displayed more controlling behaviors than high SES parents (Bayley & Schaefer, 1960). In this study, the parents of low SES were expected to display higher levels of parental control (behavioral, psychological, and physical) than the middle and high SES parents.

Chapter 3

METHOD

3.1 Design and Procedure

Children and mothers of this study were the participants of the Study of Early Childhood Developmental Ecologies in Turkey (ECDET) planned to be a 5-year old longitudinal study. The sample of ECDET was a nationally representative sample of 1,052 children 36-47 months of age, and their mothers who were recruited from a stratified clustered sample from 24 communities in 19 provinces of Turkey. A subsample of 123 participants were randomly selected in the four largest metropolitan areas of Turkey (Istanbul, Ankara, Izmir and Adana) to participate in an observational protocol.

Interviewers screened the neighborhoods with the help of the local officials, public health clinics that served the target neighborhoods, or by door-to-door screening in order to identify eligible children in chosen districts. If they identified an eligible child, they obtained the consent of his/her usual caretaker (often the mother) to participate in the study, and they visited the home immediately. If not, they made an appointment with the usual caretaker for another day. Participants were mostly the biological mothers of target children, but they could be someone other than the biological mother if the mother was not the resident primary caretaker. In

most of these cases, the respondent was the grandmother who was the de facto mother of the child.

3.1.1 Pilot study

Prior to the field work, a pilot study was conducted with 50 participants in Istanbul from five low and middle-low SES neighborhoods. Pilot study yielded information about the feasibility of the study and its proposed protocol. The protocol, documentation, and all questionnaires were finalized in the light of the experiences with the pilot implementation and the psychometric analyses of the measures used at the pilot study.

3.1.2 Main study

ECDET data were collected through home visits that lasted 2-3 hours. Interviewers were trained either by the research team or by the supervisors who were trained by research team. 57 interviewers and 8 supervisors were trained. During training, general information about ECDET and instructions on each section of the questionnaire, observational protocols, and child assessments were presented. Training included specific information on establishing rapport with mothers and children. Training was reinforced with role play, practice, and evaluation.

In addition to the training, interviewer manuals were prepared to provide assistance in field work. The manuals provided information about the intended meaning of each item and examples of explanations. The manuals also included

information about the role of the interviewers as a visitor at the mothers' home, how to make a successful visit, information about 3 year old children's common attributes, the ideal sequence of implementation of various protocols, and how to cope with potentially problematic situations with children, mothers and other adults.

Graduate assistants also participated in the field study to observe the implementation of assessments. Furthermore, each interviewer in 24 districts was once videotaped during their implementation of both mother and child protocols. These video recordings were sent to ECDET assistants and feedback was given both to supervisors and interviewers.

Both qualitative and quantitative data collection methods were used in ECDET. Closed ended questionnaires rated on 4 and 5 point Likert scales were used to gather information from mothers about themselves and their children' behaviors. Considering that mothers could have very low levels of formal education, visual aids were used to help mothers use Likert-type rating scales. The protocol was prepared in consideration of a three year old child's attention span and the protocol was implemented alternating between mother interviews and child assessments.

The subsample of mother-child dyads who participated in the observational study were videotaped during 10 minutes of structured observation where the mother and the child were given a play-task. Three pictures of lego figures were given to the mother and the child with the instruction that the mother should help the child to replicate the configuration depicted.

3.2 Participants

The demographic characteristics of the participants are presented in Table 3.1. The sample of this study consisted of 123 mother- child dyads. Of the 123 children in observational sample, 47.2% (n = 58) were boys. Of the 123 sample mothers, 57.7 % (n=71) were elementary school or lesser degree graduates whereas 42.3 % (n=52) had higher level of schooling than elementary school. 26% of the mothers (n = 32) had low SES, 32.5% (n = 40) had middle SES, and 38.2% (n = 47) had high SES.

Table 3.1
Characteristics of the Study Sample

Characteristics	Observational sample (N=123)
Age of the study child (in months)	41.59
	(3.64)
Male study children	47.2%
Age of the study mother (in years)	29.54
	(5.68)
Mother's education level	
Not completed elementary school (%)	11.4 %
Graduated from elementary school (%)	46.3 %
Not completed high school (%)	15.4 %
Graduated from high school (%)	19.5 %
Graduated from college or higher (%)	7.3 %
Mother's SES level	
Low SES (%)	26 %
Middle SES (%)	32.5 %
High SES (%)	38.2 %
Urban origin study mother (%)	78.9 %

Note. The values are the means with the standard deviations in parenthesis.

3.3 Measures

The data of the current study were collected by both qualitative methods by recording parent-child interaction and quantitative methods by questionnaires that are administered by interviewers to participating mothers. In this section, first the qualitative measures and then the quantitative measures are presented.

3.3.1 Qualitative Measures

Observational data serve as a complementary method to quantitative measures and enable a study of parent-child interactions with an objective perspective (Robson, 2005). In this thesis, a coding system called Dyadic Parent-Child Interaction Coding System was used in order to study the parent-child interaction.

3.3.1.1 Dyadic Parent-Child Interaction Coding System

Dyadic Parent-Child Interaction Coding System (DPICS) (Robinson & Eyberg, 1981) is a behavioral observation system used to assess the quality of parent-child interaction. DPICS assesses the frequency of the verbal and physical behaviors during the social parent-child interaction. It codes 23 specific parent behaviors and 8 specific child behaviors. Parent behavior measures (e.g. direct and indirect command, praise, physical positive and negative, warning, and critical statement etc.) give information about parenting behaviors. Child behavior measures (e.g.

cry/whine/ yell, smart talk, physical negative and compliance, positive affect, etc.) capture overt defiant and prosocial behaviors.

The Turkish version of the Dyadic Parent-Child Interaction Coding System (DPICS -TR) was developed by ECDET team (Baydar, Akcinar, & Arslan, 2007) to score the videotaped interactions during a 10 minute structured observation where the mother and child play with legos to produce of specified lego figures. The original DPICS manual was translated into Turkish and the feasibility of the protocol for Turkish families was established as a part of the pilot study of ECDET. Some new parent behavior measures such as physical and emotional threat and ignoring child negative behavior were added. Some parent and child behavior measures were removed such as no opportunity and compliance, because Turkish mothers were observed to use commands so frequently that it was impossible and meaningless to identify these behavior measures which were originally intended to be coded after each of the mothers' commands.

For the present study, the data came from the main study of ECDET where the interactions between 123 mother-child dyads were coded by two coders. The inter-rater reliability of measures are 0.90 for total parent measures, 0.79 for total child measures, and 0.85 for total DPICS measures respectively (Arslan, 2009). The definitions and the examples of parent and child behavior measures used in the present study are given in Table 3.2. Behaviors coded by the DPICS were grouped to obtain four composite parental measures for the current study.

Table 3.2. Definitions and examples of DPICS parent and child behavior measures.

Category	Definition	Example
Behavioral Control		
Direct Command	Direct command is a statement which includes an order or direction and indicates an expected vocal or motor behavior from the child must be performed.	- Be careful. - Look (by pointing) - Give me the yellow lego. - Come, come, look at me (3 direct commands)
Indirect Command	Indirect command is a suggestion which is implied or stated in a question form and indicates an expected vocal or motor behavior from the child must be performed.	- Look (not pointing) - Come on. - Let's take these pieces. - Put these legos here, all right?
Grandma's Rules	Grandma's rule is a positive or negative command that indicates a positive consequence for the child will occur if the child complies.	- If you finish your picture, I will give a chocolate to you.
Warning	Warning is a command followed by a negative but natural consequence for noncompliance to a demanded behavior.	- If you don't clean up your toys, you can't go to the playground.
Psychological Control		
Negative Talk	Negative talk is a negative command which tells the child not to do something. Negative talk also includes guilt-tripping sassy, sarcastic, rude, or impudent verbalization that disapproves the child or the child's attributes, activities, products, or choices.	- No, no, no (3 negative talk) - Stop! - Do not put these pieces here. - You can not do this well. - What a shame of you ('ayıp')
Emotional Threat	Emotional threat is the negative verbal attempt to influence the emotional security of child through expressing guilt induction, love withdrawal and shame. It gives the child a message that she/he is not worth to be loved. It is not related with the natural consequences of the child's negative behaviors and does not include the intent to put in practice.	- Nobody loves you if you continue to behave like this. - I am going to huff you. - I won't be your mommy anymore.

Category	Definition	Example
Parent Ignore	Parent ignore can be described as the parents' behaviors where they do not physically or verbally participate in the activity and ignore a question or a need of the child.	- Child: Where should I put this? Mother: (no response) - Mother does not play for 15 seconds.
Physical Control		
Physical Negative-Parent	Physical negative-parent is a parent-initiated and intentional touch towards the child that inflicts pain, restrains the child, forces or/and pulls the child. Touches that co-occur with a physical intrusion also coded as physical negative-parent.	- Mother hits, spanks, slaps, shoves, or shakes child. - Mother holds child's arm.
Physical Intrusion	Physical intrusion is a parent-initiated interference with a child's ongoing activity. It is an intrusion into the child's workspace or taking over the child's activity or an object with which the child is busy with.	-Taking or attempting to take or snatch something out of the child's hand when it hasn't been offered, or without the child's permission.
Physical Threat	Physical threat is a negative verbalization which aims to physically punish a negative behavior or prevent a possible deviant behavior of the child. It is not related with the natural consequences of the child's negative behaviors. It also implies that the child will indefinitely deprived of doing that certain activity.	- Look, that woman will give you an injection. - If you act up, I will beat you. - I won't take you to the playground anymore.
Parental warmth		
Physical Positive	Physical positive is an intentional bodily touch and contact of the mother towards the child which is positive.	- Mother hug, kisses, ruffles child's hair, touches child's arm.
Parent Positive Affect	Positive affect is a verbal or nonverbal expression of enjoyment, warmth, affection or enthusiasm directed at the child.	- Mother smiles at child. - My sweet heart! - Sonny
Labeled Praise	Labeled praise is a specific verbalization that positively evaluates an activity, product, or attribute of the child.	- The way you put the lego is nice. - You did a very good job by doing this picture.

Category	Definition	Example
Unlabeled Praise	Unlabeled praise is a positive but nonspecific verbalization for the evaluation of an activity, product, or attribute of the child.	- Good. - Well done. - You did a good job.
Acknowledgment	An acknowledgment is a brief verbal response to the child's verbalization or behavior that indicates a recognition or approval of something the child has said or done, with no descriptive content.	- Yes. - OK. - All right. - Hı hı -Hıı, hımm - Sure.
Child Externalizing Behaviors		
Smart Talk	Smart talk is a rude or disrespectful verbal response directed towards the mother.	- Mother: Put this here. - You're stupid. Child: No!
Oppositional Behavior	Oppositional behavior is a disrespectful nonverbal response towards the mother's commands. It only includes active and intentional responses.	- Shrugs her/his shoulders. - Stick out her/his tongue.
Destructive Behavior	A destructive behavior includes the deviant behaviors where the child destroys, damages, or attempts to damage any object, including animals.	- Child throws blocks at the wall. - Child spits at an object.
Physical Negative-Child	A physical negative-child can be defined as a bodily attack or attempt to attack another person.	- Throwing something/spitting at anyone. - Hitting, biting, and kicking.

Composite behavioral control measure comprises the direct command, the indirect command, grandma's rules and incidences of warning. Most agreed upon definition of behavioral control was 'the attempts to control and regulate the child's behavior through rules, regulations and limit setting behaviors' (Aunola & Nurmi, 2005; Barber, 1996; Galambos, Barker & Almeida, 2003; Gurland, & Grolnick, 2005; Joussemet et al., 2008; Hasebe, Nucci & Nucci, 2004; Mills & Rubin, 1998). In accordance with this definition, in this study, behavioral control is coded by (1) direct and indirect commands and play directives (e.g. "Do that" "Let's put it here"); and (2) rules and warnings about the play behaviors (e.g. "If you do this lego you can play whatever you want", "If you do this again we won't go to the playground").

Composite psychological control score is obtained by the incidences of negative talk, emotional threat, and parent ignoring the child. Psychological control was conceptually defined as the intrusion into psychological and emotional development of the child. It was measured with the concepts which include the manipulating and exploiting the parent child bond (Aunola & Nurmi, 2005; Barber, 1996; Gurland, & Grolnick, 2005; Hart, Nelson & Robinson, 1998; Mills & Rubin, 1998; Silk et al., 2003). In the line with above definition, psychological control is measured by (1) parental attempts to influence the emotions of child through threats, that are not related to the natural consequences of the child's undesirable behaviors, with expressing guilt induction and love withdrawal (e.g. "If you do not do this I will not love you anymore", "I will get ill if you won't do this"); (2) negative talk which is a way of expressing verbal disapproval of the child that inherently includes blame and guilt-inducing statements (e.g. "No, stop doing this"); (3) critical statements include devaluating verbalizations such as insulting, blaming, and criticism of child's

character (e.g. “You could not do this properly”, “You can never sit still, can you?”); (4) cold, rejecting and unfriendly acts; and (5) nonresponsiveness to child’s activity and verbalizations.

Physical control was defined as the behaviors of physically coercive acts and physical punishment exercised by the parents in order to manage children’s behaviors in previous literature. These physically coercive parent behaviors include yelling, kicking, hitting, shouting, and using physical threats against the child (Berk, 2003; Kuczynski, 1984; Patterson, 1982; Greenwald, Bank, Reid, & Knutson, 1997; Strassberg et al., 1994). In accordance with these definitions, in the present study, composite physical control behavior measure consists of physically negative behaviors, physical intrusion, and physical threat behavior measures. In video taped coding, physical control is coded by (1) parents’ pain inflicting negative touches towards child (e.g., spanking, hitting, pinching); (2) parental behaviors that restrain, force or pull the child; (3) physical intrusions and interruptions of the mother with the child’s ongoing activity without the permission and will of the child; and (4) snatching something from the child.

Composite parental warmth behavior measure comprises physically positive behaviors, parent positive affect, labeled praise, unlabeled praise, and acknowledgment behavior measures which include verbal and non verbal means of parental acceptance and responsiveness towards the child.

Composite child externalizing behavior measures consist of smart talk, oppositional behaviors, destructive behaviors, and physically negative-child

behaviors. The incidences of crying/whining/yelling, from the original DPICS child behavior measures is not included in this study's child behavior measures. This study only aims to assess the child externalizing behavior outcomes, with the meaning of 'acting out' behaviors. The reason child cries or whines can be due to her/his distress or other internalizing problems. That is why, including this behavior measure as an externalizing behavior could pose a conceptual problem.

3.3.2 Quantitative Measures

Socioeconomic status (SES) could potentially influence parental control behaviors and child externalizing behaviors (Bayley & Schaefer, 1960, as cited in Bornstein, 1995). In order to group the mothers according to their SES, the composite SES measure was computed as a factor score based on the level of mother's and the father's education, a measure of material well-being of the family, and an estimate of the total monthly expenses of the family based on the maternal reports. The mothers with the factor scores between -.5 and .5 were included in middle SES group. The mothers with the factor scores above .5 were included in high SES and below -.5 were included in low SES group.

Throughout the current study, all scale scores from Eyberg Child Behavior Inventory are referred to with an ECBI prefix, whereas Parenting Questionnaire scores are referred to with a PQ prefix, Parenting Goals Questionnaire scores are referred to with a PGQ prefix, and Home Observation for Measurement of the Environment scores are referred to with a HOME prefix. All the quantitative measures are based on mother reports except some items of the HOME scales. More

than half of the HOME inventory is based on observation, but the items that can not be measured by observation are obtained from parent reports.

3.3.2.1 Eyberg Child Behavior Inventory-TR

Eyberg Child Behavior Inventory (ECBI, Eyberg and Robinson, 1983) measures behavioral problems in children between the ages of 2 and 17. It consists of 36 items that are first rated by parents with respect to their frequency (Intensity Scale), and next regarding whether they perceive each behavior as a problem (Problem Scale). The internal reliability of these scales were found to be 0.95 for total intensity and 0.86 for total problem scales (Robinson, Eyberg & Ross, 1980). The ECBI has an established criterion validity based on the Child Behavior Checklist (CBCL), a widely used measure to assess the externalizing behavior problems of children (Boggs, Eyberg & Reynolds, 1990).

The Turkish version of the ECBI in was adapted by Baydar et al. (2007). It includes 36 items and maintains the original structure except that the frequencies of behaviors are rated on 5 point Likert scales instead of 7. The items allow the estimation of a total behavior problem intensity scale as well as 3 intensity subscales: aggression intensity (e.g., “Fights with the peers”), demand for attention intensity (e.g., “Whines”), and conduct problems intensity (e.g., “Argues with the parents about rules.”).

The ECBI-TR items are also used to generate “problem” scales. In order to create the problem scores, each item score representing the frequency is weighted by the corresponding problem score coded 2 if the mother declared the behavior a

"problem" and 1 if the mother did not consider that behavior a problem (Baydar et al., 2007).

In the current study, the adapted version of the ECBI was used (Baydar et al., 2007). The analysis of the data gathered from 1,052 mothers, the participants of the main study of ECDET. The internal reliability of ECBI-TR scales are 0.93, 0.80, 0.63, and 0.88 for total intensity scale, aggression intensity scale, demand for attention intensity scale, and conduct problems intensity scale respectively (Baydar et al., 2008). Cronbach's alpha values for the problem scales are 0.94 for total problem scale; 0.83 for aggression problem scale; 0.69 for demand for attention problem scale and 0.90 for conduct problems problem scale. In general, intensity scale scores are highly correlated with the problem scale scores (coefficients range between 0.90 - 0.95) (Baydar et al., 2008).

3.3.2.2 Parenting Questionnaire- TR

The Parenting Questionnaire (PQ, Sanson, 1994) is a self-report measure for parenting practices. It consists of 30 items where parents rate the frequency of their own parenting behaviors. The internal consistencies of the original PQ were found to be 0.75, 0.91, 0.76, and 0.80 for the demand for compliance, punishment, parental warmth, and reasoning subscales respectively (Sanson, 1994).

The Turkish version of the PQ was adapted by Baydar et al. (2007). PQ-TR includes 30 items and maintains the original structure that the frequencies of behaviors are rated on 5 point Likert scales. The items allow the estimation of 4

subscales: obedience demanding behavior (e.g., "I expect unquestioning obedience from my child."), punishment (e.g., "When my child misbehaves, I use physical punishment."), parental warmth (e.g., "There are moments in which my child and I are so close."), and inductive reasoning (e.g., "I discuss reasons for rules with my child.").

In the present study, the adapted version of PQ was used (Baydar et al., 2007). The analysis of the data gathered from the main study of ECDET. The Cronbach's alpha values are 0.67, 0.82, 0.88, and 0.82 for obedience demanding behavior scale, punishment scale, parental warmth scale, and inductive reasoning scale respectively (Baydar et al., 2008).

3.3.2.3 Parenting Goals Questionnaire –TR

The Parenting Goals Questionnaire (PGQ, Schaefer, Edgerton, 1985) measures mothers' and other family members' attitudes to child rearing and parenting. It consists of 18 items about the importance of a specified parenting goal that are rated by the parents.

The Turkish version of Parenting Goals Questionnaire (PGQ-TR) was adapted by Kumru, Sayıl, Yağmurlu (2006) and it was revised by Baydar et al., 2007..PGQ-TR includes 11 items and maintains the original structure that the frequencies of behaviors are rated on 4 point Likert scales. The items allow the estimation of 2 parenting goals subscales: social skills goals (e.g. "Be able to get along with people"), compliance goals (e.g. "Be quiet when asked").

In the present study, the adapted version of PGQ was used (Baydar et al., 2007). The analysis of the data gathered from the main study of ECDET. The Cronbach's alpha values are 0.88 and 0.86 for social skills goals and compliance goals scale respectively (Baydar et al., 2008).

3.3.2.4 Home Observation for Measurement of the Environment (HOME) –TR

Home Observation for Measurement of the Environment (HOME, Bradley and Caldwell, 1984) measures the effects of environment on child development. This inventory aims to measure the factors that affect the child development in the home environment by systematic observation (Bradley, 1981; Bradley, & Caldwell, 1979). Although the original inventory based on observations and unstructured interviews, almost in all implementations with large samples, observations and structured interviews were used. The original HOME consists of 55 items for 3 year old children.

The Turkish version of HOME was adapted by Baydar & Bekar (2007). It includes 52 items and due to ease in administration, interviewer training, and coding, it was constructed as a structured and closed- ended interview with some observational items. The content of the items was adapted according to the living conditions of Turkish children. The items allow the estimation of 7 subscales: learning materials (e.g., "Child has toys which teach colors, sizes, and shapes"), language stimulation (e.g., "Parent teaches child simple verbal manners: please, thank you, I'm sorry"), physical environment (e.g., "Building appears safe"), responsivity (e.g., "Mother holds child close at least 5 minutes during the visit."),

academic stimulation (e.g., “Do you help your child to learn the name of colors?”), experience variety (e.g., “Did you go to a trip to somewhere else (to a prairie, village, town or city) with your child during last year?”), and use of harsh discipline to the child (e.g., “Mother conversed with the child in a harsh manner, scolded at or derogated him more than once during visit”) (Baydar & Bekar, 2007).

In the current study, the adapted version of HOME-TR was used (Baydar & Bekar, 2007). The analysis of the data gathered from the main study of ECDET. The Cronbach’s alpha values are 0.91, 0.84, 0.72, 0.82, 0.82, 0.55, 0.61 for learning materials, language stimulation, physical environment, responsivity, academic stimulation, experience variety, use of harsh discipline to the child respectively (Baydar et al., 2008).

Chapter 4

RESULTS

The findings of the current study are presented in four sections: Descriptive and bivariate analyses for parent and child behavior measures; exploratory analyses to investigate the patterns of parental control among Turkish mothers and the differences in child externalizing behaviors by patterns of parental control; analyses to explore the association of self reported with observed parenting behaviors; and analyses to understand the independent and interactive effects of different types of parental control on child outcomes.

4.1. Descriptive and bivariate analyses

In this section, first the correlations between child and parenting measures of observational data are presented. Then, the correlations between observational and mother reported data for the child and parenting measures are provided. The non parametric correlation, Spearman rank correlation, yields robust estimates when a distribution is highly skewed (Siegel, 1956). In this thesis, because the observational data were count data that were skewed, Spearman rank correlations were used to estimate associations.

4.1.1. Correlations between DPICS parenting measures

Correlations among the composite parental control measures and the correlations of each parental control dimension and parental warmth obtained from Dyadic Parent Child Interaction Coding System (DPICS) were calculated in order to reveal the structure of associations among these constructs. The correlations of DPICS composite parenting measures (behavioral, psychological, physical control, and parental warmth) are presented in Table 4.1. The table shows that DPICS composite parental control measures were associated, but these measures did not overlap which indicated that three types of parental control measures also seem to differ from each other. That is why, the independent effects of each three types of parental control were also examined in the following sections (see section 4.4.1). The results of the correlational analysis showed that all forms of parental control were positively associated. The positive associations between behavioral, psychological and physical control suggested that mothers who exercised one form of control also tended to exercise other forms of control. Thus, Turkish mothers did not have a consistent preference for one type of control, favoring that approach over other types of control.

Table 4.1.
Correlations between composite DPICS parenting measures

	2	3	4
1. Behavioral Control	.42**	.27**	.50**
2. Psychological Control		.45**	.27**
3. Physical Control			-.04
4. Parental Warmth			

Note. * $p < .05$, ** $p < .01$

Parental warmth was moderately and positively associated with psychological control (r_s = *.27, p<.01*); and uncorrelated with physical control (r_s =- *.04, n.s.*). A strong association was found between parental warmth and behavioral control (r_s = *.50, p<.01*). The correlations among parental warmth and control dimensions indicated that warmth co-occurred with behavioral and to some extent psychological control, but not with physical control.

The correlations among DPICS measures that constituted the composite behavioral control measure are presented in Table 4.2. The positive associations among DPICS behavioral control measures ranged from substantial to modest correlations. The numbers of indirect commands were substantially and positively associated with the number of direct commands (r_s = *.40, p<.01*) and the number of grandma's rules (r_s = *.35, p<.01*).

Table 4.2.
Correlations between DPICS behavioral control measures

	Mean (SD)	2	3	4
1.Direct Commands	10.87 (4.10)	.40**	.14	.05
2.Indirect Commands	3.57 (2.01)		.35**	.11
3.Grandma'sRules	0.05 (0.09)			.17
4.Warnings	0.03 (0.07)			
Total	14.52 (5.36)			

Note. * p< .05, ** p<.01
DPICS scores are the number of behavior occurrences per minute.

The correlations among DPICS measures that constituted the composite psychological control measure were calculated, but no significant associations were

found. The correlations between psychological control measures ranged from r_s = -.03 to r_s = .03 as shown in Table 4.3.

Table 4.3.
Correlations between DPICS psychological control measures

	Mean (SD)	2	3
1.Incidences of Negative Talk	2.62 (1.56)	.03	-.03
2.Emotional Threats	0.01 (0.04)		.01
3. Incidences of Parent Ignore	0.21 (0.24)		
Total	2.80 (1.47)		

Note. DPICS scores are the number of behavior occurrences per minute.

The correlations among DPICS measures that constituted the composite physical control measure are presented in Table 4.4. The number of physically negative behaviors was strongly and positively associated with the number of physical intrusions (r_s = *.82, p<.01*); and modestly and positively associated with the number of physical threats (r_s = *.27, p<.01*).

Table 4.4.
Correlations between DPICS physical control measures

	Mean (SD)	2	3
1. Physically Negative Behaviors	0.48 (0.50)	.82**	.27**
2.Physical Intrusions	0.95 (0.64)		.13
3.Physical Threats	0.03 (0.07)		
Total	1.45 (1.08)		

Note. * *p*< .05, ** *p*<.01
DPICS scores are the number of behavior occurrences per minute.

Lastly, the correlations among DPICS measures that constituted the composite parental warmth measure are presented in Table 4.5. The table points to a substantial and positive association between the number of occurrences of parent positive affect and the number of unlabeled praises ($r_s = .41, p<.01$), moderate and positive association between the number of unlabeled praises and the number of acknowledgments ($r_s = .34, p<.01$).

Table 4.5.
Correlations between DPICS parental warmth measures

	Mean (SD)	2	3	4	5
1. Physically Positive Behaviors	0.04 (0.07)	.22*	-.04	.19*	.07
2. Incidences of Parent Positive Affect	1.96 (1.60)		.00	.41**	.18
3. Labeled Praises	0.01 (0.03)			.08	.07
4. Unlabeled Praises	0.68 (0.73)				.34**
5. Acknowledgments	2.23 (1.33)				
Total	4.91 (2.69)				

Note. * $p< .05$, ** $p<.01$
DPICS scores are the number of behavior occurrences per minute.

4.1.2. Correlations between observed child behavior measures and maternally reported child behavior measures

ECBI which was a maternally reported child externalizing behavior scale consisted of two parts; ECBI intensity and ECBI problems scales. There was a strong correlation between ECBI total intensity and ECBI total problem scores ($r = .95, p<.01$). This strong association suggested that there was a consistency in parents' reports about their children's problem behaviors and their perceptions of these behaviors as problematic. Correlations among ECBI intensity scales are presented in

Table 4.6. ECBI total intensity scores were strongly associated with ECBI aggression scores ($r = .90, p<.01$) and ECBI conduct problems scores ($r = .97, p<.01$). These strong associations indicated that, only one of the scale scores could be used in the rest of the analyses, to preserve parsimony. Only the results pertaining to the ECBI total intensity scores are presented here.

Table 4.6.
Correlations between ECBI intensity scales of child total externalizing behavior scores

	ECBI total intensity score
ECBI aggression	.90**
ECBI conduct problems	.97**

Note. ** $p<.01$

Child externalizing behaviors were measured by both maternally reported data (ECBI) and observational data (DPICS). The reason to examine child externalizing behaviors with both methods was that DPICS could provide situational information about child externalizing behaviors specific to that observation, whereas ECBI could provide information of general behavior tendencies of children. That is why, there may be differences in the way ECBI and DPICS scores of child externalizing behaviors were influenced by parental control. Correlations between DPICS child behavior measures derived from observational data and ECBI child behaviors derived from maternally reported data were calculated in order to show that mother reported and the observational data may provide related but distinct pieces of information. Significant and positive correlation was found between DPICS composite child measures and ECBI total intensity measures. DPICS total externalizing behavior problem score was moderately correlated with ECBI total intensity scores ($r_s = .23, p<.05$).

4.1.3. Correlations between composite parental control and child externalizing behavior measures

Additional correlation analyses were conducted in order to explore the association between types of parental control and child externalizing behaviors. Correlations between the composite parental control scores obtained from DPICS and total child externalizing behavior scores obtained from both DPICS and ECBI were calculated. The results are presented in Table 4.7. Only psychological control was equally associated with both maternally reported and observed measures.

Table 4.7.
Correlations between parental control dimensions and child externalizing behaviors

	DPICS total externalizing score	ECBI total intensity score
Behavioral Control	.13	.28**
Psychological Control	.18*	.23*
Physical Control	.20*	.10
Parental Warmth	-.04	.20*

Note. * $p < .05$, ** $p < .01$.

4.1.4. Association of SES with parental control and parental warmth

In previous studies, SES was found to be related to parental control and parental warmth. Thus, it was included in the models while exploring the independent and interactive effects of parental control on child externalizing behaviors. The correlations among the composite SES measure with parental control measures and parental warmth are given in Table 4.8. The composite SES measure

was moderately and negatively associated with the three parental control measures, indicating that high SES mothers exercised lower levels of control than low SES mothers. The positive association between SES and parental warmth revealed that high SES mothers showed higher levels of parental warmth towards their children.

Table 4.8.
Correlations among SES and parental control and parental warmth

	Behavioral Control	Psychological Control	Physical Control	Parental Warmth
SES	-.265**	-.321**	-.340**	.307**

Note. ** p<.01

4.2. Exploratory analyses of patterns of use of control among Turkish mothers

The composite parental control measures were positively associated (see section 4.1.1). This result indicated that when a mother exercised one type of control, she also tended to exercise the other types of control as well. Three types of control seemed to indicate an underlying single dimension representing a preference for control. Thus, one way of studying the effects of parental control in the Turkish culture was by investigating the influence of the overall level of parental control among the mothers of 3-year old children, rather than focusing on the effects of a specific type of parental control. However, while correlational analyses indicated an overall association of different types of control, it was possible that there existed groups of mothers with certain hierarchies of types of control or minority groups of mothers who preferred one type of control over other types. In order to investigate these possibilities, cluster analyses were conducted.

4.2.1. Cluster analyses and characteristic control patterns of mothers

The cluster analyses identified groups of mothers who were similar in the relative levels of use of different types of control. In other words, clusters of mothers were identified that had a high level of similarity within the cluster in terms of their use of control, but were dissimilar from other clusters. While the cluster analyses could potentially identify groups of parents who had distinct preferences for certain patterns of control, it only revealed three groups that were distinguished by their *levels* of control but not by their characteristic *patterns* of use of the three types of control. These three clusters consisted of mothers who imposed a low level of behavioral, psychological, and physical control (19.5 % of mothers); an average level of control (48 % of mothers); and a high level of control (32.5 % of mothers). The means and the standard deviations of parental control measures for the three clusters are provided in Table 4.9. Bonferroni corrections were applied when testing the differences between each pair of clusters. The results indicated group differences in behavioral and psychological control, but not in physical control. In conclusion, cluster analyses results supported the results of the correlation analyses, indicating that if a mother displayed high control in one dimension, e.g. behavioral control, she also exercised high control in other dimensions, (i.e. psychological and physical control).

Table 4.9.
Means and standard deviations of parental control dimensions obtained from cluster analyses

Control Dimensions	Low control (N= 24)	Average control (N= 59)	High control (N= 40)	*F*	*p*
Behavioral Control	7.39[a] (1.86)	13.24[b] (1.64)	20.69[c] (3.31)	257.2	.00
Psychological Control	2.13[a] (1.31)	2.56[b] (1.28)	3.56[c] (1.56)	9.7	.00
Physical Control	1.06 (0.75)	1.44 (1.20)	1.71 (1.02)	2.8	.07

Note. The values are the means with the standard deviations in parenthesis.
a,b,c indicate a significant difference of means, based on post-hoc comparisons.
DPICS scores are the number of behavior occurrences per minute.

4.2.2. Association of patterns of parental control with parental warmth

Analyses presented above showed that parental warmth was associated with parental control (see section 4.1.1). Thus, descriptive analyses were conducted in order to understand how parental warmth was distributed across the parental control clusters. The means and the standard deviations of parental warmth for the three clusters are given in Table 4.10. Results showed that the three control groups were significantly differentiated by parental warmth and mothers who exercised high control also displayed high warmth towards their children.

Table 4.10.
Means and standard deviations of parental warmth obtained from cluster analyses

	Low control (N= 24)	Average control (N= 59)	High control (N= 40)	*F*	*p*
Parental Warmth	2.95[a] (2.14)	4.55[b] (1.93)	6.61[c] (2.98)	19.28	.00

Note. The values are the means with the standard deviations in parenthesis.
a,b,c indicate a significant difference of means, based on post-hoc comparisons.
DPICS scores are the number of behavior occurrences per minute.

4.2.3. Differences in externalizing problems of children by patterns of parental control

The three control groups obtained from the cluster analyses did not predict differences in the composite score of observational child behavior outcomes measured by DPICS. The control groups also did not predict differences in the child externalizing behavior measures derived from DPICS (smart talk, oppositional behavior, destructive behaviors, and physically negative behaviors).

The three different control clusters had comparable scores for the maternal perception of child externalizing behaviors. Group comparisons with Bonferroni corrections showed that there was a significant difference in low and high control groups with respect to ECBI total intensity scores. The results are summarized in Table 4.11.

Table 4.11.
Means and standard deviations of each externalizing behavior scores for three control groups

	Low control (N= 24)	Average control (N= 59)	High control (N= 40)	*F*	*p*
DPICS smart talks	0.39 (0.59)	0.41 (0.55)	0.45 (0.57)	.10	.90
DPICS oppositional behaviors	0.01 (0.16)	0.12 (0.20)	0.15 (0.21)	.63	.53
DPICS destructive behaviors	0.02 (0.05)	0.02 (0.06)	0.03 (0.09)	.70	.50
DPICS physically negative behaviors	0.07 (0.16)	0.03 (0.09)	0.07 (0.15)	1.73	.18
DPICS total externalizing behaviors	0.56 (0.75)	0.56 (0.68)	0.67 (0.69)	.35	.70
ECBI total intensity	28.2^{a} (15.7)	34.2^{ab} (15.8)	40.9^{b} (20.3)	4.18	.02

Note. The values are the means with the standard deviations in parenthesis.
a,b indicate a significant difference of means, based on post-hoc comparisons.
DPICS scores are the number of behavior occurrences per minute.

4.2.4. Direct and moderated effects of patterns of parental control on externalizing behaviors

The effects of parenting factors (the observed parental control, the observed parental warmth, and the maternally reported use of inductive reasoning) on child externalizing problems were investigated. The observed parental control score was derived from the measure of parental control clusters. Parental warmth was categorized into three groups in order to conduct ANOVA. Parents who displayed parental warmth as 1 SD below the mean were categorized to low parental warmth group and parents with parental warmth of 1 SD above the mean were grouped as parents who displayed high parental warmth. Descriptive analyses for parental warmth with respect to three types of parental control indicated that mothers used

parental control in the context of parental warmth. The results were given in Table 4.12.

Table 4.12
Means and standard deviations of parental warmth for three parental control

	Low Warmth	Average Warmth	High Warmth
Behavioral Control	10.38	13.95	17.34
	(4.67)	(4.39)	(5.17)
Psychological Control	2.44	2.57	3.26
	(1.41)	(1.41)	(1.49)
Physical Control	1.88	1.21	1.51
	(1.19)	(.95)	(1.11)

Note. The values are the means with the standard deviations in parenthesis. DPICS scores are the number of behavior occurrences per minute.

Analyses of variance were conducted to understand the effect of patterns of parental control, parental warmth, and parental use of inductive reasoning on observed child externalizing behaviors in the structured situation (DPICS). The independent and interactive effects of parental control patterns and parental warmth on observed child behaviors were explored. ANOVA results revealed no interaction effect between patterns of parental control and parental warmth in predicting the observed child externalizing behaviors, $F(2, 116) = .3$, $p = .44$. The results are given in Table 4.13.

Table 4.13.
The results of the ANOVA for predicting DPICS externalizing scores

	F	df	p
Patterns of parental control	0.2	2	.84
Parental warmth	4.9	2	.03
Parental use of inductive reasoning	0.3	1	.77
Patterns of parental control X Parental warmth	0.3	4	.44

Note. R^2=.049

The findings of analyses of variance, conducted to investigate the effects of parenting factors, suggested significant effects of observed parental control measured by DPICS and maternally reported parental use of inductive reasoning on the children's externalizing problems measured by ECBI total intensity scores. In particular, a large effect of observed parental control and maternally reported parental use of inductive reasoning was found on ECBI total intensity scores $F(1, 116) = 8.3$, $p = .00$ and $F(1, 116) = 2.4$, $p = .01$, respectively. Moreover, the interaction effect of parental control with parental warmth was also found to be significant $F(4, 116) = 6.2$, $p = .00$. The joint effect of parental control and parental warmth indicated that among the mothers who exercised high control, children displayed higher externalizing behaviors when their mothers showed low levels of parental warmth than average and high levels of warmth (see Figure 4.1). In other words, parental warmth moderated the negative effects of parental control only when the level of control was high. These three parenting factors, parental control, parental warmth, and parental use of inductive reasoning accounted for 21% of the variance in maternal reports of child externalizing behaviors. The results are given in Table 4.14.

Table 4.14.

The results of the ANOVA predicting the ECBI total intensity scores

	F	df	p
Patterns of parental control	8.0	2	.00
Parental warmth	2.4	2	.12
Parental use of inductive reasoning	8.3	1	.01
Patterns of parental control X Parental warmth	6.2	4	.00

Note. R^2=.211

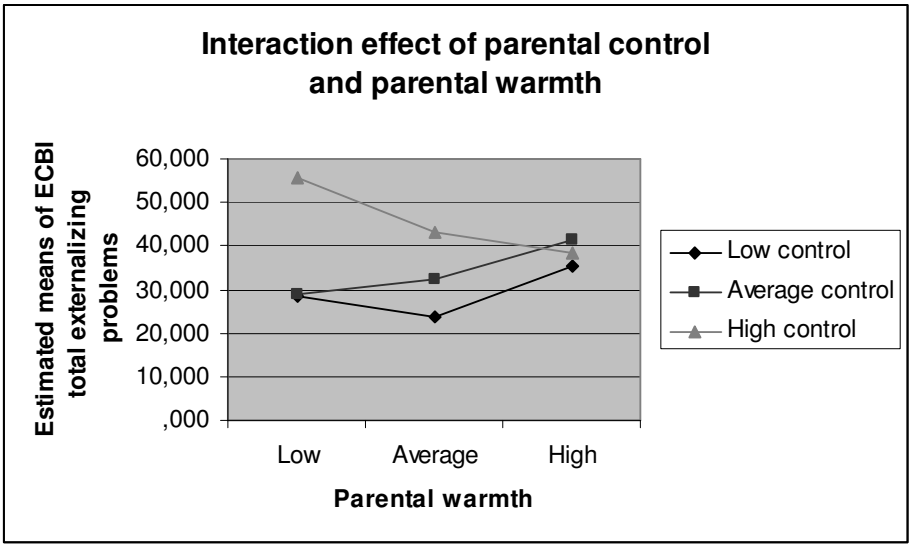

Figure 4.1 Interaction effect of parental control and parental warmth

Parents may affect the child behaviors, whereas the child's behaviors may also affect the way the parents respond to their children (Rutter, 2005). So, there was a possibility that child externalizing behaviors could be influencing parental behaviors. In other words, earlier child behaviors could influence both current child behaviors and current mother behaviors. Further analyses were conducted to explore this possibility by controlling the maternally reported temperament of the child in the ANOVA. The results are presented in Table 4.15.

Because longitudinal data were not available, the direction of causality cannot be empirically established. However, when the maternal reports of reactivity and persistence scores indicating difficult child temperament were included in the model, parental control still influenced the child externalizing problems significantly. Thus, it was likely that there existed a causal link that operated from parental control to child externalizing problems. All variables, parental control, parental warmth, parental use of inductive reasoning and maternal reports of child temperament,

accounted for 46% of the variance in maternal reports of child externalizing behaviors, which was the twice that of the previous analysis (see Table 4.13). The results of the total variance explained showed that child temperament was very strongly associated with maternal reports of child externalizing behaviors.

Table 4.15. The *results of the ANOVA including child persistence and reactivity in predicting the ECBI total intensity scores*

	F	df	p
Patterns of parental control	5.6	2	.01
Parental warmth	6.1	2	.02
Parental use of inductive reasoning	4.3	1	.04
Child reactivity	26.8	1	.00
Child persistence	17.9	1	.00
Patterns of parental control X Parental warmth	5.3	4	.01

Note. R^2=.462

4.3. The relation between the observed parental control and the self reported parenting measures

Self reported data and observed data may provide related pieces of information and complement each other. Self reported data could be used to indirectly measure parental behaviors where the data are collected relatively quickly and at a low cost from large samples (Gay & Airasian, 2003). Thus, it would be beneficial to show that self reported parenting data could be used to assess parental control using data from a sample when both observational and self report data were available, such as the one available for the current study. In order to infer whether

self reported parenting measures could be used to predict the observed parental control measures, correlational and regression analyses were conducted.

The results of the correlations between DPICS parental control measures and self reported parenting measures are given in Table 4.16. The results indicated that few of the self reported measures were significantly associated with observed parenting control.

Table 4.16
Correlations between observed DPICS and parent reported parenting scores

	Behavioral control	Psychological control	Physical control	Parental warmth
PGQ Compliance goals	.03	-.04	-.07	.08
PQ Obedience demanding	.09	.17	.21*	.03
PQ Punishment	.18*	.10	.01	-.01
PQ Parental warmth	-.13	-.01	-.15	.13
PQ Inductive reasoning	-.10	-.11	-.21*	.15
HOME Responsivity	-.13	-.21*	-.11	.01
HOME Punishment	.04	.11	.19*	-.07

Note. * $p < .05$.

Regression analyses were conducted where HOME and PQ scales were independent variables and the three types of parental control (behavioral, psychological, and physical) were the dependent variables. PQ scales (PQ obedience demanding, PQ punishment, PQ parental warmth, and PQ inductive reasoning) and HOME scales (HOME learning materials, HOME language stimulation, HOME physical environment, HOME responsivity, HOME academic stimulation, HOME use of harsh discipline to the child, HOME experience variety) were used as self reported parenting measures in this study. Only two self reported parenting measures of PQ and HOME accounted for the parental control in the structured situation. These were PQ obedience demanding and HOME learning materials subscales.

While PQ obedience demanding was a positive predictor, HOME learning materials negatively predicted the observed parental control behaviors. The results of the regression analyses revealed that behavioral and psychological control could be predicted by only HOME learning materials accounted for the 8 % and 12 % of the total variance for the behavioral and psychological control respectively and physical control could be predicted by HOME learning and PQ obedience demanding accounted for the 17 % of the total variance.

The associations between observed and maternal reports of parenting variables were weak (between 0.01 and 0.21). It was not possible to predict observed parental measures with these correlation coefficients. The results of regression analyses implied that only PQ obedience demanding and HOME learning materials scales could be used to approximate the observed parental control. Other self reported parenting measures could not be used to predict the observed parental control measures which suggested that self reported parenting data could not be used to assess the parental control in this study.

4.4. Independent and interactive effects of different types of parental control on externalizing behaviors

Although the cluster analyses indicated that three types of control were used together among the Turkish mothers, the previous literature suggested that different types of parental control operated independently to affect the child outcomes. Regression analyses were conducted in order to understand the independent and

interactive effects of different types of parental control on child externalizing behaviors.

4.4.1. Independent effects of the three types of parental control on observed child externalizing behaviors

Independent effects of behavioral control on observed child externalizing behaviors were studied by regression analyses. The square term of behavioral control was calculated in order to detect non-linear effects of behavioral control on child externalizing behaviors. Regression analyses showed that there was a U-shaped association between behavioral control and observed child externalizing behaviors. High and low levels of behavioral control exercised by the mothers were linked to high levels of externalizing behaviors in children. The effect size of the squared term of behavioral control did not change and the squared term of behavioral control was still significant in predicting the observed child externalizing behaviors, when other dimensions of control and parental warmth were entered in the model after controlling for SES. The results are shown in Table 4.17 and Figure 4.2. The figure showed that there was an optimum level of behavioral control that was necessary to decrease the externalizing behaviors in children. The number of externalizing behaviors per minute in children decreased when the mothers exercised between 11 and 17 of verbal behavioral control attempts per minute. Approximately 44% of Turkish mothers were found to be at that level where it was considered optimum levels of exercising behavioral control.

Table 4.17
The results of the hierarchical regression model predicting DPICS child externalizing problems with parenting measures measured by observational data

Variables	Step 1	Step 2	Step 3	Step 4
SES	-.02	-.01	.03	.05
Behavioral control		-.12*	-.13*	-.10
Square of behavioral control		.00**	.00**	.00*
Psychological control			.01	.02
Physical control			.11	.09
Parental warmth				-.06*

Note. * $p < .05$, ** $p < .01$; $R^2 = 0.13$
$\Delta R^2 = .001$ for Step1; .065* for Step2; .027 for Step3; and .033* for Step 4
The values are unstandardized coefficients.

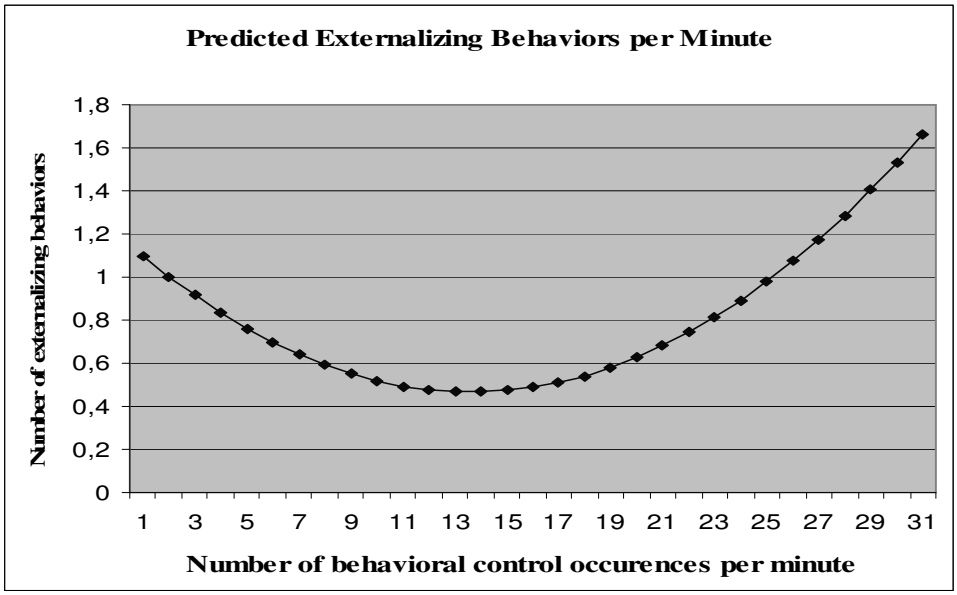

Figure 4.2 Non-linear effects of behavioral control on observed child externalizing behaviors

The same regression analyses was conducted with psychological and physical control in order to explore whether there were nonlinear effects in predicting the observed child externalizing behaviors. The regression analyses showed that there

were no quadratic effects of psychological control (B = -.013, p = .58) and physical control (B = -.029, p = .55) on observed child externalizing behaviors.

4.4.2. Interactive effects of three types of parental control with parental warmth on observed child externalizing behaviors

Parental warmth was found to have an interaction effect with the patterns of parental control on the child externalizing behaviors (see section 4.2.4). Therefore, the interaction effect of parental warmth with each of the three types of parental control on child externalizing behaviors was examined using regression analyses. No interaction effect of parental warmth was found with behavioral (B = -.001, p = .07), psychological (B = -.018, p = .21) and physical control (B = -.023, p = .30) on observed child externalizing behaviors (The values are unstandardized coefficients).

4.4.3. Interactive effects of three types of parental control with parental warmth on maternally reported child externalizing behaviors

Interactive effects of three types of control (behavioral, psychological, and physical) on maternally reported ECBI externalizing scores were analyzed. No interaction effect of parental warmth with physical control was found on maternally reported child externalizing behaviors (B = -.983, p = .09). Significant interaction effect of parental warmth with behavioral (B = -.388, p = .00) and psychological control (B = -.925, p = .01) was found for the maternally reported child outcomes after controlling for SES (The values are unstandardized coefficients). The results are shown in Table 4.18.

Table 4.18
The results of the hierarchical regression model of the interaction effect of parental warmth with parental control predicting ECBI child externalizing problems

Outcomes	Coefficients	p
Behavioral control X parental warmth	-0.39 (-1.35)	.002
Psychological control X parental warmth	-0.93 (-0.69)	.021
Physical control X parental warmth	-0.98 (-.41)	.094

Note. The values are unstandardized coefficients and standardized coefficients in parentheses.

The interaction effects of parental warmth with behavioral and psychological control on ECBI total intensity score of child externalizing behaviors are graphed below.

The results showed that among the parents who exercised high levels of behavioral and psychological control children displayed higher externalizing behaviors when their mothers showed low levels of parental warmth than medium and high levels of warmth (see Figure 4.3 and 4.4). On average, mothers who imposed more than 20 verbal behavioral control attempts were considered to be high in behavioral control (see Table 4.9). The interaction effect of parental warmth with behavioral control indicated that children of these behaviorally high control mothers displayed lower levels of externalizing behaviors if the mothers were also high in parental warmth. However, parental warmth did not make any difference in child externalizing behaviors when the mothers exercised optimum levels of behavioral control.

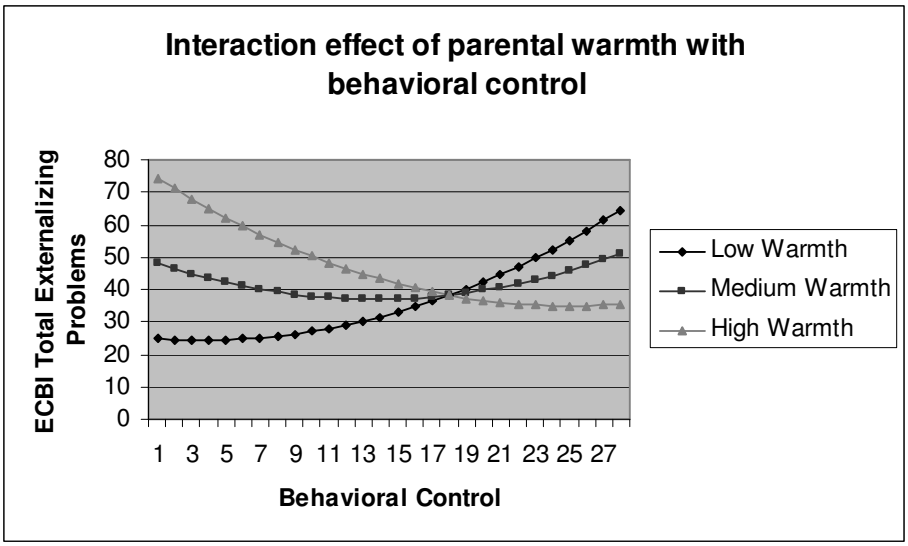

Figure 4.3 Interaction effect of parental warmth with behavioral control on ECBI child externalizing behaviors

Similarly, when the levels of psychological control exercised by the mothers increased, low and medium levels of parental warmth were not influential in decreasing the externalizing behaviors in children. However, in spite of the increasing levels of psychological control, when the mothers showed high parental warmth to their children, a decrease found in children's externalizing behaviors.

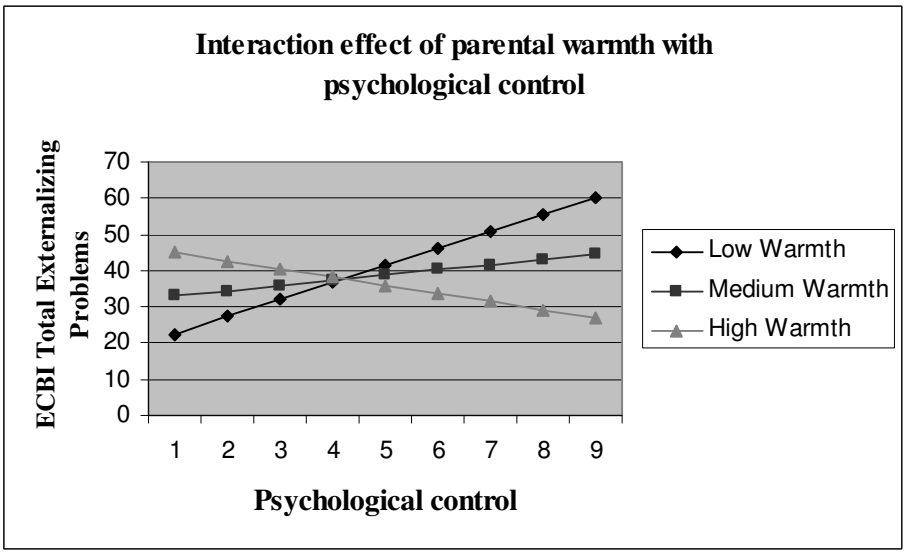

Figure 4.4 Interaction effect of parental warmth with psychological control on ECBI child externalizing behaviors

4.4.4. Interactive effects of three types of parental control with parental use of inductive reasoning on child externalizing behaviors

The possible interaction effect of parental use of inductive reasoning and parental control on the child externalizing behaviors measured by DPICS and ECBI was also explored. There was no interaction effect of parental use inductive reasoning with behavioral control (B = -.001, p = .34), psychological control (B = .000, p = .87), physical control (B = .006, p = .22) on externalizing behaviors measured by DPICS. Similarly, no interaction effect of parental use of inductive reasoning was found with respect to behavioral control (B = .000, p = .99), psychological control (B = -.056, p = .52), physical control (B = .079, p = .49) on ECBI total externalizing behaviors (The values are unstandardized coefficients). The results suggested that among the parents who exercised different levels of parental control, the level of parental use of inductive reasoning did not make any difference in the child externalizing problems.

Chapter 5

DISCUSSION

The main purpose of the current study was to investigate parental control (behavioral, psychological and physical control) in mothers of 3 year old children in Turkey using observational data from a sample of 123 mother-child dyads. The effects of parental control on child externalizing behaviors were studied in the context of other characteristics of the family and attributes of parenting.

5.1. Summary of Findings

All types of parental control (behavioral, psychological and physical) were positively associated with each other. This finding indicated that mothers used different types of control together. In Turkey, the three types of parental control increased or decreased simultaneously – not independently. That is, the parents used varying degrees of different types of control together. The cluster analyses also maintained the simultaneous use of parental control in this culture. In contrast to the current study findings, previous studies conducted in Western literature showed that mothers had a preference for a type of control such that they preferred a specific type of control over others (Aunola & Nurmi, 2005; Shek, 2007; Mills & Rubin, 1998; Barber, Olsen & Shagle, 1994). Although most of the studies examined the parental control conducted with adolescents, the studies with young children also enabled to study the not only the outcomes of different levels of control, but also the different patterns of control. For instance, Mills & Rubin (1998) and Aunola & Nurmi (2005)

studied the effects of using behavioral and psychological control simultaneously in varying levels with children of 5-6 years old of age. However, it was impossible to examine the interactive effects of different types of parental control in this study, because of the concurrent increase and decrease of the three types of parental control.

The self reports for parenting behaviors of this study could not be used to assess the parental control, because none of the self report measures were closely associated with observed control behaviors of the mothers. This supported the idea that parents could not differentiate between the types of control when they were asked to report their parenting behaviors possibly because they did not conceive these as distinct strategies for control. One could speculate that for Turkish parents, to control the behavior of the child might be a more salient concern than the specific strategies chosen to achieve this effect.

Consistent with previous research, the present analyses indicated that children of highly controlling parents displayed higher levels of externalizing problems than did the children of parents who used low and average levels of control. These children may display high levels of externalizing behaviors due to an inability to self regulate. Self regulation may fail to develop, because of the parents' restrictive and non democratic styles of disciplining (Rubin & Mills, 1990; Gurland, & Grolnick 2005; Olweus, 1993). Furthermore, as Bandura suggested, children model their parents punitive and power assertive behaviors (Crain, 1992; Baumrind, 1996). It is also possible that mothers and children affect each other's negative behaviors in a bidirectional way. According to the coercion theory (Patterson, 1982), in order to take control of the relationship, parents and children feed each other's negative

behaviors by repressing the other's controlling behaviors. In other words, when the parents behave negatively and try to control the behaviors of their children, children also try to gain control. Thus, the cycle of coercive behaviors continue.

Although the parents exercised different types of parental control simultaneously in Turkish culture, it was found that the independent effects of different types of control are distinct. Children of mothers who imposed very low and very high behavioral control displayed more externalizing behaviors than the children of mothers who used average levels of behavioral control. For the Turkish mothers, verbal behavioral control attempts between 11 and 17 per minute were found to be optimum levels which led to lower levels of externalizing behaviors in children. This finding was supported by the previous studies that, when the mothers used a certain level of behavioral control, children display lower levels of behavioral problems, because having reasonable and developmentally appropriate limits for the children enable them to learn self regulation skills (Pomerantz & Ruble, 1998**;** Barber et al., 1994).

Although the mothers had high levels of parental warmth, physical control was associated with negative outcomes in children. Even if it is given in an affectionate environment, punitive disciplining style appears to lead to negative outcomes such as aggressive and deviant behaviors for children (Kuczynski, 1984; Strassberg, Dodge, Petit, & Bates, 1994).

The investigation of the association of parental warmth with parental control provided support for a cultural exploration of parenting behaviors. Descriptive analyses indicated that parental control co-existed in the context of parental warmth, therefore it was possible to examine the interactive effects of them on child externalizing behaviors. The interaction effect of two parenting behaviors supported the buffering effect of parental warmth on the effect of high parental control on child externalizing problems in Turkish culture. This finding supported the necessity to focus on parental control rather than parenting styles and to consider the cultural factors in parenting when interpreting the results, because the patterns of parenting in collectivist cultures did not match with the individualist cultures (Kagitcibasi, 1970; Parpal & Maccoby, 1985; Wu et al., 2002; Deater-Deckard & Dodge, 1997).

However, in the current study it was found that parental warmth buffered the negative effects of behavioral and psychological control. Children displayed lower levels of externalizing behaviors if their mothers showed high parental warmth when they imposed behavioral and psychological control than if the mothers were low in parental affection. It is important to highlight that, an increase was found in child externalizing behaviors when the mothers exercised low behavioral and psychological control in the context of high levels of parental warmth. On the other hand, a buffering effect of parental warmth was found on behavioral and psychological control when the mothers exercised high parental control. In addition, when the mothers imposed optimum levels of behavioral control, the levels of parental warmth did not make any difference in child externalizing behaviors. This finding also supported the idea that optimum amount of behavioral control was necessary leading to lower levels of externalizing behaviors.

Parental control with explanations, where parents encourage reasoning and enable children to understand why they should behave in certain ways, have positive effects for children's social behavioral development (Chen et al., 2001; Grusec & Goodnow, 1994; Grusec, Goodnow, & Kuczynski, 2000). In contrast to expectations, there was no buffering effect of maternal use of inductive reasoning found on the negative effects of control on child externalizing behaviors. In this study, source of information for the parental use of inductive reasoning relied solely on parent reported data. It is possible that mothers had positively biased reports of their own behaviors and thus the measure of use of inductive reasoning lacked validity. Another possible reason might be that 3 year old children could not process the parental use of inductive reasoning, thus could not benefit from it when it was given within the context of high parental control.

5.2. Contributions

This thesis has several contributions to the literature. It was important to focus on parental control rather than parenting typologies of Baumrind, because authoritarian parenting does not necessarily include all three types of parental control and Turkish parents use parental control in a context in which they do not reject their children. There were studies conducted to investigate behavioral and psychological control in Turkey, but the sample of these studies consisted of adolescents (Dogruyol, 2008; Harma, 2008). There was no previous study examining the way the parents impose control in early childhood years in Turkish culture. The major contribution of this thesis is to investigate the effect of parental control (behavioral, psychological, and physical) on three year old children's externalizing behaviors in

the Turkish context. Since externalizing behaviors tend to be stable, it is important to identify the environmental factors that lead to externalizing behaviors in order to intervene and change the possible negative outcomes in children.

Another important contribution of this thesis is that it relies on both qualitative and quantitative methods to analyze the child and parent behaviors. This enables the study of the association between qualitative and quantitative measures for child and parenting behaviors. The observational data yields direct and objective information, but it is specific to a single situation. Parent reports may be biased, but they provide information on general tendencies of behavior. That is why, maternally reported child externalizing (ECBI) and observational child externalizing (DPICS) data were used to examine the difference in the way they were influenced by the parental control.

Moreover, the parental control and child externalizing behaviors are studied by an observational method with a standardized coding system in Turkish culture for the first time. The Turkish version of DPICS, which is a standardized coding system to assess mother-child interaction, was developed and the feasibility of the measures was established for Turkish families.

The sample of the current study represents the diversity of families in Turkish metropolitan regions in terms of socioeconomic status. The sample size is large when compared with other similar observational studies. For example, Chronis et. al.'s study (2007) consisted of 108 mother-child dyads, where Werba, Eyberg, Boggs, and

Algina's study (2006) consisted of 99 and Timmer, Borrego Jr., and Urquiza's study (2002) consisted of 15 mother-child dyads.

The independent and interactive effects of parental control with parental warmth on child externalizing behaviors are also obtained. It was possible to estimate the interaction effects, because of the substantial sample size of the current study. The results revealed that there was a buffering effect of parental warmth on high behavioral and psychological control on child externalizing behaviors.

5.3. Limitations

Despite the important contributions, this thesis has number of limitations. First, although the sample size was large when compared to other studies, the complex interactions require larger sample size, hence with more power in order to study the interaction effects of parental control with parental warmth better.

Second, the information gathered by the observational data is situational. The mothers and children in this study may behave in different ways if the observation would be done in another day. Thus, one can not be certain when generalizing the results. Related with these situation specific results, the stability of the parental control is also not known. That is why, a longitudinal investigation of parental control should be studied in order to understand whether the parents exercise the parental control within a specific situation or as a general behavioral tendency.

Third, the parental control could not be predicted with the self reported parenting items, because the self reported parenting behaviors used in this study were inadequate to measure the parental control.

Fourth, the mother characteristics such as mother aggression were not studied in the current thesis. It is possible that mother characteristics may influence the child behaviors directly and also indirectly through the parental control behaviors. The mother characteristics and child behavior problems may be associated and this association could partly account for the findings regarding the parental control and thus child externalizing behaviors.

5.4. Future Studies and Suggestions

The present study suggests three important issues for the future studies that may be developed: (1) longitudinal investigation of parental control (2) decision of self reported parental control measures and (3) an intervention program for the parents.

This study showed that Turkish mothers of 3 year old children used different types of control concurrently. In 3 year old children, the 'ultimate aim' of the parents can be to control the child and it may be more important to control a child than the way of controlling. This pattern may be different at older ages of children. In addition, the effects of parental control may change over time. It is possible that one type of a control may have more powerful effects on child's behaviors. That is why, a longitudinal investigation of the parental control should be done in order to specify

the age where it is possible to study the different outcomes of different patterns of parental control in child externalizing behaviors.

The other avenue for future studies is the development of self reported parental control measures for Turkish parents. In this study, three types of control could not be conceptually and operationally differentiated by extant quantitative measures. Self reported parenting measures with items specifically designed to differentiate the three types of parental control might enable the replication and validation of the results with large representative samples.

In the light of the findings that children of high control mothers displayed higher externalizing behaviors, an intervention program can be suggested for the mothers in order to change their parenting behaviors. It is important for the parents to learn democratic and positive disciplining ways by developmentally appropriate controlling techniques, because mothers and children feed each other's negative behaviors as the coercion theory suggests (Patterson, 1982). In addition, when the mothers learn how to use positive discipline techniques, their children would have the ability to self regulate their behaviors which leads to positive outcomes in children.

APPENDIX A

Article citation	Definition of behavioral control	Definition of psychological control	Method	Items	Outcome/focus
Mills R. S. L., Rubin K. H. (1998). Are Behavioural And Psychological Control Both Differentially Associated With Childhood Aggression And Social Withdrawal? Canadian Journal of Behavioural Science. 30, 132-136.	Focus on child's behavior and involves provision of structure, expectations, clear and consistent rules, and predictable contingencies for child's behavior.	Negative parenting practices that constrain, invalidate, and manipulate a child's psychological and emotional experience and expression (Barber, 1996).	Observation during 35 minutes of interaction of mother and child.	Videotaped: Behavioral control categories; imperative compliance commands; punishment or threat of punishment involving privileges or material objects; criticism directed at the child's behavior but not the child's personality or character; requests; play directives; reward; monitoring. Psychological control categories; devaluation of the child (statements that devalue or lower the status of the child, e.g., insult, sarcasm, belittling, criticism of character or personality), or nonresponsiveness (failing to acknowledge a signal from the child).	- Kindergarten children - Behaviorally under control leads to externalizing behaviors, and excessive behavioral and psychological control leads to internalizing behaviors. - Anxious children's mothers are more over controlled both behaviorally and psychologically
Steinberg L. (2005). Psychological control: Style or substance? New Directions for Child and Adolescent Development. 2005, 71 – 78.	No definition was given.	- Assertion of parental authority through use of emotional manipulative techniques such as love withdrawal and guilt induction. - Parental psychological			- Adolescence internalizing problems. - Psychological control is also defined by the subjective experience of adolescence so it is difficult to ask to a child about it. So

		control refers to parental behaviors that are nonresponsive to the emotional and psychological needs of children and stifle independent expression and autonomy.			not only the control but also how it is asserted should be studied.
Shek, D. T. (2007). Perceived parental behavioral control and psychological control in Chinese adolescents in Hong Kong: a replication. Adolescence, 42, 569-74.	"Rules, regulations and restrictions that parents have for their children" (Smetana & Daddis, 2002).	"Parents' attempt to control the child's activities in ways that negatively affect the child's psychological world and thereby undermines the child's psychological development" (Smetana & Daddis, 2002). Examples of psychological control include constraining verbal expression, invalidating feelings, personal attack, guilt induction, love withdrawal, and erratic emotional behavior.	Three factors with eigenvalues exceeding unity, explaining 57.6% of the variance. Scree test showed that two factors (paternal and maternal behavioral control) could be meaningfully extracted and the two-factor solution was rotated to a varimax criterion for interpretation. Factor 1 included paternal knowledge, paternal expectation, paternal monitoring, paternal discipline and paternal demandingness. Factor 2 included maternal knowledge, maternal expectation, maternal monitoring, maternal discipline and maternal demandingness.	<u>5 different scales to measure behavioral control.</u> - Maternal Knowledge Scale (e.g., "my mother clearly knows my situation in my school"; "my mother clearly understands who my friends are"). - Maternal Expectation Scale (e.g., "my mother requires me to have good behavior in school"; "my mother does not have clear rules about how I use my leisure time"). - Maternal Monitoring Scale (e.g., "my mother actively understands my situation in school"; "my mother actively understands what I do after school"). - Maternal Discipline Scale (e.g., "when I study hard, my mother praises me"; "when I don't follow my mother's	- 12-13 year students - Parental knowledge, monitoring and parental demandingness scale were negatively related to psychological control, whereas parental expectation and discipline scales were positively related to psychological control.

				expectation about the use of leisure time, my mother scolds me"). - Maternal Parenting Style Scale Maternal Parenting Scales (Lamborn, Mounts, Steinberg, & Dornbusch, 1991) were used to measure responsiveness and demandingness) AND - Maternal Psychological Control Scale (e.g., "my mother always wants to change my thoughts"; "when my mother criticizes me, he always mentions my mistakes in the past"; "my mother wants to control everything in my life").	
Aunola, K., Nurmi, J.E. (2005). The Role of Parenting Styles in Children's Problem Behavior. Child Development, 76, 1144 1159.	Behavioral control (e.g., maturity demands, monitoring, limit setting) consists of the regulation of the child's behavior through firm and consistent discipline (Barber, 1996; Galambos et al., 2003) In this study, behavioral control was characterized by parents' limit setting	Psychological control (e.g., love withdrawal, guilt induction) refers to parents' control of the child's emotions and behavior through psychological means (Barber, 1996). In this study, psychological control scale was characterized by control by parental attitudes of guilt and expressing disappointment.	Factor analysis study in a different sample and Cronbach's alpha reliability for each scale.	<u>6 items for behavioral control;</u> e.g., - My child should learn that we have rules in our family. - When I am angry with my child, I let him/her know about it. - If my child misbehaves I usually rebuke him/her. <u>4 items for psychological control</u>; e.g., - I believe a child should be	- 5-6 years of children - high psychological control and high affection leads to high externalizing problems - low psychological control and high behavioral control leads to low externalizing problems - low affection and high psychological control leads to low externalizing - high affection and high psychological control leads

	and maturity demands on child.			aware of how much I have done for him/her. - I let my child see how disappointed and ashamed I am if he/she misbehaves.	to high externalizing -high behavioral and low psychological control leads to low externalizing problems
Silk, J. S., Morris, A. S., Kanaya, T., & Steinberg, L. (2003). Psychological control and autonomy granting: Opposites of a continuum or distinct constructs? *Journal of Research on Adolescence, 13*, 113-128.	Level of parental monitoring and limit setting (Steinberg, 1990).- they just gave the definition to mention but did not study it.	- Intrusive, manipulative control that interferes with adolescent's psychological and emotional development (Steinberg, 1990). - Coercive, passive-aggressive, intrusive control that is characterized by hostility (Barber, 1996).	- Confirmatory factor analysis (maximum likelihood estimation)	<u>8 Psychological control items:</u> - When I get poor grade, my parents make me feel guilty - when I get a good grade, my parents say my other grades should be as good - My parents tell me that their ideas are correct and I should not question them. - my parents answer my arguments by saying something like 'you will know better when you grow up' -I should give in on arguments rather than make people angry. - emphasize that I should not argue with adults. - Act cold and unfriendly if I do smth that don't like. - won't let me do things with them when I do smth they don't like. They did not study behavioral control.	- 12 th grade students. - Psychological control leads to internalizing problems - It is not associated with externalizing problems such as delinquency and drug use.

Hasebe, Y., Nucci, L., & Nucci M. S. (2004). Parental Control of the Personal Domain and Adolescent Symptoms of Psychopathology: A Cross-National Study in the United States and Japan. Child Development, 75, 815-828.	Behavioral control refers to parents' efforts to control or guide adolescent conduct through rules, regulations, restrictions, and awareness of their adolescents' activities (Barber & Harmon, 2002).	The use of psychological control entails intrusiveness, guilt induction, and love withdrawal thought to interfere with adolescents' development of a sense of independence, identity, and personal integrity (Barber & Harmon, 2002).	- Item factor analysis with varimax rotation - As an additional check of the psychometric properties of the inventory, all of the items were entered into a single factor analysis to determine whether the scales were independent of one another. (Single varimax rotation as mentioned above). - Items included within a given scale could load only on a single factor with a minimum individual item factor loading of greater than .50.	The resulting three scales corresponded to areas of adolescent conduct consistent with parental behavioral control (PCDS), negotiated parental control (ODS), and parental intrusion associated with psychological control (PDS). Items ask for "My parents control me about..." <u>PDS</u> What clothes to wear What music listen to Who boyfriend or girlfriend is Who to be friends with Whether go out for school sport How wear hair What write in diary/journal How spend allowance Take good care of own things <u>PCDS</u> Smoke cigarettes Drink alcohol Cut school Use drugs Use foul language Talk back to grown-ups Use good table manners <u>ODS</u> See an ''R'' rated movie Do homework Have a part-time job Start dating	- Adolescence -Brief Symptom Inventory (BSI) used to assess psychological symptoms. - The findings indicate that the association between parental control and psychological maladjustment among adolescents is not a function of behavioral control , but rather the application of control over the personal and private areas of the adolescents' life space. - Psychological control leads to internalizing behaviors not externalizing (hostility) in both cultures.

				Do chores around the house Wear a coat on a cold day Be in other school activities Watch a violent movie Watch movie with explicit sex Stay overnight at a friend's house Stay overnight with boyfriend How late I can stay out Clean up my room How much time spend friends Get a tattoo Wear T-shirt with obscene logo Eat dinner together with family Get ear or nose pierced	
Hart, C. H., Nelson, D. A., Robinson, C. C., Olsen, S. F., McNeilly-Choque, M. K. (1998). Overt and Relational Aggression in Russian Nursery-School-Age Children: Parenting Style and Marital Linkages. Developmental Psychology, 34, 687-97.	They did not study behavioral control so there is no definition for it.	- Love oriented discipline, love withdrawal and guilt induction as Bronfenbrenner (1970) described. - Constrain, invalidate or manipulate children's psychological and emotional experience and expressions (Barber 1996).	Factor analysis with varimax rotation. (responses subjected to factor analysis).	Items included; -"ceasing to talk to child until he or she pleases us again," - "being less friendly when child doesn't see things our way," - "not looking at child when he or she disappoints us," - "saying "If you really cared for me, you would not make me worry," -"telling child he or she is not as good as other children," - "telling child he or she is not as good as we were growing up," -"making child feel guilty when he or she doesn't meet	- 3 years 7 month- 6 years 7 month of age. In general, overcontrolled, internalizing problems in children, anxiety and depression - Maternal psychological control significantly related to overt aggression.

				expectations," - "reminding child of things we have done for him or her"	
Joussemet M., Vitaro F., Barker, E.D., Cote S., Nagin D.S., Zoccolillo M., Tremblay R.E. (2008). Controlling Parenting and Physical Aggression During Elementary School. Child Development, 79, 411 – 425.	Guidelines and limits (but they did not consider behavioral control and did not study it).	- They view controlling parenting as psychological control. Power assertive parenting and opposite of psychological autonomy (pressure, intrusion) as controlling parenting. (limitation is that they did not take beh control into account) Barber's definition (1996)		(+)''My child must try every food I serve'' (+); ''My child should be aware that what I say goes'' (+); ''I think my child should comply with all my requests'' (+); ''I have tried to teach my child early who makes the decisions in our family'' (_); ''I try not to insist that my child always obey me'' (_); ''My child can make the decision not to eat food he really dislikes'' (_); ''I don't like to place a lot of rules on my child'' (_); ''One of the worst things a parent can do is insist that the child obeys their every command''.	- 6-12 ages of children. - Physical aggression and externalizing behaviors - Simply valuing obedience and preventing children to express ideas lead them not to adjust in different contexts
Barber, B. K., Olsen, J. E., & Shagle, S. C. (1994). Associations Between Parental Psychological and Behavioral Control And Youth Internalized And	"Family interaction that is disengaged and provides insufficient parental regulation of the child's behavior, as in excessive behavioral	"Patterns of family interaction that intrude upon or impede the child's individuation process, or the relative degree of psychological distance a child	Exploratory and confirmatory factor analyses (oblimin rotation), some items were removed and remaining explained	Table 1 and Table 2 below.	-Early and middle adolescent students. - psychological control leads to internalizing problems significantly and to

Externalized Behaviors. Child Development, 65, 1120-1136.	autonomy, lack of rules and restrictions, and/or lack of knowledge of a child's day-to-day behavior"	experiences from his or her parents and family" (Sabatelli & Mazor, 1985).	54.5% of variance. They give supports from literature for their constructs.		externalizing non significantly - Behavioral control leads to externalizing (low control) sig. and to internalizing non sig. - there is a significant negative correlation between psychological and behavioral control
Gurland, S. T., & Grolnick, W. S. (2005). Perceived Threat, Controlling Parenting, And Children's Achievement Orientations. *Motivation & Emotion, 29*, 103-121.	Defined as attempts to manage children's behavior, such as in monitoring their whereabouts (Barber, 1996; Gray & Steinberg, 1999)	Defined as parents' intrusion into the emotional and psychological development of the child (Barber, 1996; Gray & Steinberg, 1999)	- Children's Report of Parental Behavior Inventory (CRPBI) used for 3 parenting behaviors (acceptance, firm control, psychological control) - video types used for mother behaviors (autonomy vs. controlling)	psychological control items: e.g., I say if he/she loved me, he/she would do what I want, -I tell my son/daughter all the things I have done for him/her) Videotypes: Controlling verbal codes included directives, taking over, telling answers, and unsolicited checking. Controlling nonverbal codes were leading behaviors, taking over, showing answers and unsolicited checking.	- 3rd grade students - mothers who perceived the world their children would inhabit as high in threat used more controlling behavior in interacting with their children, and were more likely to endorse controlling parenting attitudes and values. -children of mothers who endorsed or used more controlling behavior reported focusing on grades (as opposed to learning), remembering course material only for the sake of doing well on a test, and choosing for their assignments easy topics that guarantee they will perform well

Barber, B. K. (1996). Parental psychological control: Revisiting a neglected construct. *Child Development*, *67,* 3296–3319.	"Parental behaviors that attempt to control or manage children's behavior"	- "Control attempts that intrude into the psychological and emotional development of child (e.g., thinking processes, self-expression, emotions, and attachment to parents)". - Allinsmith (1960) and MacKinnon (1938) in defining psychological discipline as parental behavior that, for example, appeals to pride and guilt, expresses disappointment, withdraws love, isolates the child, and involves shaming. - potentially inhibits or intrudes upon psychological development through manipulation and exploitation of the parent-child bond (e.g., love-withdrawal and guilt induction), negative, affect-laden expressions and criticisms (e.g., disappointment and shame), and excessive personal control (e.g., possessiveness, protectiveness).	- Factor analysis (items load more than .50). study 1 - 10 min. problem solving session coded by FBC micro social coding system (study 2)	- <u>Behavioral control items;</u> my parents know; - "Where you go at night," -"Where you are most afternoons after school," - "How you spend your money," - "What you do with your free time," -"Who your friends are." <u>Psychological control items; (study 1)</u> - would like to be able to tell me what to do all the time. - wants to control whatever I do. - is always trying to change me. - only keeps rules when it suits her (him). - is less friendly with me, if I do not see things her (his) way. - will avoid looking at me when I have disappointed her (him). - if I have hurt her (his) feelings, stops talking to me until I please her (him) again. <u>Psychological control observations; (study 2)</u> - Constraining Verbal Expressions - Invalidating Feelings - Personal Attack on Child - Guilt Induction	- 5^{th} & 8^{th} and 10^{th} grade adolescent students - behavioral control linked to externalizing and psychological control linked to internalizing

				- Love Withdrawal - Erratic Emotional Behavior <u>Psychological control items; (study 3)</u> 1. changes the subject, whenever I have something to say. *2. finishes my sentences whenever I talk. *3. often interrupts me. *4. acts like she (he) knows what I'm thinking or feeling. *5. would like to be able to tell me how to feel or think about things all the time. *6. is always trying to change how I feel or think about things. *7. blames me for other family members' problems. *8. brings up my past mistakes when she (he) criticizes me.	

TABLE 1 ITEMS SELECTED TO MEASURE PSYCHOLOGICAL CONTROL	TABLE 2 ITEMS SELECTED TO MEASURE BEHAVIORAL CONTROL
It is difficult for family members to take time away from the family.	Family members are not punished or reprimanded when they do something wrong.
Family members feel guilty if they want to spend some time alone.	There are very few rules in our family.
Family members find it hard to get away from each other.	Members of our family can get away with almost anything.
Family members feel pressured to spend most free time together.	Each family member does as he or she wishes without concern about the others.
The children in our family have little influence on anything of real importance.	Family members seem to avoid contact with each other when at home.
In our family, parents do not check with the children before making important decisions.	Members of our family generally go their own way.
In our family, we know where all family members are at all times.	My mother gives me as much freedom as I want.
Parents make all the important decisions in our family.	My mother lets me do anything I like to do.
There is strict punishment for breaking rules in our family.	My mother lets me go out any evening I want.

It seems like there is never any place to be alone in our house. My mother insists that I must do exactly as I am told. My mother is always telling me how I should behave. My mother says, if I really cared for her, I would not do things that cause her to worry. My mother is very strict with me. My mother wants to control whatever I do. My mother is always trying to change me. My mother will avoid looking at me when I have disappointed her. My mother, if I have hurt her feelings, stops talking to me until I please her. My mother is less friendly with me if I do not see things her way. My mother would like to be able to tell me what to do all the time.	My mother lets me go any place I please without asking. **Monitoring** How much do your parents really know where you go at night? How much do your parents really know where you are most afternoons after school? How much do your parents really know how you spend your money? How much do your parents really know what you do with your free time? How much do your parents really know who your friends are?

Harma, M. (2008). The Impact of Parental Control and Marital Conflict on Adolescents' Self-Regulation And Adjustment. Unpublished master's thesis, Middle East Technical University, Ankara, Turkey.	Behavioral control refers to attempts to control or manage child behavior. It includes parental knowledge and parental monitoring; - Parental knowledge means information about adolescent's daily activities. - Parental monitoring means parents' knowledge of the child's whereabouts, activities, and associations.	In this study, the manipulative type of parental psychological control which is defined as an attempt to shape the children's behavior or adjust the emotional balance between parents and children by using strategies: guilt induction and love withdrawal.	- <u>Psychological control</u>: - The Parental Psychological Control Scale (PPCS) was used. - Explanatory factor analyses were conducted to examine the factor structure of the scale in the Turkish sample. A principle component analysis with varimax rotation was run on the items of the Perceived Maternal/Paternal Psychological Control Scale. - Explanatory factor analysis revealed two interpretable factors representing the two dimensions of psychological control, namely guilt induction/erratic emotional behaviors and love withdrawal/irrespective <u>Behavioral control:</u> - Kerr and Stattin's (2000) Behavioral Control Scale (BCS) included parental knowledge and monitoring scales were used. - Explanatory factor analysis with varimax rotation were run and similar to Kerr and Stattin' (2000) findings, results revealed two interpretable dimensions,	Psychological and Behavioral Control items used in the study are shown below in Table 3.	- 11 to 14 years old adolescents - perceived love withdrawal/irrespective significantly predicted aspects of self-regulatory skills and adjustment, whereas guilt induction/erratic emotional behaviors did not predict any adolescent outcome variable. - perceived maternal monitoring predicted successful self-regulation. These findings were consistent with the previous studies showing that insufficient behavioral control is a greater risk for the development of externalized problem behaviors. - Only behavioral control was assumed to have a U-shaped relationship with adolescent outcomes. - Maternal love withdrawal/irrespective behaviors had the strongest association with hyperactivation/ inattention only in the presence of the high parental knowledge (significant interaction between LW & PK). - the risk to adolescent hyperactivation of maternal guilt induction/erratic emotional behaviors was also heightened only when it was paired with high levels of maternal knowledge. Taken together, these results were consistent with Pettit and Laird's (2002) findings in which psychological

			representing parental knowledge and monitoring subscales.		control and monitoring taken as factors shaping the course and consequences of child adjustment.
Dogruyol, B. (2008). The Impact of Parental Control and Support on The Development of Chronic Self-Regulatory Focus. Unpublished master's thesis, Middle East Technical University, Ankara, Turkey.	Sufficient regulation of behavior to enable them to learn that social interaction is governed by rules and structures that must be recognized and adhered to in order to be a competent member of society (Barber et al., 1994). Family interaction that is disengaged and provides insufficient parental regulation of the child's behavior autonomy, lack of rules and restrictions, and /or lack of knowledge of a child's day-to-day behavior (Barber et al., 1994).	The patterns of family interaction that intrude upon or impede the child's individuation process, or the relative degree of psychological distance a child experiences from his/her parents and family and it has been viewed as important correlate of identity formation, a central task for adolescence (Barber et al., 1994).	<u>Psychological control:</u> Barber's (1996) Psychological Control Scale-Youth Self Report (PCS-YSR) was used. Factor structure on different samples by using confirmatory factor analyses. <u>Behavioral control</u>: Kerr and Stattin's (2000) 22-item behavioral control questionnaire was used. Principal component analysis indicated that single factor (component) solution. <u>Parental Overprotection</u>: 7-item parental overprotection scale developed for a research project was used. Three of the items were taken from EMBU Parental Overprotection Subscale.	Psychological and Behavioral Control items are shown below in Table 3. Parental Overprotection items are shown in Table 3.	- University students (mean age=19.27). - Maternal support was positively correlated with maternal behavioral control. Moreover, maternal psychological control was negatively correlated with maternal behavioral control and support. - As the levels of maternal behavioral control decreased and psychological control increased, females became more prevention focused. - Accordingly, overprotection and guilt induction were perceived higher than the blaming and love withdrawal. This finding can be explained by the particular emphasis on overprotection and guilt induction in Turkish culture. - Psychological control was found to be related to prevention focus in expected direction (lead to higher levels) and was not related to promotion focus. - Maternal blaming and love withdrawal, maternal overprotection predicted higher

			Factor analysis was conducted to assess the factor structure of parental overprotection scale.		levels of prevention focus. Though, guilt induction did not contribute to the prevention focus. - Blaming and love withdrawal with its strong effect on the prevention focus, seems to be the most detrimental result of psychological control. Guilt induction is not perceived as an intrusion to individual's psychological world in Turkish sample.

Table 3

Psychological Control Scale (PCS)	**Behavioral Control Scale (BHC)**
Guilt induction= G ; Love Withdrawal = LW 1. Çocuğum konuşurken bitirmesini beklemeden cümlesini tamamlarım. (LW) 2. Çocuğumun ne hissettiğini, ne düşündüğünü sormam, zaten bilirim. (G) 3. Çocuğumu eleştirirken geçmişte yaptığı hataları hatırlatırım. (LW) 4. Diğer aile üyelerinin sorunları için çocuğumu suçlarım. (LW) 5. Çocuğuma o etraftayken birden parlar, duygusal davranışlar gösteririm. (G) 6. Çocuğumun soru sorup, sürekli rahatsız etmesinden hoşlanmam. (LW) 7. Çocuğumla birlikteyken kolaylıkla sabrım tasar. (LW) 8. Çocuğum dikkatimi çekmek istediğinde görmezden gelirim. (LW) 9. Çocuğum benimle aynı fikirde olmadığında ona karsı soğuk ve daha az samimi davranırım. (LW) 10. Çocuğum beni hayal kırıklığına uğrattığında bunu ona hissettiririm. (G) 11. Çocuğuma kızdığım zaman bunu ona hissettiririm. (G) 12. "Benim ne hissettiğime önem verseydin beni üzecek bu şeyleri yapmazdın" vb. derim. (G) 13. Çocuğum yanlış davrandığında hayal kırıklığımı ona gösteririm. (G) 14. Beklentilerimi yerine getirmediğinde beni utandırdığını söylerim. (G) 15. Yanlış davrandığı zaman beni hayal kırıklığına uğrattığını söylerim. (G) 16. Çocuğum bir şey söylerken konuyu değiştiririm. (LW) 17. Çocuğum konuşurken sözünü keserim. (LW)	Parental Knowledge = PK ; Monitoring =M 1. Çocuğunuzun kiminle zaman geçirdiğini bilir misiniz? (PK) 2. Çocuğunuzun bos zamanlarını nasıl geçirdiğini bilir misiniz? (PK) 3. Çocuğunuzun parasını nelere, nasıl harcadığını bilir misiniz? (PK) 4. Çocuğunuzun okuldan sonra nereye gittiğini bilir misiniz? (PK) 5. Çocuğunuzun hafta sonu ve tatillerde ne yaptığını bilir misiniz? (PK) 6. Çocuğunuzun okulda yasadığı sorunları bilir misiniz? (M) 7. Çocuğunuz bir yere gitmek için ayrıldığında size ya da başka bir büyüğüne nereye gittiğini söyler mi? (PK) 8. Arkadaşlarıyla dışarıya çıktığında çocuğunuz kaçta evde olacağını söyler mi? (PK) 9. Çocuğunuz siz evde olmadığınızda ve evden çıkması gerekiyorsa nereye gittiğini söylemek için size not bırakır ya da telefon eder mi? (PK) 10. Evde olmadığınızda çocuğunuz size nasıl ulaşabileceğini bilir mi? (PK) 11. Çocuğunuzun hangi derslerden ödevi olduğunu bilir misiniz? (M) 12. Çocuğunuz ve dersleri hakkında öğretmenleri ile görüşür müsünüz? (M) 13. Çocuğunuzun sınav sonuçlarını, önemli ödevlerini bilir misiniz? (PK) 14. Çocuğunuzun farklı derslerdeki durumunu ve başarısını bilir misiniz? (PK) 15. Çocuğunuz size okulda derslerinin nasıl gittiğini söyler mi? (M)

18. Çocuğumun bazı konulardaki hislerini ve düşüncelerini değiştirmeye çalışırım. (LW) 19. Çocuğumun çoğu konuda ne düşüneceğini, nasıl hissetmesi gerektiğini söylemek isterim. (G) 20. Çocuğuma yaptığı bazı davranışların "aptalca, ahmakça" olduğunu söylerim. (LW) 21. Çocuğuma karsı sabırsız davranırım. (LW) 22. Bir taraftan çocuğumu eleştirirken bir taraftan sıcak davranmak arasında gider gelirim. (G) 23. Çocuğumla birlikteyken huysuzlaşırım, ruh halim değişir. (LW) 24. Beni hayal kırıklığına uğrattığında, çocuğumla göz teması kurmaktan kaçınırım. (LW) 25. Çocuğum üzdüğünde beni memnun edene kadar onunla konuşmam. (G) 26. Çocuğum benimle konuştuğunda ona pek dikkatimi vermem. (LW) 27. Çocuğuma benim çocukluğumda olduğum kadar onun iyi olmadığını söylerim. (LW) 28. Çocuğuma onun için ne kadar çok çalışıp yorulduğumu söylediğim zamanlar olur. (G) 29. Çocuğuma yaptığımız her şeyi onun için yaptığımı söylerim. (G) 30. Çocuğuma, kötü davranışlarından, yaramazlıklarından utanması gerekiğini söylerim. (G) 31. Çocuğum yanlış davrandığı her zaman cezalandırılacağını söylerim. (LW) 32. Çocuğuma diğer çocuklar kadar iyi olmadığını söylerim. (LW)	16. Çocuğunuz okulda gününün nasıl geçtiğini anlatır mı? (örneğin, sınavlarının nasıl geçtiğini, öğretmeniyle arasının nasıl olduğunu vb.) (M) 17. Çocuğunuz bos zamanlarında yaptıkları hakkında sizinle konuşur mu? (M) 18. Çocuğunuz arkadaşlarıyla oynayıp eve geldiğinde neler yaptığını size anlatır mı? (M) 19. Çocuğunuz arkadaşları hakkında sizinle konuşur mu? (M) 20. Çocuğunuzun arkadaşları geldiğinde onlarla konuşur musunuz? (PK)

Table 3

Parental Overprotection:

1. Annem basıma bir şey gelecek korkusuyla başka çocukların yaptığı bazı şeyleri yapmama izin vermezdi. 2. Annemin ne yapıp ettiğim konusunda daha az endişelenmesini isterdim. 3. Oynarken tehlikeler konusunda en çok benim annem uyarırdı (Ağaca, duvara tırmanmamamı söylemek gibi) 4. Sokakta oynarken annesi tarafından en çok çağırılan çocuk ben olurdum. 5. Annem üşüyeceğim endişesiyle beni çok kalın giydirirdi. 6. Annemin basıma bir şey gelebileceği yolundaki endişeleri çok abartılıydı. 7. Annem, oynarken evin yakınından ayrılmama hiç izin vermezdi.

Conceptual Definitions of Behavioral and Psychological Control

Definition of Behavioral Control	**Authors**											
	# (Number of times of citation)	Mills et al	Steinberg	Shek	Aunola et al	Silk	Hasebe et. al.	Hart et.al.	Joussemet et al.	Barber (1996)	Barber (1994)	Gurland et. al.
Rules, regulations and restrictions to manage behavior	6	√		√			√			√	√	√
Guidelines and limit setting	3				√	√			√			
Monitoring	3				√	√						√
Knowledge of a child's day-to-day activities	2						√				√	
Predictable contingencies	1	√										
Maturity demands	1				√							

Definition of Psychological Control	**Authors**											
	#	Mills et. al.	Steinberg	Shek	Aunola et. al.	Silk	Hasebe et al.	Hart et.al.	Joussemet et al.	Barber (1994)	Barber (1996)	Gurland et al.
Constrain, invalidate, and manipulate a child's psychological and emotional experience, expression and autonomy	7	√	√	√			√	√		√		√
Manipulation of parent-child bond (intrusiveness, guilt induction, love withdrawal, criticisms, expressing disappointment, and shame)	6		√	√	√		√	√			√	
Negatively affect the child's psychological and emotional world/development	4			√		√					√	√
Power assertive parenting (pressure, intrusion, coercive)	2					√			√			
Nonresponsive to the emotional and psychological needs	1		√									
Control of the child's emotions	1				√							
Isolates the child	1										√	
Excessive personal control (e.g., possessiveness, protectiveness)	1										√	

Operational Definitions of Behavioral and Psychological Control

Measurement of Behavioral Control	**Authors**											
	#	Mills et al.	Steinberg	Shek	Aunola et al.	Silk	Hasebe et. al.	Hart et.al.	Joussemet et. al.	Barber et al. (1994)	Barber (1996)	Gurland et.al.
Monitoring (parental awareness/knowledge of children's daily activities)	5	√		√			√			√	√	
Commands and play directives	3	√								√		√
Autonomy and independence giving	2									√		√
Requests and demandingness	2	√		√								
Maternal Expectation (home rules)	2			√	√							
Maternal Discipline (praise/scold/rebuke)	2			√	√							
Punishment or threat of punishment	1	√										
Criticism directed at the child's behavior	1	√										
Reward	1	√										
Responsiveness	1			√								

Expressing anger to child	1				√							
Unrestricted Autonomy Granting (firm vs lax control)	1									√		
Disengaged family relations	1									√		
Intrude upon the child's ongoing course of activity (telling answers/taking over)	1											√

Measurement of Psychological Control	**Authors**											
	#	Mills et. al.	Steinberg	Shek	Aunola et. al.	Silk	Hasebe et. al.	Hart et.al.	Joussemet et al.	Barber (1994)	Barber (1996)	Gurland et. al.
Attempting to influence the emotions when smth done wrong (disappointed, ashamed, and guilty, love withdrawal)	7			√	√	√		√		√	√	√
Obedience to parents without questioning	5					√	√		√	√	√	
Control activities & thoughts of the child	4			√			√			√	√	
Act cold and unfriendly, ceasing to talk, avoid looking at child when smth wrong done	4					√		√		√	√	
Awareness of mother's altruism	3				√			√				√
Devaluation of the child (insult, sarcasm, belittling, criticism of character or personality, blaming the child)	1	√										
Nonresponsiveness	1	√										
Compare with other children	1							√				
Erratic Emotional Behavior	1										√	
Demand for excess time spent with family	1									√		

REFERENCES

Achenbach, T. M., Edelbrock, C., & Howell, C. (1987). Empirically-based assessment of the behavioral/ emotional problems of 2-3 year old children. Journal of Abnormal Child Psychology, 15, 629-650.

Adeyemi-Bello, T., & Tomkiewicz, J.M. (1996). The Attitudes of Nigerians Toward Women Managers. *Journal of Social Behavior & Personality, 11*(5), 133-139.

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders (4th Ed.).* Washington, DC:Author.

Arnold, D. H. (1997). Co-occurrence of externalizing behavior problems and emergent academic difficulties in young high-risk boys: A preliminary evaluation of patterns and mechanisms. *Journal of Applied Developmental Psychology, 18,* 317-330.

Arslan, P. (2009). Adaptation of Dyadic Parent Child Interaction Coding System. Unpublished master's thesis, Koc University, Istanbul, Turkey.

Aunola, K., Nurmi, J.E. (2005). The Role of Parenting Styles in Children's Problem Behavior. Child Development, 76, 1144-1159.

Barber, B. K. (1996). Parental psychological control: Revisiting a neglected construct. *Child Development*, *67,* 3296–3319.

Barber, B. K., & Harmon, E. L. (2002). *Violating the Self: Parental Psychological Control of Children and Adolescents.* In B. K. Barber (ed.), Intrusive Parenting: How Psychological Control Affects Children and Adolescents. Washington, DC : American Psychological Association Press.

Barber, B. K., Olsen, J. E., & Shagle, S. C. (1994). Associations Between Parental Psychological and Behavioral Control And Youth Internalized And Externalized Behaviors. Child Development, 65, 1120-1136.

Barber, B. K., Stolz, H. E., & Olsen, J. A. (2005). *Parental Support, Psychological Control and Behavioral Control: Assessing Relevance Across Time, Culture and Method.* Monographs of the Society for Research in Child Development. Blackwell Publishing.

Baumrind, D. (1968). Parenting Adolescence. In Bornstein, M. H. (Vol. Ed.) *Handbook of Parenting: Vol. 1. Children and Parenting* (pp. 91- 117). NJ: Lawrance Erlbaum Associates.

Baumrind, D. (1996). The discipline controversy revisited. *Family Relations*, 45, 405-414.

Baydar, N., Akcinar, B., Arslan, P. (2007). Dyadic Parent-Child Interaction Coding System, Unpublished Manuscript.

Baydar, N., & Bekar, O. (2007). HOME-TR observation and interview scales, Unpublished Manuscript. Retrieved May 25, 2009, from http://portal.ku.edu.tr/~tecge/index.htm.

Baydar, N., Kuntay, A., Goksen, F., Yagmurlu, B., & Cemalcilar, Z. (2007). Eyberg Child Behavior Inventory- TR, Unpublished Manuscript.

Baydar, N; Kuntay, A; Goksen, F; Yagmurlu, B; Cemalcilar, Z. (2007). Parenting Goals Questionnaire -TR, Unpublished Manuscript.

Baydar, N., Kuntay, A., Goksen, F., Yagmurlu, B., & Cemalcilar, Z. (2007). Parenting Questionnaire-TR, Unpublished Manuscript.

Baydar, N., Kuntay, A., Goksen, F., Yagmurlu, B. & Cemalcilar, Z. (2008). [The Study of Early Childhood Developmental Ecologies in Turkey-Wave- 1 Results]. Retrieved May 25, 2009, from http://portal.ku.edu.tr/~tecge/index.htm.

Bayley, N., Schaefer E. S (1960). Socioeconomic Status and Parenting. In Bornstein, M. H. (Vol. Ed.) *Handbook of Parenting: Vol. 2. Biology and Ecology of Parenting.* (pp. 161-188). NJ: Lawrance Erlbaum Associates.

Bean, R. A., Barber, B. K., & Crane, D. R. (2006). Parental support, behavioral control, and psychological control among African American youth. *Journal of Family Issues*, 27, 1335-1355.

Belsky, J. (1984). The Determinants of Parenting: A Process Model. *Child Development, 55,* 83-96.

Berk, L.E. (2003). Child Development. America: Pearson Education, Inc.

Boggs, S. R., Eyberg, S. & Reynolds, L. A. (1990). Concurrent validity of the Eyberg Child Behavior Inventory. *Journal of Clinical Child Psychology, 19,* 75-78.

Bornstein, M. H (1995). Discipline and Child Compliance in Parenting. In Bornstein, M. H. (Vol. Ed.) *Handbook of Parenting: Vol. 4. Applied and Practical Parenting* (pp. 205-224). NJ: Lawrance Erlbaum Associates.

Bradley, R. H. (1981). Preschool home environment and classroom behavior. Journal of Experimental Education, 49, 196-206.

Bradley, S.J. (2000). Affect regulation and the development of psychopathology. New York: The Guilford Press.

Bradley, R.H. & Caldwell, B.M. (1979). Home observation for measurement of the environment: A revision of the preschool scale. American Journal of Mental Deficiency, 84, 235-244.

Bradley, R.H., & Caldwell, B, M. (1984). The relations of infants' home environments to achievement test performance in first grade: A follow-up study. Child Development, 55, 803-809.

Bronfenbrenner, U. (1986). Ecology of the family as a context for human development: Research perspectives. Developmental Psychology, 22, 723-742.

Bronfenbrenner, U. (1970). Two worlds of childhood: U.S. and U.S.S.R. New York: Russell Sage Foundation.

Campbell, S.B. (1995). Behavior problems in preschool children: A review of recent research. Journal of Child Psychology and Psychiatry and Allied Disciplines, 36, 113-149.

Chang, L., Schwartz, D., & Dodge, K. A. (2003). Harsh parenting in relation to child emotion regulation and aggression. Journal of Family Psychology, 17, 598-606.

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.

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.

Chen, X., Wu, H., Chen, H., Wang, L., Cen G. (2001). Parenting Practices and Aggressive Behavior in Chinese Children. *Parenting: Science & Practice,* 1, p159.

Clark, K. E., & Ladd, G. W. (2000). Connectedness and autonomy support in parent child relationships: Links to children's socioemotional orientation and peer relationships. Developmental Psychology**,** 36, 485–498.

Coie, P.M., Michel, M.K., & O'Donnell Teti, L. (1994). The development of emotion regulation and dysregulation: a clinical perspective. In N. A. Fox (Ed.), The development of emotion regulation: Biological and behavioral considerations, Monographs of the Society for Research in Child Development, 59, 73-100.

Coie, J.D., Dodge, K.A. (1998). Aggression and antisocial behavior. In W. Damon (Series Ed.) & N. Eisenberg (Vol. Ed.), Handbook of child psychology: Vol 3: Social, emotional, and personality development (5th ed., pp. 769-882). New York, John Wiley and sons. Inc.

Crain, W. (1992). Theories of development: concepts and applications. Prentice Hall, NJ: Englewood Cliffs.

Çekici, F. (2003). The analysis of internalizing and externalizing behavior problems existing in 5th, 6th, and 7th grades elementary school students according to a number of variables. Unpublished master's thesis, University of Çukurova, Adana, Turkey.

Deater- Deckard K., & Dodge, K.A. (1997). Externalizing Behavior Problems and Discipline Revisited: Nonlinear Effects of Culture, Context, and Gender. *Psychological Inquiry*, *8,* 161-175.

Dekovic, M. ,& Janssens, J. M. (1992). Parents' child-rearing style and child's sociometric status. *Developmental Psychology*, *28*, 925-932.

Dogruyol, B. (2008). The Impact of Parental Control and Support on The Development of Chronic Self-Regulatory Focus. Unpublished master's thesis, Middle East Technical University, Ankara, Turkey.

Eisenberg, N. (1977). Parenting and Children's Moral Development. In Bornstein, M. H. (Vol. Ed.) *Handbook of Parenting: Vol. 4. Applied and Practical Parenting* (pp. 227-257). Lawrance Erlbaum Associates, New Jersey.

Eyberg, S. & Robinson, E. A. (1983). Conduct problem behavior: Standardization of a behavioral scale with adolescents. Journal of Clinical Child Psychology, 12, 347-354.

Frigerio, A., Cattaneo, C., Cataldo, M., Schiatti, A., Molteni, M., & Battaglia, M. (2004). Behavioral and emotional problems among Italian children and adolescents aged 4 to 18 years as reported by parents and teachers. European Journal of Psychological Assessment, 20, 124-133.

Galambos, N.L., Barker, E.T., & Almeida, D.M. (2003). Parents *do* matter: Trajectories of change in externalizing and internalizing problems in early adolescence. *Child Development,* 74*,* 578-594.

Gauthier, Y. (2003). Infant mental health as we enter the third millennium: Can we prevent aggression? *Infant Mental Health Journal, 24(3),* 296-308.

Gay, L. R. & Airasian, P. (2003). Educational Research: Competencies for Analysis and Applications, Seventh Edition. Upper Saddle River, NJ: Pearson Education.

Gray, M. R., & Steinberg, L. (1999). Unpacking authoritative parenting: Reassessing a multidimensional construct. *Journal of Marriage and the Family*, *61,* 574–587.

Greenwald, R. L., Bank, L., Reid, J. B., & Knutson, J. F. (1997). A disciplinemediated model of excessively punitive parenting. Aggressive Behavior, 23, 259-280.

Grolnick, W. S. (2003). *The Psychology of Parental Control: How Well-Meant Parenting Backfires.* NJ: Lawrance Erlbaum Associates.

Grolnick, W.S., Price, C. E., Beiswenger, K. L., Sauck C. C. (2007). Evaluative Pressure in Mothers: Effects of Situation, Maternal, and Child Characteristics on Autonomy Supportive Versus Controlling Behavior. Developmental Psychology, 43, 991-1002.

Grusec J. E., & Goodnow J. J. (1994). Impact of Parental Discipline Methods on the Child's Internalization of Values: A Reconceptualization of Current Points of View. *Developmental Psychology*, *30*, 4-19.

Grusec J. E., Goodnow J. J., & Kuczynski L. (2000). New Directions in Analyses of Parenting Contributions to Children's Acquisition of Values. *Child Development, 71,* 205-211.

Guralnick, M. J. (2001). A Developmental Systems Model for Early Intervention. *Infants and Young Children, 14,* 1-18.

Gurland, S. T., & Grolnick, W. S. (2005). Perceived Threat, Controlling Parenting, and Children's Achievement Orientations. *Motivation & Emotion, 29*, 103-121.

Harma, M. (2008). The Impact of Parental Control and Marital Conflict on Adolescents' Self-Regulation And Adjustment. Unpublished master's thesis, Middle East Technical University, Ankara, Turkey.

Hart, C. H., Nelson, D. A., Robinson, C. C., Olsen, S. F., McNeilly-Choque, M. K. (1998). Overt and Relational Aggression in Russian Nursery-School-Age Children: Parenting Style and Marital Linkages. Developmental Psychology, 34, 687-97.

Hasebe, Y., Nucci, L., & Nucci M. S. (2004). Parental Control of the Personal Domain and Adolescent Symptoms of Psychopathology: A Cross-National Study in the United States and Japan. Child Development, 75, 815-828.

Joussemet M., Vitaro F., Barker, E.D., Cote S., Nagin D.S., Zoccolillo M., Tremblay R.E. (2008). Controlling Parenting and Physical Aggression During Elementary School. Child Development, 79, 411 – 425.

Kagitcibasi, C. (1970). Social Norms and Authoritarianism: A Turkish-American Comparison. Journal of Personality and Social Psychology, 16, 444-451.

Kagitcibasi, C. (1996). *Family and human development across cultures: A view from the other side.* Mahwah, NJ: Erlbaum.

Kagitcibasi, C. (2007). *Family, self, and human development across cultures: Theory and applications* (2nd ed.). Lawrence Erlbaum.

Kağitcibasi, C., & Sunar, D., Bekman, S. (1992). Family and Socialization in Turkey. In J. L .Roopnarine, D. C. Carter (Vol. Ed.), and I. Sigel (Series Ed.), Parent-Child Socialization in Diverse Cultures: Vol.5. Annual Advances in Applied Developmental Psychology (pp.75-88). USA: Ablex Publishing.

Kagitcibasi, C., Sunar, D. & Bekman, S. (2001). Long-term effects of early intervention: Turkish low income mothers and children. *Applied Developmental Psychology, 22*, 333-361.

Kircaali- Iftar, G. (2005). How do Turkish mothers discipline children? An analysis from a behavioural perspective. Child: Care, Health & Development, *31*, 193-201.

Knafo, A., Plomin, R. (2006). Parental discipline and affection and children's prosocial behavior: Genetic and environmental links. *Journal of Personality and Social Psychology*, *90*, 147-164.

Kuczynski, L. (1984). Socialization goals and mother-child interaction: Strategies for long-term and short-term compliance. *Developmental Psychology, 20*, 1061-1073.

Kumru A., Sayıl M., Yağmurlu B. (2006). TÜBİTAK Projesi "Kariyer: Çocukların bilişsel, duygusal ve olumlu sosyal gelişimlerinin boylamsal çalışılması.

Liu, M., Chen X., Kenneth H. R., Zheng S., Cui L., & Dan L. (2005). Autonomy- vs. connectedness-oriented parenting behaviours in Chinese and Canadian mothers.International Journal of Behavioral Development, 29, 489-495.

Maccoby, E. & Martin, J. (1983). Parenting Adolescence. In Bornstein, M. H. (Vol. Ed.) *Handbook of Parenting: Vol. 1. Children and Parenting* (pp. 91- 117). NJ: Lawrance Erlbaum Associates.

Mills R. S. L., Rubin K. H. (1998). Are Behavioural And Psychological Control Both Differentially Associated With Childhood Aggression And Social Withdrawal? Canadian Journal of Behavioural Science. 30, 132-136.

Montazer, S. (2005). The Effect of Parental Control and Parental Care on Children's Mental Health: Does Self-Esteem matter? Conference Papers -- American Sociological Association, 2005 Annual Meeting, Philadelphia, p1-21.

Olweus, D. (1993). Parents of Aggressive and Withdrawn Children. In Bornstein, M. H. (Vol. Ed.) *Handbook of Parenting: Vol. 1. Children and Parenting.* (pp. 255-284). NJ. Lawrance Erlbaum Associates.

Parpal, M., & Maccoby, E. E. (1985). Maternal responsiveness and subsequent child compliance. *Child Development*, *56*, 1326-1334.

Patterson, G. R. (1982). *Coercive family process.* Eugene, OR: Castalia.

Pomerantz, E. M., & Ruble, P. N. (1998). The role of maternal control in the development of sex differences in child's self-evaluative factors. *Child Development*, *69*, 458-478.

Robinson, E. A., & Eyberg, S. M. (1981). The dyadic parent-child interaction coding system - standardization and validation. *Journal of Consulting and Clinical Psychology, 49*, 245-250.

Robinson, E. A., Eyberg, S. M. & Ross, A. W. (1980). The standardization of an inventory of child conduct problem behaviors. *Journal of Clinical Child Psychology, 9,* 22-28.

Rothbaum, F. & Weisz, J. R. (1994). Parental caregiving and child externalizing behavior in nonclinical samples: A meta-analysis. *Psychological Bulletin, 116,* 55-74.

Rubin, K. H. ,& Mills, R. S. L. (1990). Maternal Beliefs about adaptive and maladaptive social behaviors in normal, aggressive, and withdrawn preschoolers. *Journal of Abnormal Child Psychology, 18*, 419-435.

Rubin, K. H., Stewart, S.L., & Chen, X. (1995). Parents of aggressive and withdrawn children. In M. Bornstein (Ed.), *Handbook of parenting* (Vol.1, pp. 255-284). Hillside, NJ: Lawrence Erlbaum.

Rudy, D., & Grusec, J. E. (2001). Correlates of authoritarian parenting in individualistic and collectivistic cultures and implications for understanding the transmission of values. *Journal of Cross-Cultural Psychology*, *32*, 202–212.

Rudy, D., Grusec, J. E. (2006). Authoritarian Parenting in Individualistic and Collectivistic Groups: Associations With Maternal Emotion and Cognition and Children's Self-Esteem Journal of Family Psychology, 20, 68-78.

Sabatelli, R. M., & Mazor, A. (1985). Differentiation, individuation, and identity formation: The integration of family system and individual developmental perspectives. Adolescence, 20, 619-633.

Sanson, A. (1994). Parenting questionnaire for 3-7 year olds. Unpublished Manuscrript. Melbourne: University of Melbourne.

Schaffer, H.R. & Crook, C.K. (1980) Child compliance and maternal control techniques. *Developmental Psychology*, 16, 54-61.

Schaefer, E. S. & Edgerton, M. (1985). Parent and child correlates of parental modernity. In I. E. Sigel (Ed.), Parental belief systems (pp. 287-318). Hillsdale, New Jersey: Lawrence Erlbaum Associates, Inc.

Shek, D. T. (2007). Perceived parental behavioral control and psychological control in Chinese adolescents in Hong Kong: a replication. Adolescence, 42, 569-74.

Siegel, S. (1956). Nonparametric statistics for the behavioral sciences. New York: McGraw-Hill.

Silk, J. S., Morris, A. S., Kanaya, T., & Steinberg, L. (2003). Psychological control and autonomy granting: Opposites of a continuum or distinct constructs? *Journal of Research on Adolescence, 13*, 113-128.

Smetana, J. & Daddis, C. (2002). Domain specific antecedents of psychological control, Parental monitoring, and adolescent autonomy: The role of parenting beliefs and practices. Child Development, 73, 563-580.

Steinberg L. (2005). Psychological control: Style or substance? New Directions for Child and Adolescent Development. 2005, 71 – 78.

Strassberg, Z., Dodge, K., Petit, G. S., Bates, J. E. (1994). Spanking in the home and children's subsequent aggression toward kindergarten peers. *Development and Psychopathology, 6,* 445-461.

Timmer, S., Borrego, J., & Urquiza, A. J. (2002). Antecedents of coercive interactions in physically abusive mother-child dyads. Journal of Interpersonal Violence, 17, 836-853.

Webster-Stratton, C., & Reid, M. J. (2003). Treating conduct problems and strengthening social and emotional competence in young children (ages 4-8 years): The dinosaur treatment program. *Journal of Emotional and Behavioral Disorders, 11(3),* 130-143.

Werba,B. E., Eyberg, S. M. Boggs, S. R. & and Algina, J. (2006). Predicting outcome in parent-child interaction therapy: success and attrition. *Behavior Modification, 30,* 618-646.

Wicks-Nelson, R., & Israel, A.C. (2003). Behavior disorders of childhood. Upper Saddle River, New Jersey : Prentice Hall, 2003.

Wood, J. J., Cowan, P. A. & Baker, B. L. (2002). Behavior problems and peer rejection in preschool boys and girls. *The Journal of Genetic Psychology, 163,* 72-88.

Wu, P., Robinson, C. C., Yang, C., Hart, C. H., Olsen, S. F., Porter, C. L., Jin, S., Wo, J., Wu, X. (2002). Similarities and differences in mothers' parenting of preschoolers in China and the United States. *International Journal of Behavioral Development*, *26*, 481-491.