

Role of Parenting and Self-Types on Intentional Self- and Emotion
Regulation in Adolescence

By

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ABSTRACT

The purpose of this thesis is to examine the relations between self-regulation, self-types and parenting practices in early adolescence. More specifically, we focus on the intentional self- and emotion regulation abilities of early and middle adolescents, and we investigate the role of parental autonomy granting, psychological and behavioural control, and acceptance of parental control in this process. We also consider the effect of two self-types which are the autonomous self-in-family and the related self-in-family. Socio-economic status (SES), gender of the parent and age are the other factors that are included to reveal their possible effects. Data was collected from 259 adolescents from different ages and economic backgrounds. Intentional self-regulation is assessed through a tripartite model called *Selection-Optimization-Compensation* (S-O-C). Results showed that both age groups represented their intentional self-regulation skills with the same global structure instead of the tripartite structure. Additionally, boys are better at this skill compared to girls. Structural equation model analyses demonstrated that intentional self-regulation was associated positively with autonomous self-type, psychological control and negatively with related self-type. Emotion regulation was associated positively with related self-in-family only. Autonomy granting and behavioural control did not have any effect on any of the variables. Variations were observed in the strength of the proposed relations for different SES groups, gender of the parent, and age.

Keywords: intentional self-regulation, emotion regulation, adolescence, autonomy granting, parental control, autonomous self, related self

ÖZET

Bu tez çalışmasının amacı erken ergenlikteki öz düzenleme, benlik çeşitleri ve ebeveyn davranışları arasındaki ilişkileri incelemektir. Daha ayrıntılı bir deyişle, ebeveynin özerklik destekleyici davranışlarının, psikolojik ve davranışsal kontrollerinin ve ergenlerin bu kontrolü kabullenmesinin erken ve orta yaştaki ergenlerin hedefli öz düzenleme ve duygu düzenleme yeteneklerinin üzerindeki etkileri üzerinde yoğunlaşmıştır. Özerk ve ilişkili benlik çeşitlerinin de ergenlerin bu yeteneklerine ne gibi katkıları olduğu araştırılmıştır. Sosyo-ekonomik düzey (SED), ebeveynin cinsiyeti ve ergenin yaşı da göz önünde bulundurulmuş diğer faktörlerdir. Veriler farklı yaş ve ekonomik gruplardan gelen 259 ergenden toplanmıştır. Hedefli öz düzenleme, *Seçim*, *Optimizasyon* ve *Telafi* (Selection-Optimization-Compensation) gibi süreçleri içeren üçlü bir model kullanılarak ölçülmüştür. Erken ergenlerin, orta yaştaki ergenlere kıyasla, bu üçlü süreci ayrı ayrı yaşamaktan daha çok tek bir süreçmiş gibi yaşadıkları önerilmiştir. Sonuçlar, hedefli öz düzenleme yeteneğinin her iki yaş grubunda da tek bir süreç olarak görüldüğünü, ve erkeklerin kızlara oranla daha yüksek bir hedefli öz düzenlemeye sahip olduğunu ortaya çıkarmıştır. Yapısal denklem modeli ile yapılan analizlere göre özerk benlik ve psikolojik kontrol hedefli öz düzenlemeyi olumlu, ilişkili benlik ise olumsuz şekilde etkilemektedir. Ayrıca, duygu düzenleme sadece ilişkili benlik ile olumlu bir ilişkisiye sahiptir. Değişkenler arasında önerilen bu ilişkilerin ağırlıklarının SED, ebeveynin cinsiyeti ve ergenin yaşına göre değişkenlik gösterdiği de bulgular arasındadır.

Anahtar Kelimeler: hedefli öz düzenleme, duygu düzenleme, ergenlik, özerklik, ebeveyn kontrolü, özerk benlik, ilişkili benlik

DEDICATION

To My Family

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Chapter 1

INTRODUCTION

The purpose of the present study is to investigate the relations between self-types, parenting behaviours and self-regulation skills of adolescents in Turkey from different backgrounds. More specifically, we will examine the role of autonomy and relatedness as components of a self-construal; parental autonomy granting, psychological control, behavioural control and adolescents' perceptions about parental behaviours as components of contextual factors on the intentional self- and emotion regulation abilities of early and middle adolescents. We will consider whether the socio-economic status of this population, age, and gender of participants and parent would possibly interact with the relationships listed above. Therefore, the main questions in the current study are “what is the structure of intentional self-regulation in adolescence?”, “how self-types (autonomous self-in-family and related self-in-family) influence the development of intentional self- and emotion regulation in early and middle adolescence?” and “what kinds of parental behaviours support or interfere with the process of intentional self- and emotion regulation?”

Human development consists of different succeeding periods. In the past, childhood was assumed as the only period that substantial changes occur because majority of brain development takes place in this period (Blakemore, 2008). However, with the invention of new brain imaging methods such as MRI, fMRI or EEG, this common belief was replaced with new facts. Thanks to these new methods, it was seen that brain undergoes dramatic development during adolescence. The connections between the synapses that are being used are strengthened while the synapses that are not being used are pruned (Blakemore, 2008). These strengthening and decline in the brain regions is a mutually interactive process that is formed by the changes in the self and environment and shape these two constructs in turn.

Adolescence is a transitional period between childhood and adulthood and covers the ages between 10 and 18. Now, it is a known fact that many multidimensional changes and developments occur in adolescence. The emergence and development of new cognitive structures, social- and self-concepts, physical growth, sexual maturity, formulation of morality and identity, and sophisticated relationships with adults and peers take place during this period (Gestsdottir & Lerner, 2008). These developmental changes do not occur in an isolated context, it is influenced by the contextual factors such as peers and parents, and by the cultural factors such as the role of adolescents in society and perceptions of media. Early adolescents, from 10 to 12 years of age, are especially vulnerable to these external factors because it is the beginning of the transition and they stand a new role. Besides the changes that occur within adolescent psychological and physiological systems, the behaviours of others like parents, relatives and teachers are also modified such that adolescents are treated as children and adolescents as well.

Adolescence is seen as a storm and stress period. This is partly due to these social and physiological changes that result in confusion. As a result, adolescents are prone to develop risky behaviours that might influence the rest of their lives. They are susceptible to engage in activities like drug addiction, smoking, delinquency, school dropout, sexual abuse, and peer pressured crimes and illegal activities (Bowers et al., 2011). Despite these unfavourable facts, not all the things that occur during this period bring negative outcomes. Adolescents also have the chance to advance in a positive way. Present study will focus on two regulatory skills that promote positive development. These two regulation mechanisms are intentional self- and emotion regulation that emerge early in life and keep developing throughout adolescence. Intentional self-regulation is defined as “contextualized actions that are actively aimed towards harmonizing demands and resources in the context with personal goals in order to

attain better functioning and to enhance self-development” (Gestsdottir & Lerner, 2008, p. 204) while emotion regulation is defined as “the extrinsic and intrinsic processes responsible for monitoring, evaluating, and modifying reactions to accomplish one’s goals” (Thompson, 1994, p. 27-28).

These two regulatory skills might be influenced by some features that are related to self and parents. Regarding self, Kağıtçıbaşı (2005) identified several components of self-construal that are shaped in the family depending on the cultural values. These components or self-types are autonomous self-in-family, related self-in-family, and autonomous-related self-in-family. Two of these components will be examined in this study. However, development of intentional self- and emotion regulation is not a process that happens in an isolated environment. Parents have a great importance in shaping this development. Therefore, we identified several parental variables that either promote or interrupt with regulation skills of adolescence. Parental promotion of autonomy might promote the development of self-regulation while parental psychological control and behavioural control might interfere with this process. On the other hand, beliefs of adolescents about the legitimacy of their parents’ behaviours would change their perceptions and the negative effect of these parenting behaviours would lessen.

Considering the points above, the current research will focus on the development of regulatory skills of early adolescents, self-types and parenting behaviours that either interfere with or assist this development. In other words, we will examine the interaction of self-related constructs with social context in early adolescence.

Chapter 2

LITERATURE REVIEW

In this section theoretical background and empirical support about proposed model and research questions will be presented.

2.1 Self-Regulation

Self-regulation is the contribution of individuals to their own developmental regulation (Gestsdottir & Lerner, 2007). In other words, it is an ability used for achieving personal goals by activating, pursuing, inhibiting, resisting and adapting the behaviour, attention, emotions and other cognitive functions regarding internal and environmental cues and feedback from other people (Moilanen, 2007). As can be seen in the definition, self-regulation covers lots of sub-functions so it has different formulations. For example, while some authors have defined self-regulation as a temperamental feature that is the ability to control impulsivity (Capaldi & Rothbart, 1992; Rothbart & Bates, 1998), others have defined it as an internal process that involves the modulation of thought, attention, affect and behaviour to guide their goal directed behaviours (Karloly, 1993; Raffaelli, Crockett & Shen, 2005). Although differently described, these operations have more similar features than their discrepancies and end up with similar consequences.

Self-regulation is a capacity that emerges very early in life and display a lifelong development (Lerner, Freund, De Stefanis & Habermas, 2001; Moilanen, 2005). Although in infancy, babies are dependent on their caretakers, they show the first signs of self-regulation around six months. This other-dependent self-regulation turns into a co-regulation which is the period that toddlers can initiate self-regulatory actions with the assist of caretakers. This

period is followed by a phase that preschool children internalize the rules and behave accordingly in the absence of adults (Moilanen, 2005). One of the examples for this internalized self-regulation capacity is delay of gratification, an experimental condition in which participants are expected to wait for a certain amount of time to gain a better reward (Olson, Bates & Bayes, 1990). By late childhood and early adolescence, individuals have better planning skills, so they are capable of setting long-term goals (Demetriou, 2000). The development of self-regulation is tied to improvement in other processes such as cognitive capacity, language (Kopp, 1982), memory, self-efficacy, self-monitoring, and self-control (Karoly, 1993). Therefore, with the development of these relevant processes, we also expect advancement in self-regulation capacity.

Different conceptualizations have been proposed for self-regulation (Gestsdottir & Lerner, 2008; Moilanen, 2005). A full review of all conceptualizations is beyond the current study; therefore we will only focus on self-regulation types defined and elaborated by Gestsdottir and Lerner (2008). Zimmerman, Phelps and Lerner (2007) posit that self-regulation occurs through different processes as organismic and intentional self-regulation. The former are the biological and physiological functions that are under no or limited control of the person. Pubertal change, cognitive development, hypothalamic functions and temperament are some examples of these changed functions that help individuals in their interaction with environment (Gestsdottir & Lerner, 2008; Zimmerman et al., 2007). The latter, which are the centre of the healthy human functioning, are the actions of individuals that aim to construct a balance between demands and environmental resources. Intentional self-regulation is characterized by goal-directed actions and mostly take place at a conscious level (Gestsdottir & Lerner, 2008; Zimmerman et al., 2007). The current study will cover two

types of self-regulation which are related to the social development of humans and these are intentional self-regulation and emotion regulation.

2.1.1 Intentional Self-Regulation

Recently, researchers have defined *intentional self-regulation* as a new category under self-regulation abilities of young adults. It mostly constitutes goal directed behaviours that are consciously planned (Zimmerman et al., 2007). It is a skill for which individuals have to set certain goals, to make plans, to achieve those goals, and also to see the outcomes of their actions (Bandura, 1991). Recently, Lerner et al., (2001) adapted a model proposed by Freund and Baltes (2002) to operationalize the intentional self-regulation ability for early adolescents. In its original formation, this tripartite model is used for successful aging through goal maximization and loss minimization (Freund & Baltes, 1998). The goal related actions that constitute these three processes of self-regulation are *selection*, *optimization* and *compensation* (S-O-C). Selection is the capacity of individuals in giving direction to their own development. It is the way that individuals choose, expand, practice and commit to a goal. Two types of selection are elective and loss based selection. Elective selection is the way people choose a specific goal for themselves from an unlimited range of goals and canalize their efforts to succeed in this goal. The second, loss based selection, is the renewed adaptive actions of individuals when there is a loss in goal related means. The second process in this tripartite model is optimization that is constructing strategies and benefiting from sources to achieve one's goal. This process requires constant attention and monitoring of individuals between their goals and reality. Compensation, the last process of intentional self-regulation, is practising alternative means to achieve the set goal when there is a loss or a decline in goal relevant means (Gestsdottir and Lerner, 2007). These are three malleable processes of intentional self-regulation that are seen either as an integrative process or as separate

processes (Freund & Baltes, 1998). Even though these processes are clearly differentiated from each other in adults, in adolescence this differentiation may not be observed (Zimmerman et al., 2007). Adolescents may not apply distinct strategies for selection, optimization and compensation, even though they display an overall intentional self-regulation skill. As a result, the time period in which intentional self-regulation exists as a tripartite model is not clearly evidenced with much research.

Originally, researchers considered intentional self-regulation as a construct that is observed in adulthood (Gestsdottir & Lerner, 2007). The examination of this construct in early adolescence is relatively new in developmental psychology literature. It is involved in the adolescent literature when researchers, who are aware of the sensitivity of adolescents to external factors, have developed different intervention programs concerning support for the development of adolescents. These programs differ from each other in their focus of attention. One of these, the prevention science approach, perceives adolescence as a risky period and tries to prevent adolescents from developing risk taking behaviours by focusing on individual and environmental factors (Bowers et al., 2011). The positive youth development approach (PYD), on the other hand, believes in the existence of strengths in every individual and tries to promote a positive development for adolescence through focusing on these strengths (Mueller et al., 2011). Intentional self-regulation is one of the main foci of these different intervention programs because this ability of goal selection and achievement elicits some positive outcomes.

The importance of gaining the intentional self-regulation ability in early adolescence is evidenced by research that concerns intervention programs. For example, Gestsdottir and Lerner (2007) found a positive relationship between S-O-C and Five C's (competence, confidence, caring, connection and character) which are indicators of PYD. On the other

hand, according to this study, a negative relationship exists between S-O-C and risk taking behaviours in early adolescence (5th, 6th grades). In addition, the longitudinal effects of intentional self-regulation were also supported. Researchers found that the S-O-C scores at 5th grade predicted PYD in 6th grade. In another study, Schmid, Phelps and Lerner (2011) revealed that intentional self-regulation and hopeful future expectations together predicted adaptive developmental regulations in 7th, 8th and 9th grades. These studies support the presence and positive outcomes of intentional self-regulation in adolescence as well as in adulthood.

Gestsdottir and Lerner (2007) identified an undifferentiated S-O-C process in early adolescence unlike in adulthood. The proposed tripartite model is observed as a global process in which the three components of intentional self-regulation process are not differentiated as suggested by Freund and Baltes (2002). The results of a previous study by Zimmerman et al. (2007) supported this claim in which analyses showed that although undifferentiated, S-O-C scores at grade 5 positively predicted positive youth development, and negatively predicted depression, delinquency and risk taking behaviours at grade 7. Lerner et al. (2001) suggests that for a successful development, three process of S-O-C should be coordinated. Goal selection process begins only if necessary resource exists to optimize the goal. Besides, compensation process is activated when the individual realizes errors in optimization process. Therefore, an integrative process of S-O-C is not that much unexpected. However in another study Gestsdottir et al. (2009) found a differentiated model of S-O-C from 8th to 10th grades. These stages are represented in the tripartite structure after a certain age. In the light of this information, the present study examines whether intentional self-regulation is a construct that is present in early adolescence and uses the tripartite model proposed by Freund and Baltes (1998) while investigating its structure. The structure of

intentional self-regulation skill regarding S-O-C model in adolescence is relatively new in the literature and such a study involving a Turkish adolescent sample is not conducted before. We will try to fill these listed gaps in the literature with the current study.

2.1.2 Emotion Regulation

Another concept in which adolescents can display their regulatory skills is emotion regulation that is the ability of inhibiting a dominant feeling and displaying a manipulated emotional reaction instead (Gross, 2002). Regardless of the valence of the emotion, either positive or negative, individuals can regulate their emotions up or down depending on the situation. This is an ability that develops early in individuals. However, as people grow older, their emotion regulatory skills get better. In infancy, babies rely on extrinsic emotion regulation strategies applied by their caregivers. One of the few intrinsic emotion regulation ability in this period is self-soothing. In childhood, they show improvements in emotion regulation skills because they now have more advanced cognitive, linguistic and motor skills. In adolescence, physical, social and academic changes lead adolescents to turmoil. During this transition period, adolescents might reject extrinsic emotion regulation strategies especially by their parents because of their need for autonomy. Since their pre-frontal cortex develops at the same time, they are successful at producing new emotion regulation strategies. Later in life, people prefer to focus on positive emotions rather than negative ones as an emotion regulation strategy (Gross, 2013).

In a cross cultural study, Gross et al. (1997) revealed the fact that emotional control pattern differs across ages. Older participants reported less negative affect and more emotional control over their behaviours compared to younger participants in the study. Tottenham, Hare and Casey (2011) also found that emotion regulation ability improves with age in a study that compares children, adolescents and adults. This is because several

biological and environmental mechanisms are included in the development of this ability. Neural networks such as amygdale, prefrontal cortex, hypothalamic-pituitary-adrenocortical (HPA) system, vagal tone; cognitive development as working memory capacity and temperamental features of humans; and their social contexts such as parental socialization and peer relations are factors that contribute to emotion regulation (Morris, Silk, Steinberg, Myers & Robinson, 2007; Opitz, Gross & Urry, 2012; Zeman, Cassano, Perry-Parrish & Stegall, 2006). As people age, these neural networks and social factors become more and more activated during emotion regulation.

As well as age, emotional control is influenced by some other factors such as gender and culture. Different genders are allowed to display different emotions and it is shaped by culture (Cassano, Perry-Parrish & Zeman, 2007). Several factors such as reactivity level and parental attributions in socialization of individuals might lead to this discrepancy between two gender. First, because boys are more reactive compared to girls, girls are better at emotion regulation. Second, parental expectations are different for their children according to their gender and these expectations also shape how they socialize their children. While boys are reinforced to display their anger rather displaying any other emotions, girls are reinforced to display sadness (Morris et al., 2007). As well as gender, emotional socialization of children is also influenced by cultural values. Parental behaviours, emotional climate within a family, reactions of the others are the elements shaped by culture and shapes emotion regulation abilities of children in turn. Because we cannot compare inter-cultural variations in the current study, we will include the impacts of intra-cultural variations over emotion regulation (Saarni, 1990). We will provide more information about these variations in the following sections.

In cognitive or behavioural level, different emotion regulation strategies are used by humans. Gross (2001) identified and explained these emotion regulation strategies in detail. These are situation selection, situation modification, attentional deployment, cognitive change

and response modification. The literature focuses on the last two strategies as most frequently used ones. First, reappraisal which is under the cognitive change category is the modification of the emotional responses early in the emotion-generative process by re-interpreting the situation so altering the experienced emotion (Goldin, Mcrae, Ramel & Gross, 2007; Gross, 2001). This strategy changes the behavioural responses of people by reshaping their perceptions. Changing the perception during emotion generation process does not cost any other cognitive load for individuals. Therefore, reappraisal saves individuals' energy for other mechanisms and is associated with positive outcomes.

On the other hand, suppression, another strategy that is under the category of response modification, occurs later than the emotion-generative process. It is basically inhibition of the dominant emotion-laden behavioural response without any change in its cognition. These modified responses might include the verbal utterances, facial expressions or gestures. Because this strategy changes the emotional response only superficially and the experience of emotion remains the same, it is an unhealthy way of emotion regulation. In suppression, people need extra energy not to show how they actually feel. For an effective emotion regulation, both the experience of emotions and its behavioural outcomes should be manipulated. This inconsistency between cognition and behaviour, as in the case of suppression, results in negative outcomes (Gross, 2001).

Emotion regulation is a healthy human function that positively contributes to the mental and physical health when proper strategies are applied (Ochsner, Bunge, Gross & Gabrieli, 2002). It can enhance the psychological and physical well-being, cardiovascular health outcomes, interpersonal functioning as well as emotion control (Gross, 2013; Gross & John, 2003). However, overuse of some emotion regulation strategies such as suppression results in negative functioning like depressive symptoms, lack of control over emotions and impaired memory (Gross, 2001). For example, in a study, Davidson (2000) showed that

ineffective emotion regulation strategies lead individuals to impulsive aggression and violence. Gross (2002) has also reported that suppression results in overactivation of parasympathetic system and this overactivation interferes with memory encoding phase during emotional situations. People who use suppression as a regulation strategy cannot recall details of the situation that is to be remembered.

In the current study, we prefer to examine anger manipulation of adolescents because of its significant contribution to adolescents' relations with others in social context. Anger is an important emotion that might have immediate and long term negative consequences if not controlled. For example individuals who have difficulties in controlling their anger are more likely to represent a negative psychosocial and physiological profile (Clark, Novak & Dupree, 2002). As stated, these favourable or unfavourable profiles of adolescents can be noteworthy in predicting their social competency. Additionally, parental socialization has a crucial effect on the ability of emotion regulation in adolescence. Adolescents might benefit or suffer from the parental behaviours and we will try to identify these socialization factors.

These two self-regulation skills are affected by several factors such as parents, promoted self-types in family, SES and age. Therefore, we will have a perspective of 'interactive process' while analysing regulation abilities of adolescence and include listed variables into our study and provide information about this interaction process in following sections.

2.2 Parenting

According to Bronfenbrenner's model of ecological systems (1999), the development of a human being occurs through interaction with the environment. While a child is in the centre of this developmental system, social environments like parents, peers, society, and media construct the micro and macro systems (Özdemir, 2009). Considering this ecological

system model, the role of parenting in self and emotion regulation ability of adolescents is frequently examined (Chapman & Mullis, 1999; Clark, Novak & Dupree, 2002; Finkenauer, Engels & Baumeister, 2005; Melnick & Hinshaw, 2000). Research has found that different parenting dimensions can predict various self and emotional outcomes in adolescents (Kağıtçıbaşı, 2007). Particularly, two dimensions of parental control -behavioural and psychological- and autonomy granting behaviours of parents specify the way adolescents develop their regulatory skills (Perez & Cumsille, 2012). Although adolescence is a period in which peers become more important than parents (Bariola, Hughes & Gullone, 2012; Gross, 2013), parental behaviours still maintain their effect on children. In this period of life, adolescents question the authority of their parents have on them, spend relatively more time outside of home compared to childhood, and their peers become important actors in their lives and decisions. However, the best way of an adolescent's development is to have close relations with parents while experiencing and gaining an autonomous self (Sayıl et al., 2012).

2.2.1 Definitions of Types of Parental Control and Autonomy Granting Behaviours

Parental psychological control is parental behaviours such as guilt induction, manipulation of the child's thoughts and intrusiveness that interfere with the psychological and emotional development of the child such as thinking process, self-expression, attachment to the parents and emotions. Parental behavioural control, on the other hand, constitutes parental practices that control and manage the behaviours of a child (Barber, 1996; Kuhn & Laird, 2011). Last parenting variable, autonomy granting, is the behaviours of parents that allow their children to social interactions so that they can be aware of different perspectives and let them make their own decisions with moderate levels of interruptions (Padilla-Walker, Christensen & Day, 2011). Two of these parenting behaviours, psychological control and autonomy granting, might be two of the dimensions that are related to autonomous behaviours

of adolescents (Soenens & Vansteenkiste, 2005; Deci & Ryan, 2000) while an association is expected between behavioural control and emotion regulation.

2.2.2 Parental Behaviours and Intentional Self-Regulation

In previous sections, we explained the intentional self-regulation skills of adolescents. While adolescents set certain goals for themselves, they might ask for the opinions of other people to decide on a goal suitable for them and they can get help from their parents to achieve the set goal. This procedure might occur in a family climate either autonomy or control is dominant. In this section, we will define the relationships between parental control, autonomy granting and intentional self-regulation.

In autonomy granting families, children are the initiators of their actions and they take the responsibility of progresses and outcomes of their behaviours. This is in a way similar with intentional self-regulation. Therefore, developed autonomous behaviours promoted by autonomy granting behaviours of parents as well as low psychological control practices might lead to occurrence of intentional self-regulation in adolescents. Barber (2001) proposed that autonomy granting and parental psychological control are opposite constructs on a continuum. However, Silk, Morris and Steinberg, (2003) evidenced that these are not opposite but distinct constructs. According to the results of confirmatory factor analysis, there is a low correlation between these constructs and these parenting dimensions affect different developmental aspects of the adolescents while growing up. Only one of these two parenting behaviours - high parental psychological control- has been found to be related to the development of internalizing problems like depression and anxiety while the development of self-competence is affected by both parenting dimensions.

Research provides evidence for the effect of parental psychological control and autonomy granting behaviours on self-regulation (Silk et al., 2003; Barber, 1996). While

parental autonomy granting leads to positive outcomes in adolescents such as academic achievement (Kurdek, Fine & Sinclair, 1995), self-esteem (Allen, Hauser, Bell & O'Connor, 1994), social-competence (Silk et al., 2003), psychological control brings negative outcomes like internalizing behaviours (Barber, 1996; Barber & Harmon, 2002; Finkenauer et al., 2005; Mazzaide et al., 1990; Perez & Cumsille, 2012). To show the effect of parenting on the self-regulation of early adolescents, Brody and Ge (2001), in one of their longitudinal studies, examined the links between parenting, youth self-regulation, youth psychological functioning and alcohol use. According to the results of this research, while nurturing and responsive parenting style are positively related to youth self-regulation; harsh and conflicted parenting practices show negative relations. Additionally, parenting and youth self-regulation mutually predicted each other in continuing years. Other studies have shown the role of psychological control in autonomy development and indicated that high level of perceived parental control is associated with low levels of autonomy (Kuhn et al., 2011; Perez & Cumsille, 2012).

Although there is some evidence about the effect of certain parenting practices on self-regulation and autonomy development (Purdie, Carroll & Roche, 2004; Strage, 1998), some parental dimensions still need to be further investigated. For example, there is not enough examination of the relationship between parental psychological control and autonomy granting and intentional self-regulation in early adolescence. Considering the positive outcomes of parental promotion of autonomy granting, in the current research, we hypothesize that providing room for the selection of their own actions and allowing them to make their own decisions might help adolescents in developing intentional self-regulation. In the intentional self-regulation process, adolescents need to select their own goals and benefit from different options to succeed in it. This occurs only if adolescents were familiar with such a process in their everyday lives before. On the other hand, if adolescents are strictly controlled by their parents, they might not have the opportunity to select their own goals and

develop various strategies to be successful. These kinds of failures occur when parents apply psychological control on their adolescents. Therefore, high levels of psychological control might lead to underdeveloped intentional self-regulation ability.

2.2.3 Parental Behaviours and Emotion Regulation

The other self-regulation ability that is being examined in the current study is emotion regulation. We briefly mentioned how emotion regulation develops as an interactive process; here we will expand the interaction between emotion regulation and parental behaviours.

For the interplay of emotions and parental behavioural control, the literature generally suggests that applying a moderate level of behavioural control helps children to regulate their intense emotions. Children and adolescents who lack parental control display more emotional and behavioural problems. This might be because parents help their children in gaining emotion regulatory skills through direct and indirect ways. They can either be models for emotion regulation, or give feedback to their children about their behaviours while verbally discussing their children's emotions (Zeman et al., 2006). For example, in a study, Mazaiede et al., (1990) found that if adolescents with anger frustration also lack parental behavioural control, they display higher levels of externalizing problems than adolescents with the same characteristics but with an appropriate level of behavioural control applied by their parents. Furthermore, Melnick and Hinshaw (2000) found a positive relation between emotion-related parenting behaviours and coping strategies while Zhou, Eisenberg, Wand and Reiser, (2004) found an association between authoritarian parenting and low effortful control that is a similar concept with emotion regulation and high dispositional anger among Chinese children.

However, the positive effect of parental control on emotion regulation abilities of children is not robust. For example Morris et al. (2007) states that negative parenting behaviours such as hostility, psychological control, negative control and lack of sensitivity are

related to poor emotion regulation abilities in children. In addition, Finkenauer et al., (2005) found a positive relation between strict parental control and adolescents' emotional and behavioural problems in adolescents from Netherland. Adolescents who perceive their parents as restrictive and behaviourally controlling are more likely to display delinquency, aggression, depression, stress and low self-esteem. The reason why parental control has not the same negative effect on adolescents might be explained with the way adolescents perceive the behaviours of their parents. As shown in Rohner and Pettengill (1985), while North American youths perceive strict parental control as a reflection of parental hostility and rejection, adolescents in Korea perceive these behaviours as signs of parental warmth and low neglect. The underlying justification for this difference might root in the culture which will be explained in the following section.

These controversial findings lead us to think that two parenting control variables affect the emotion regulation differently while other factors might play a role for this relationship. Therefore, we expect a positive association between behavioural control and emotion regulation and a negative relation between psychological control and emotion regulation. Additionally, other factors such as culture, gender of parents and SES might change or mediate this relationship.

2.2.4 Legitimacy Beliefs about Parental Behaviours and Gender of Parent

The exact relation between parental behaviours and adolescent outcomes is not a clear pattern due to various external factors affecting this association. This is due to changes in the normativeness of parenting practices in each culture. Different cultures set different parental behaviours as norms, the perception of children is shaped accordingly, and the child outcomes differ in terms. In a cross cultural study where six different cultures were compared in a sample of participants aged between 6 and 17, Lansford et al. (2005) found the normativeness

of physical discipline as a moderator between parenting physical discipline and child adjustment. In cultures where the perceived normativeness of physical discipline is high, it did not result in adverse child outcomes such as aggression and anxiety as much as in cultures where perceived normativeness of physical discipline is low. Baldwin, Baldwin and Cole (1990) also found a negative relationship between parental restriction and academic outcomes in European-Americans but this relationship is positive in African-Americans. We proposed that these legitimacy beliefs of the adolescents about the authority of their parents might also change according to intracultural differences that are rooted in the socioeconomic status of the families. Therefore, in the present study, we hypothesize that the effect of parental control on emotion regulation might differ considering adolescents' perception of the normativeness of their parents' practices.

In the current study, we measured parental variables differently for fathers and mothers because literature provides evidence for the variation in the effect of paternal and maternal variables on their off springs. Previous research shows the unique contribution of roles of fathers and mothers to the children's emotion regulation development (Cassano et al., 2007; Fivush et al., 2000; McDowell, Kim, O'neil & Parke, 2002). For example, Bariola et al. (2012) found that children and adolescents aged between 9 and 19 are influenced by maternal use of suppression strategy and modelled this strategy rather than paternal strategies. In the light of such information, we proposed that differences might be observed in the impact of parental variables considering gender of the parent. For this age group, maternal variables might be more effective than paternal variables (Bariola et al., 2012).

2.3 Culture and Types of Selves

The last issue that will be reviewed in this chapter is the types of selves rooted in the culture and family types. We will briefly explain the process in which different selves are being formed.

Variations in parental behaviours and their acceptance within Turkey were demonstrated by the Theory of Family Change by Kağıtçıbaşı (2007). According to the Value of Children study which gave rise to the family models, different social classes value diverse family systems, parent-child interactions and socialization processes according to their socio-economic needs. This variety in their needs leads parents to apply various parenting styles that result in various selves. The first model proposed by Kağıtçıbaşı, the Model of Interdependence, is a result of the culture of relatedness and typical in rural and traditional societies. In this model, parents' childrearing orientation is authoritarian because they require economical dependency and obedience in children. In the cultures of separateness observed in urban-middle class societies, parents generally encourage their children to be independent and autonomous in their thoughts and behaviours; therefore their parenting style is relatively permissive. This is a typical example of Model of Independence which is the second model. The third model proposed by Kağıtçıbaşı, which is seen as the healthiest one among three, is the Model of Psychological or Emotional Interdependence. It reflects the socioeconomic changes of families in cultures of relatedness. This model integrates some features of previous models. Parents provide both autonomy and control at moderate levels over their children which corresponds authoritative parenting. From these three models, different selves are formed and these are related self-in-family, autonomous self-in-family and autonomous-related self-in-family, respectively. As in the case of family type, among these three selves,

autonomous-related self-in-family is accepted as the healthiest one because it fulfils basic human needs.

These intercultural family models can also be applicable within a culture considering the socioeconomic variations among different regions (Özdemir, 2009). Especially in Turkey, lots of variations in social and economic fields, even in the same city, can be observed. While the Family Model of Interdependence is common among low SES families, the Family Model of Independence is common among high SES families. The third model, the Family Model of Emotional Interdependence is observed in middle SES families in which parents are educated and have an average level of income. Therefore, types of selves also vary accordingly. The current study will examine the effects of different types of selves on adolescents' self and emotion regulation considering these selves as an outcome of intracultural variations. We will focus on autonomous self-in-family and related self-in-family as two components of self-construal.

The effect of culture is not only seen in self-types, but also observed in the legitimacy beliefs of adolescents and gender socialization of the parents. The normativeness beliefs of adolescents might differ according to their family model and SES levels. For example, adolescents from low SES might not perceive the strict parental behavioural and psychological control as a limit to their own autonomy because of the commonness of these behaviours in their environment. However, in high SES families, adolescents are more aware of other kinds of parenting behaviours. In addition to youth perception of parenting behaviours, families from high and middle SES, because of their high education levels, might be more aware of the identity development of their children and the importance of autonomy during this process. Thus, they try to provide this freedom of development of autonomy to their children.

Secondly, the gender of the adolescents affects how parents socialize their children and this is again related to cultural factors. Although we explained how gender shapes the behaviours of parents, we will reiterate here its effect regarding culture and SES. Parents socialize their sons and daughters differently due to perceptions of gender differences in their social environments. In an experimental study applied to 3rd and 4th graders, Cassano and Zeman (2010) found in a population from United States that expectations of mothers and fathers about their child's emotion regulation show differences according to the gender of children. Parents expect a higher level of sadness regulation from their sons than from their daughters because it is less acceptable for parent that their boys demonstrate their sadness. Due to this gender stereotype in socialization, children differ at regulating of distinct emotions. Gender socialization differs according to the economic and educational levels of parents. In low SES families, manhood might still be an important phenomenon, so parents who think manhood means being stoic might not want their male children to show emotions which are associated with females. Therefore, males might be free to display certain emotions like anger while sadness is not allowed. This situation is opposite for females because females are more easily accepted if they hide their negative emotions like anger. However, in middle and high SES families, males and females are treated more equally, so these kinds of gender differences might not be observed. The current study will focus on the differences in emotion regulation abilities of children considering different selves and SES levels of the families.

Taking into consideration evidence from the literature, the current study examines four main points, (1) to demonstrate the existence and development of intentional self-regulation and emotion regulation in adolescence, (2) to determine the impact of parental control, autonomy granting behaviours and acceptance of parenting practices over the regulatory skills of adolescents, (3) to explore the effect of type of self on adolescents' regulatory abilities and

(4) to observe how these relations change through gender of parent, age and SES. Although some of the concepts in the present study are well supported by previous findings, some of them still need further investigation. First, because intentional self-regulation in adolescence is a new area, there are limited numbers of studies, especially with early adolescents. Additionally, the time that self-regulation appears is not exactly known. Second, although parent ideation that leads to different parenting behaviours is well-studied, the role of parenting in intentional self-regulation is not known. The intentional self-regulation development should be related to some parental practices such as autonomy granting and psychological control. Third, intentional self-regulation is not examined in a Turkish population before. We consider intentional self-regulation and emotion regulation as an important phenomenon for adolescents' positive development, and decide to analyse their development in an interactive process.

2.4 Research Questions & Hypotheses

2.4.1. Research Questions

1. Does intentional self-regulation exist in early adolescence?
2. What is the structure of intentional-self regulation for different age groups?
3. Do intentional self-regulation skills of adolescents differ regarding their ages or gender?
4. How does perceived psychological control by parents affect adolescents' intentional self regulation?
5. Do autonomy granting behaviours of parents affect adolescents intentional self-regulation?
6. How are the type of selves such as related self-in-family or autonomous self-in-family associated with the level of intentional self-regulation in adolescents?

7. How do perceived parental behaviours such as psychological and behavioural control and the type of self shape adolescents' emotion regulation ability?
8. Does adolescents' acceptance of the control of their parents mediate the link between psychological control, behavioral control, intentional self-regulation and emotion regulation?
9. Do all relationships listed above differ according to SES levels of adolescents, grade and the gender of parents?

2.4.2. Hypotheses

Considering these questions, in the present study, for intentional self-regulation we hypothesize that;

- (1) Intentional self-regulation is seen in early adolescence, because there are occasions for adolescents to choose their own goals, develop strategies and manipulate these strategies if necessary.
- (2) The structure of intentional self-regulation is different for early and middle adolescence. We expect that intentional self-regulation is not seen as in the form of selection-optimization-compensation in early adolescence compared to middle adolescence; rather it is a global process. Tripartite structure of intentional self-regulation is seen in middle adolescence.
- (3) The difference between intentional self-regulation abilities of adolescents can be observed in its level as well as in its structure. Older adolescents have better self-regulatory skills compared to younger adolescents. We also propose that intentional self-regulation skills of adolescents differ with gender. Boys have better intentional self-regulatory skills.

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- (4) The parental practices that affect the emergence and development of autonomous behaviours in adolescents namely, parental psychological control and autonomy granting also shape the development of intentional self-regulation. Considering this, we hypothesize that;
- a) High level of parental psychological control is related to low levels of intentional self-regulation in adolescents.
 - b) Autonomy granting behaviours of parents positively contribute to intentional self-regulation skills of adolescents. We predict that adolescents who get promotion of autonomous thought by their parents have better intentional self-regulation ability.
- (5) The type of selves promoted in a family would also affect the development of self-regulatory skills.
- a) We predict that high levels of autonomous self-in-family leads to better regulatory skills.
 - b) However, we cannot propose a prediction about the relationship between related self-in-family and intentional self-regulation so readily. Adolescents confirm the decisions of their parents when their related self is high. Therefore, a negative association between related self-in-family and intentional self-regulation is expected.
- (6) The perceptions of adolescents about the legitimacy of their parents' practices also affect the relationships among parental control and regulatory skills.
- a) First, the negative effect of psychological control on intentional self-regulation decreases if adolescents accept their parents' control.
 - a) Second, if being related is perceived negatively by this age group, acceptance of parental control lessens the negative effect of related self-in-family on intentional self-regulation.

- (7) These relations between parental, self and intentional self-regulation is affected by SES and change the grade and gender of the parents.
- a) The negative effect of psychological control on intentional self-regulation is weaker in low SES. However, in middle SES, not all adolescents are controlled by their parents, and the ones who are controlled have lower intentional self-regulation.
 - b) We expect that promotion of autonomy and autonomous self-in-family has a stronger effect in middle SES but in low SES this relationship is weaker.
 - c) The negative relationship between related self-in-family and intentional self-regulation is stronger in low SES than middle SES. We also expect that autonomous self-in-family is more effective in middle SES.
 - d) Last, gender of parents changes the strength of relationships between variables. We expect that effects of acceptance of paternal behaviours and paternal autonomy granting are more robust while the effect of maternal psychological control is more robust on self-regulatory skills of adolescents.

Considering emotion regulation, we hypothesized that;

- (8) Emotion regulation abilities of adolescents are also influenced by parental behaviours and type of selves.
- a) We predict that high parental behavioural control leads adolescents to suppress their emotions. Therefore, adolescents who expose higher levels of behavioural control from their parents have higher levels of emotion regulation abilities.
 - b) Adolescents who psychologically controlled by their parents display more negative affect. Therefore, we expect a negative association between psychological control and emotion regulation.

- c) In addition, feeling related to family positively affects the way that adolescents display their emotions, therefore the ones who have higher levels of related self-in-family are better at controlling their emotions to be appreciated by their parents.
 - d) Legitimacy beliefs of adolescents increase the positive impact of behavioural control on emotion regulation.
- (9) Finally, SES affects the strength of relations between parental factors and emotion regulation skills of adolescents. In different SES levels adolescents interpret the behaviours of their parents differently, so their reactions differ.
- a) We predicted that the parental psychological control is negatively linked with emotion regulation in middle SES; however its negative effect lessens in low SES.
 - b) On the other hand, relatedness contributes to emotion regulation abilities in the low SES more than the middle SES.
 - c) For the gender of the parents; we expect that the effect of the paternal behavioural control and acceptance of paternal behaviours are more robust while the effect of maternal psychological control has a more robust effect on the regulatory skills of adolescents.

All these research questions, hypotheses and predictions will be tested in the subsequent sections.

Chapter 3

METHOD

In this chapter, information about preliminary study, features of the sample the measures that are applied, and process of data collection are presented.

3.1. Pilot Study

We performed a pilot test (1) to understand the applicability of the questionnaires for this age (2) to test the reliability of our newly-translated scales and (3) to learn the duration of the test session. Some of our questionnaires were already adopted or developed in Turkish and applied in other studies. However, some of our scales were applied for the first time. To see if these scales are reliable and understandable, we designed a pilot session.

Detailed information about the pilot session and results of the analysis is represented in Appendix A. In total, we analysed six scales in pilot study. In main study, we decided to change one of the scales. The one that was used to measure the emotion regulation ability of adolescents in pilot study was not used in main study because it was too long. Instead we decided to include Difficulties in Emotion Regulation scale.

3.2. Main Study

3.2.1. Participants

Participants consisted of 259 Turkish students from 6th and 8th grades. There were 129 (49.8%) 6th graders and 130 (50.2%) 8th graders. There were 118 (45.6%) female and 141 (54.4%) male students. Four different schools were included into the research. These schools were chosen from different SES levels. Two of the four schools were in Istanbul; Yeniköy Mehmetçik İlköğretim Okulu and Mehmet Sevim Ulusal İlköğretim Okulu. Other two schools

were in Konya; Fatih İlköğretim Okulu and Mehmet Akif İlköğretim Okulu (see Table 3.1). We selected schools from different cities to obtain variety.

Table 3.1

Distribution of Participants across Schools (N=259)

	Frequency
Fatih I.O.O. (Konya)	48 (18.5%)
Mehmet Akif I.O.O. (Konya)	49(18.9%)
Mehmet Sevim I.O.O. (İstanbul)	99 (38.2%)
Yenikoy Mehmetçik I.O.O. (İstanbul)	63 (24.3%)

Note. Percentages are presented in the parentheses.

Students were chosen from different socio-economic status. To calculate the SES level, father education, mother education and income were determined as indicators of SES (see Appendix C). We set the mean value as a criteria to define the SES level. Because high SES level is not well represented in our study, we decided to compose only two SES levels; low SES, middle SES. According to this criteria, 142 (54.8%) students were from low SES while 117 (45.2%) of the total were from middle SES. Table 3.2 shows the distribution of students' parents across education levels.

Table 3.2

Distribution of Participants' Parents across Different Education Levels (N=259)

	Mother	Father
Primary School	128 (49.4%)	90 (34.7%)
Secondary School	58 (22.4%)	50 (19.3%)
High School Dropped	15 (5.8%)	31 (12.0%)
High School or Equivalent Graduate	31 (12.0%)	44 (17.0%)
Bachelors' Degree or Above	22 (8.5%)	38 (14.7%)
Missing	5(1.9%)	6 (2.3%)

Note. Percentages are represented in the parentheses.

Participants aged between 10 and 15 years with a mean of 11.82 ($SD=2.73$). We selected participants from early and middle adolescence. Participants were divided into two groups in analysis considering their grades.

3.2.2. Procedure

To apply the questionnaires to students in the chosen schools, permissions from Ministry of Education was obtained. Four different schools from different areas were included into the research. After the application of all questionnaires in pilot session, actual data collection phase began.

Data from students were collected through self-reports. Students responded the Likert or Harter style scales that measure the perception of adolescents about parenting, self-types, emotion and self-regulation.

Demographic information of the students were also obtained by self-reports and from schools. Scales were either Turkish or adapted into Turkish, therefore the English scales translated into Turkish and back-translated into English to check the accuracy of the items and adapted if necessary.

The scales were distributed to students as booklets. During pilot sessions, it was seen that students can fill the questionnaires in one class hour. Therefore, during actual data collection period, just one class hour was asked from the schools. In two schools, both teachers and the researcher were present during the data collection. Because a pre-permission was obtained, students were not required to sign a consent form. Students were explained the procedure and encouraged for further questions if they do not understand the questions. In other two schools, only teachers administered the questionnaires after they were told the application procedure.

3.2.3. Measures

3.2.3.1. Self-Regulation Scales

3.2.3.1.1. Selection-Optimization-Compensation Questionnaire: To measure three dimensions of intentional self-regulation in adolescents, the S-O-C questionnaire, developed by Freund and Baltes (2002), is used. Each six items measure a different construct as a subscale; however, items are mixed in order to prevent participants from rating the items in a trend. The Selection subscale represents commitment of people to a chosen goal (i.e. *When I decide upon a goal, I stick to it*). The Optimization subscale represents the effort and strategies that are used to achieve the chosen goal (i.e. *I keep trying as many different possibilities as are necessary to succeeding at my goal*). The last subscale, Compensation, represents the ability to change one's strategies when they do not work to reach the chosen

goal (i.e. *When things don't work the way they used to, I look for other ways to achieve them*). The S-O-C subscales have adequate reliability. A study with an adult German sample presented following reliability values for each scale; 0.75 for selection, 0.70 for compensation and 0.67 for optimization (Freund & Baltes, 2002). The scale represented good reliability score in the current analysis with a Cronbach Alpha of 0.88. The items of the S-O-C questionnaire are in a forced-choice format in which participants are represented with two opposite statements for each item. For example, an item from any subscale such as “When they don't succeed right away what they want to do, some children don't try other possibilities for very long” or “ Some children keep trying as many different possibilities as are necessary to succeed at their goal”. The statements of items reflect either S-O-C related strategy as in the latter or non-S-O-C strategies as in the former. The total score is obtained by the sum of chosen S-O-C related strategies for each subscale. In its original form, participants are required to answer on a 5-point Likert scale, however, in current study Harter Scale version will be used and participants will be asked to mark on a 7-point continuum. Items were recoded for the current study, so the higher scores represent higher self-regulation abilities. For the scale applied in the study, see Appendix D. This scale is included in a Turkish research for the first time therefore, the items were translated into Turkish and back-translated into English.

3.2.3.1.2. Difficulties in Emotion Regulation: Originally, it is a 41-item scale developed by Gratz and Roemer (2004) to measure the four dimensions of emotion regulation: awareness of emotions, acceptance of emotions, suppression of impulsive behaviours and engaging in goal-directed behaviours. The current study used a short version that includes 10 items from three subscales: difficulties engaging in goal-directed behaviours (i.e. *When I am angry, I have difficulty in concentrating*), impulse control difficulties (i.e.

When I am angry, I lose control over my behaviours) and limited access to emotion regulation strategies (i.e. *When I am angry, I believe I will remain that for a while*). In the current study, items was modified as reflecting anger rather than upset. Cronbach alpha values of subscales were adequate, over .80 for each (Gratz and Roement, 2004). The scale represented good reliability score also in the current analysis with a Cronbach alpha of 0.76 for 6th grade and 0.70 for 8th grade. Participants was required to rate the items on a 5-point Likert scale ranging from *almost never* to *almost always*. The lower scores represent less difficulties in emotion regulation so better emotion regulation abilities. The items were translated into Turkish and back-translated into English. The scale can be seen in Appendix E.

3.2.3.2. Parental Autonomy Scales

3.2.3.2.1. Autonomous-Related Self –in- Family Scales: To measure the type of self in family context (Kağıtçıbaşı, 2007) two subscales of Autonomous Related Self –in- Family (Kağıtçıbaşı & Baydar & Cemacilar, 2006) scales are used. In the original form, both Autonomous Self –in- Family Scale and Related Self –in- Family Scale consist of nine items. The former represents the independence of self from the family (i.e. *On personal issues, I accept the decisions of my family*). The latter represents the closeness of the self to the family (i.e. *I feel myself to closely attached to my family*). In scale development study, both Autonomous Self –in- Family scale and Related Self –in- Family scale have a Cronbach alpha of 0.84. In another study, the reliability scores of these two subscales were found as 0.81 for Autonomous Self –in-Family and 0.88 for Related Self –in- Family scales in a sample of adolescence (Kaya & Kağıtçıbaşı, 2012). The Related Self-in-Family Scale represented good reliability score in the current analysis with a Cronbach alpha of 0.73 for 6th grade and 0.72 for 8th grade. The Autonomous Self-in-Family Scale also represented good reliability score in the current analysis with a Cronbach alpha of 0.70 for 6th grade and 0.80 for 8th grade.

Considering the skewness problems of Autonomous-Related Self –in- Family Scale, in main study, scales are modified on Harter scale format. Participants were required to sign a point on a seven point continuum between two opposite statements (i.e. *Some children do not become friends with the people whom their families do not approve* vs. *Some children become friends with anyone even if their families do not approve*). While forming the last version of the scale for main study, we also benefited from the analysis of an ongoing research project called Positive Adolescence Development. According to results in that study, some of the items in the scale had low factor loadings. Therefore, three of nine items in Autonomous Self –in- Family Scale (“*I prefer to keep a certain distance in my relationships with my family*”, “*The time that I spend with my family is not important for me*” and “*I don’t enjoy spending much time with my family*”) were excluded. For Related Self –in-Family Scale two of the nine items had low factor loadings (“*I do not have to think the way my family does*” and “*I feel independent of my family*”), so they are removed for the main study.. The scale can be seen in Appendix F.

3.2.3.2.2. Parental Promotion of Autonomy: In Manzi et al. (2012) three different scales were combined to measure the adolescents’ perceptions about their parents’ autonomy granting behaviours. A similar combination is used in the current study. The scales combined in Manzi et al. (2012) were Promotion of Autonomous Thought (Silk et al., 2003), Autonomy Support Scale of the Perceptions of Parents Scale (Grolnick, Deci & Ryan, 1997) and Promotion of Physical Separation Scale (Manzi, Vignoles, Regalia & Scabini, 2006). The first scale consists of 6 items representing how parents promote independent thought in their children (i.e. *My parents emphasize that it is important to get my ideas across even if others don’t like it*). It has an adequate Cronbach alpha ranging from 0.67 to 0.72 (Manzi et al., 2012). Five of these items that are compatible with Turkish culture are chosen for the main

study. The second one, Autonomy Support Scale of the Perceptions of Parents Scale consists of five items. This scale measures how parents let their children make independent decisions (i.e. *My parents, whenever possible, allow me to choose what to do*). Cronbach alpha value of this scale is ranging from 0.83 to 0.90 (Manzi et al., 2012). The scale represented good reliability score also in the current analysis with a Cronbach alpha of ranging from 0.74 to 0.83. The last scale is not used because it does not tap any of the constructs in current study. Participants were required to rate the items on a 5-point Likert scale according to their frequency in last month (ranging from “*never happened at last month*” to the “*everyday*”). Higher scores represent more promotion of autonomy granting behaviours by parents. The scale can be seen in Appendix G.

3.2.3.3 Parental Control Scales

3.2.3.3.1. Parenting Style Scale: It is a 22-item scale developed by Sümer and Güngör (1999). This scale consists of two subscales, strict control and acceptance/involvement. The current study only uses the items of strict control subscale to measure the behavioural control dimension of parenting. Items measure the behaviours of parents that interrupt with the concrete behaviours of their children (i.e. “*My parents don't let me to stay awake until midnight*”, “*My parents interfere my relationships with my friends*”). The reliability scores of strict control subscale were found as .79 for mothers and .90 for fathers (Güngör, 2000). The scale represented good reliability score also in the current analysis with a Cronbach alpha of ranging from 0.75 to 0.81. Two more items are added to scale from another scale developed by the same researcher (Sümer, 2008). In total, participants are presented with 12 items and required to rate the items on a 5-point Likert scale according to their frequency in last month (ranging from “*never happened at last*

month” to the “*everyday*”). Higher scores represent more interruption with the behaviours of participants. The scale can be seen in Appendix H.

3.2.3.3.2. Parenting Behaviours Scale: It is a 52-item scale developed by Sümer (2008). The scale consists seven subscales; intrusiveness, guilt induction, comparison, warmth, rejection, overprotection and psychological control. The scale represented good reliability score in the current analysis with a Cronbach alpha of ranging from 0.78 to 0.84. Eighteen out of 52 items that tap on the parental psychological control are included into current study (i.e. *Does your mother/father escapes from eye contact when they feel disappointed?*). Because there are only two items measuring psychological control in the original scale, some other items are chosen from guilt induction and intrusiveness subscales and added to new questionnaire (i.e. *When you see your mother/father sad, do you think that it is your fault?*). With this scale, we aim to measure the parental behaviours that intend to change the attitudes of children by manipulating them psychologically. Participants were required to rate the items on a 5-point Likert scale according to their frequency in last month (ranging from “*never happened at last month*” to the “*everyday*”). Higher scores represent more psychological control from the parents. The scale can be seen in Appendix H.

3.2.3.3.3. Acceptance of Parental Control: To measure the perceptions of children about the legitimacy of parental control over their behaviours and decisions, Acceptance of Parental Control (Kaya & Kağıtçıbaşı, 2012), a five item scale, is used (i.e. *If my parents are mad at me, this is due to something that I did*). Previous research revealed an adequate Cronbach alpha for the scale (0.76). The scale represented good reliability score also in the current analysis with a Cronbach alpha of ranging from 0.76 to 0.82. Participants were required to rate the items on a 5-point Likert scale according to their frequency in last month

(ranging from “*never happened at last month*” to the “*everyday*”). Higher scores represent more acceptance of parental behaviours. The scale can be seen in Appendix I.

Chapter 4

RESULTS

Data was analysed using IBM SPSS 21 and AMOS 21 programs. The analyses of the current data had three aims: (1) to obtain factor structures and the reliabilities of the administered scales; (2) to see the bivariate interactions between variables and (3) to analyse the proposed relationships between variables. In order to get these results, various analysis procedures were used. The first aim was accomplished using Confirmatory Factor Analysis (CFA) in AMOS and reliability analysis in SPSS. The second aim was accomplished using ANOVA and the third aim was accomplished using Structural Equation Modelling (SEM) in AMOS and by performing ANOVA in SPSS. Before these steps, descriptive analyses were performed to see if data is normally distributed. Also, before analysing the model, we checked the correlations to build the relations among constructs. The analysis will be presented considering this order.

4.1. Confirmatory Factor Analysis

In this section, the results of the descriptive statistics, CFA and reliabilities are presented. The scales were analysed separately for different grades and gender of the parents because meaningful differences can be observed in the factor analysis process. In order to test the models and to determine the goodness of fit, Comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA) and chi-square were used. The critical criteria adopted for each method were as follows: (1) $CFI \geq .90$; (2) $RMSEA \leq 0.05$ and (3) $\chi^2 \geq 0.05$ (Kağıtçıbaşı et al., 2006).

As a prerequisite in AMOS, we had to make sure that there is no missing value in our data. AMOS cannot proceed analysis with missing data. To handle this, expectation-maximization method was used instead of listwise or pairwise deletion. In the listwise deletion, a huge loss in data might occur and in pairwise deletion the number of participants would change for each analysis. Therefore, expectation-maximization (EM) method was preferred. Before replacing missing values with new ones, Little's Missing Completely at Random test was applied. To evidence that data is missing at random, chi square results should be above 0.05. Results of both 6th and 8th graders' data showed that the data is missing completely at random ($\chi^2 (14477) = 8643.70$, $\chi^2 (9680) = 6363.79$, $p > 0.05$, respectively). This means our participants did not respond some of the items but it was not on purpose. After confirming that no identifiable pattern exists, the missing values were replaced with the predicted values of expectation-maximization technique.

The table that presents the descriptive statistics of all constructs was presented in here.

Table 4.1

Descriptive Statistics of Study Variables

	<i>6th</i>			<i>8th</i>		
	<i>Grade</i>			<i>Grade</i>		
	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>
Autonomy Granting-Mothers	3.17	0.78	126	3.18	0.86	128
Autonomy Granting-Fathers	3.09	0.78	122	3.04	0.88	126
Difficulties in Emotion Regulation	2.75	0.79	128	2.73	0.68	130
Psychological Control-Mothers	2.48	0.77	129	2.40	0.76	130
Psychological Control-Fathers	2.23	0.70	124	2.05	0.71	129
Behavioural Control-Mothers	2.71	0.69	129	2.72	0.74	130
Behavioural Control-Fathers	2.58	0.68	121	2.42	0.73	129
Legitimacy Beliefs-Mothers	3.63	1.06	127	3.35	1.10	128
Legitimacy Beliefs-Fathers	3.60	1.06	122	3.18	1.12	127
Autonomous self-in-family	2.77	0.84	128	2.98	0.99	129
Related self-in-family	4.00	0.87	128	4.00	0.78	130
Selection-Optimization-Compensation (S-O-C)	2.54	0.76	128	2.43	0.75	129

4.1.1. Parental Promotion of Autonomy Scale

The first analysis was performed for 6th graders for Promotion Parental Autonomy Scale (Manzi et al., 2012), mother form. It was a 5-point Likert scale consisting ten items

($M=3.17$, $SD=.78$, $N=126$, see Table 4.1). None of the items exceeded the critical threshold for skewness (1) and kurtosis (3).

One factor measurement model contains all 10 items. This scale in its original form consists of two different scales: Promotion of Autonomous Thought and Autonomy Support Scale of the Perceptions of Parents Scale. However, in the current analysis we tried to load all items into one factor called *Autonomy Granting*, because it is the common construct that can be obtained from these two scales.

In the first run, the model did not fit to data ($\chi^2 (35) = 79.19$, $p<0.05$, $CFI=0.79$, $RMSEA=0.09$). Item 1, 2 and 3 had low coefficients and did not significantly load on factor ($r=0.28$, 0.15 , 0.04 , $p>0.05$, respectively). These three items were excluded and the model was run again. In this run, the factor structure yielded a significant fit ($\chi^2 (14) = 17.42$, $p>0.05$, $CFI=0.97$, $RMSEA=0.04$, see Figure 1). The remaining seven items had an adequate fit to construct called autonomy granting 6th graders-mothers.

The second analysis was done for 6th graders-fathers form. All items seemed to be distributed normally ($M=3.09$, $SD=.77$, $N=122$, see Table 4.1). All items were modelled as loading one factor. For the first run, the model did not fit to data significantly ($\chi^2 (35) = 78.78$, $p<0.05$, $CFI=0.78$, $RMSEA=0.09$). As in the case of mother scale, the first three items had low factor loadings ($r=0.29$, 0.17 , -0.101 , $p>0.05$, respectively), so excluded. In the second run, model had a marginal goodness of fit ($\chi^2 (14) = 19.34$, $p>0.05$, $CFI=0.96$, $RMSEA=0.05$). Modification indices showed that the covariance between Item 5's and Item 6's errors was high. Therefore a correlation line between these two errors was added and model was run again. This time, model yielded a significant goodness of fit ($\chi^2 (13) = 11.66$, $p>0.05$, $CFI=1.00$, $RMSEA=0.00$, see Figure 2).

The third analysis was done for 8th graders-mothers ($M=3.17$, $SD=.85$, $N=128$, see Table 4.1). Skewness was normal but there were some problems in the kurtosis of some items (1, 2, 4, 5, 7, 8, 9, and 10). In the first run, model did not significantly fit to data ($\chi^2 (35) = 82.96$, $p<0.05$, $CFI=0.86$, $RMSEA=0.10$). Item 2 had non-significant factor loading ($r=0.10$, $p>0.05$), so it was excluded in the next step. A significant factor structure could not be obtained in the second run ($\chi^2 (27) = 60.65$, $p<0.05$, $CFI=0.89$, $RMSEA=0.09$). Modification indices were checked and found that Item 1, 2, 5, 6, 9 and 10 had high covariance. Therefore correlation lines between error terms of these items were added in the third run (see Figure 3) and a significant factor structure was obtained ($\chi^2 (23) = 28.69$, $p>0.05$, $CFI=0.98$, $RMSEA=0.04$).

The last analysis was for 8th graders-fathers form ($M=3.03$, $SD=.88$, $N=126$, see Table 4.1). None of the items were skewed but some of them exceeded the kurtosis level (Item 1, 4, 5, 7, 8, 9, and 10). In the first run, the model did not fit to data ($\chi^2 (35) = 104.52$, $p<0.05$, $CFI=0.80$, $RMSEA=0.12$). Even none of the items had non-significant loadings, Item 2 and 3 had low regression weights ($r=0.22$, 0.24 , respectively), so they were removed from the model for the next step. In the second run, the model was still not significant ($\chi^2 (20) = 59.59$, $p<0.05$, $CFI=0.88$, $RMSEA=0.12$). The modification indices were checked and it was found that Item 1, 4, 5, 6, 7, 8 and 9 had high covariance, so correlation lines were added. The third run presented a significant factor structure ($\chi^2 (13) = 13.15$, $p>0.05$, $CFI=1.00$, $RMSEA=0.01$, see Figure 4).

4.1.2. Difficulties in Emotion Regulation

This was a scale developed by Gratz and Roemer (2004). First, data of 6th graders was analysed. It was a 5-point Likert scale consisting ten items ($M=2.74$, $SD=.78$, $N=128$, see

Table 4.1). The skewness and kurtosis values of each item were below the critical threshold. Therefore, all items were included into analysis and loaded on one factor. The first analysis resulted in marginal significance ($\chi^2 (35) = 48.23, p > 0.05, CFI = 0.94, RMSEA = 0.05$). Modification indices were checked to see if there was any high covariance between errors of the items. The errors of item 5 and 10 were highly correlated so a line between these two added and model was run again. In this second run, model significantly fit to data ($\chi^2 (34) = 39.44, p > 0.05, CFI = 0.97, RMSEA = 0.03$). This analysis resulted in one factor called *Difficulties of Emotion Regulation* (or *Emotion Regulation*, see Figure 5).

The same model was also run for 8th graders ($M = 2.73, SD = .68, N = 130$, see Table 4.1). According to descriptive analysis, none of the items were skewed but Item 8 and 9 exceeded the critical value for kurtosis. The first analysis resulted in a non-significant model fit ($\chi^2 (35) = 69.97, p < 0.05, CFI = 0.80, RMSEA = 0.08$). All items significantly load on factors ($p < 0.05$), but some items had low factor loadings. Items that had factor loading below 0.4 were removed for the next step (Item 1, 4 and 5). Factor structure fit significantly to data in the second run ($\chi^2 (14) = 17.83, p > 0.05, CFI = 0.96, RMSEA = 0.04$). We obtained a new factor called emotion regulation with remaining seven factors (see Figure 6).

4.1.3. Parenting Behaviours Scale

This was a scale developed by Sümer (2008). Participants responded to this scale separately for their parents. Therefore, four versions of this scale were analysed. The first analysis was done for 6th graders-mothers scale. It was a 5-point Likert scale consisting of 18 items ($M = 2.48, SD = .77, N = 129$, see 4. Table 1). Kurtosis values seemed normal but some of the items exceeded the critical value of 1 for skewness (Item 2, 5, 9, 11, and 12). Nevertheless, these items were kept in the analysis for further modifications if necessary. The

original version of the scale has three factors; intrusiveness, guilt induction and psychological control. However, in the current analysis only one factor was needed and in fact all these factors were part of psychological control construct. Therefore, we modelled all items as loading on one factor called *Psychological Control*.

In the first run, the model did not fit to data ($\chi^2 (135) = 242.15, p < 0.05, CFI = 0.78, RMSEA = 0.07$). Although all items load on factor significantly ($p < 0.05$), some of them had low factor loadings. Therefore, items numbered 1, 4, 6, 8, 9 ($r = 0.27, r = 0.36, r = 0.36, r = 0.30, r = 0.34$, respectively) were removed due to their low coefficients. In the second run, model still could not reach to a significant level ($\chi^2 (65) = 105.30, p < 0.05, CFI = 0.89, RMSEA = 0.07$). Therefore, items that had factor loadings below 0.40 were removed (Item 5 and 15). Model was run again with the remaining items. Factor structure of this model was marginally significant ($\chi^2 (44) = 58.33, p < 0.05, CFI = 0.95, RMSEA = 0.05$). Modification indices were checked to see if any of the error terms had any high covariance. Errors of Item 2 and 11; and 3 and 11 had high covariance, so correlation lines were added between these errors. Factor structure of this new model was found to be significant ($\chi^2 (42) = 42.13, p > .05, CFI = 1.00, RMSEA = 0.005$). Analysis for 6th graders mothers resulted in a new factor called *psychological control* consisting of 11 items (see Figure 7).

The second analysis was performed for 6th graders-fathers. None of the items exceeded the critical value for kurtosis but some of them were found to be skewed (Item 2,3,5,7, 9, 10, 11, 12, 14, and 17). Descriptive analysis also seemed normal ($M = 2.22, SD = .70, N = 124$, see Table 4.1). In the first run, model did not fit to data ($\chi^2 (135) = 317.46, p < 0.05, CFI = 0.63, RMSEA = 0.10$). The items that had low regression weights determined (Item 1, 4, 7, 11) and removed ($r = 0.35, 0.34, 0.28, 0.34$, respectively). In the second run, model still could not reach to a significant level ($\chi^2 (77) = 163.39, p < 0.05, CFI = 0.75, RMSEA = 0.09$).

Therefore, items that had factor loadings below 0.40 were removed (Item 2, 5, 6, 8, 9). The factor structure of this model did not fit to data ($\chi^2 (27) = 62.07, p < 0.05, CFI = 0.85, RMSEA = 0.10$). Modification indices were checked and it was found that the error terms of item 12, 14, 15, 16, 17 were highly correlated. Therefore, correlation lines were added among these errors and factor structure of this last model fit to data significantly ($\chi^2 (23) = 19.87, p > 0.05, CFI = 1.00, RMSEA = 0.00$). *Psychological control* consisted of 9 items for 6th graders-fathers version (see Figure 8).

The third analysis was performed for 8th graders-mother ($M = 2.39, SD = .76, N = 130$, see Table 4.1). Item 2, 3, 5, 9 and 12 were skewed and Item 1, 4, 6, 8, 13, 14, 15 and 16 exceeded the kurtosis level. All 18 items were modelled as loading on one factor, called psychological control. In the first run, model did not fit to data ($\chi^2 (135) = 277.92, p < 0.05, CFI = 0.73, RMSEA = 0.09$). Even though all items significantly loaded on factor ($p < 0.05$), items that had factor loading below 0.4 were excluded for the next step (Item 1, 6, 7 and 8). In the second run, model still did not fit to data ($\chi^2 (65) = 160.80, p < 0.05, CFI = 0.77, RMSEA = 0.10$). Item 2 was also removed due to low regression weight ($r = 0.37$). In the third run, factor structure did not significantly fit to data ($\chi^2 (54) = 117.67, p < 0.05, CFI = 0.83, RMSEA = 0.09$). Modification indices were checked and correlation lines were added between all items except 9 (see Figure 9). Factor structure yielded a significant fit in the fourth run ($\chi^2 (44) = 49.54, p > 0.05, CFI = 0.98, RMSEA = 0.03$). *Psychological control* factor was obtained with 12 items.

The last analysis was administered for 8th graders-fathers ($M = 2.05, SD = .71, N = 129$, see Table 4.1). Item 2, 3, 5, 7, 9, 10, 11, 16, 17 and 18 were skewed. All items except 14, 16 and 18 exceeded critical kurtosis level. In the first run, model did not fit to data ($\chi^2 (135) = 325.03, p < 0.05, CFI = 0.69, RMSEA = 0.10$). All items had significant regression weights ($p < 0.05$), but we removed items that had factor loadings below 0.4 (Item 1, 6 and 7). In the

second run, model still did not fit to data ($\chi^2 (90) = 225.03, p < 0.05, CFI = 0.74, RMSEA = 0.10$). Because we could not obtain a significant model, Item 18 that had the lowest factor loading was removed ($r = 0.40$). In the third run, factor structure did not yield a significant fit ($\chi^2 (64) = 93.26, p < 0.05, CFI = 0.94, RMSEA = 0.06$). Modification indices suggested correlation lines, and in the fourth run these correlation lines were added. We obtained a significant factor structure after these modifications ($\chi^2 (59) = 76.40, p > 0.05, CFI = 0.96, RMSEA = 0.04$). *Psychological control* construct for 8th graders-fathers was obtained with 14 items (see Figure 10).

4.1.4. Parenting Style Scale

This was a scale developed by Sümer and Güngör (1999). Participants responded to this questionnaire differently for their mothers and fathers. Therefore, four versions of this questionnaire were analysed. The first analysis was for 6th graders-mothers. It was a 5-point Likert scale consisting 12 items ($M = 2.70, SD = 0.68, N = 129$, see Table 4.1). In the current analysis, we tried to obtain one factor called *Behavioural Control*. According to descriptive analysis, skewness seemed good, but some items exceeded the critical kurtosis value (Item 1, 2, 6, 9, 10, 11, and 12). In the first run, model did not fit to data ($\chi^2 (54) = 126.44, p < 0.05, CFI = 0.69, RMSEA = 0.10$). Items numbered 3, 9 and 12 did not significantly load on factor ($r = -0.01, 0.05, 0.003, p > 0.05$), so they were excluded for the second run; however, factor structure was still not significant ($\chi^2 (27) = 67.02, p < 0.05, CFI = 0.80, RMSEA = 0.10$). Among the remaining items, only Item 2 had low factor loading even if it is significant ($r = 0.31, p < 0.05$), therefore, Item 2 was removed for the next step. In this third run, model still did not fit to data ($\chi^2 (20) = 48.93, p < 0.05, CFI = 0.84, RMSEA = 0.10$). Modification indices were checked to see if any of the items had high covariance. Correlation lines added between the errors of Item 4, 5, 7, 8, 10. This last version presented a significant factor structure ($\chi^2 (16) =$

16.62, $p > 0.05$, CFI=0.99, RMSEA=0.01). According to analysis, new *behavioural control* construct consisted of eight items for 6th graders-mothers (see Figure 11).

The second version of the scale was for 6th graders-fathers ($M=2.57$, $SD=0.68$, $N=121$, see Table 4.1). Skewness of items seemed normal but some items exceeded the critical kurtosis value of 3 (Item 1, 2, 4, 10). In the first run, model did not fit to data ($\chi^2 (54) = 119.99$, $p < 0.05$, CFI=0.75, RMSEA=0.09). Items numbered 3, 9 and 12 had non-significant factor loadings also in this version of the scale, so they were excluded in the second run ($r = -0.13, 0.07, 0.04$, $p > 0.05$). Model still did not fit to data ($\chi^2 (27) = 67.24$, $p < 0.05$, CFI=0.83, RMSEA=0.10). For the third run, Item 2 was removed because of its low regression weight ($r=0.28$), and correlation lines were added between items 1, 4, 5 and 7 (see Figure 12). In this third run, factor structure significantly fit to data ($\chi^2 (17) = 17.57$, $p > 0.05$, CFI=0.99, RMSEA=0.01). Finalized version of this scale consisted of eight items.

The third analysis was performed for 8th graders-mothers ($M=2.72$, $SD=.74$, $N=130$, see Table 4.1). Descriptive analysis presented that Item 4, 5 and 6 were skewed and Item 1, 3, 6, 9, 10, 11 and 12 exceeded the kurtosis level. In the first run, model did not fit to data ($\chi^2 (54) = 135.66$, $p < 0.05$, CFI=0.75, RMSEA=0.10). Item 3 and 12 had insignificant factor loadings ($r = -0.00, -0.06$, $p > 0.05$, respectively) and Item 9 had significant but low factor loading ($r=0.23$, $p < 0.05$), therefore we removed these three items in the second run. However, the model still did not fit to data ($\chi^2 (27) = 86.33$, $p < 0.05$, CFI=0.80, RMSEA=0.13). We added correlation lines between errors of the items as suggested by modification indices. In the third run, we obtained a significant factor structure ($\chi^2 (20) = 16.32$, $p > 0.05$, CFI=1.00, RMSEA=0.00). *Behavioural control* for fathers of the 8th graders was obtained with remaining seven items (see Figure 13).

The same model was also tested for 8th graders-fathers ($M=2.41$, $SD=.73$, $N=129$, see Table 4.1). Item 4, 5, 6 and 8 were found to be skewed and all items except Item 5, 7, 8 and 10 exceeded the critical value of kurtosis. In the first run model did not fit to data significantly ($\chi^2(54) = 204.26$, $p<0.05$, $CFI=0.58$, $RMSEA=0.14$). Item 3 and 12 had insignificant factor loadings ($r=0.12$, 0.01 , $p>0.05$, respectively) and Item 9 had significant but low factor loading ($r=0.24$, $p<0.05$), therefore these three items were removed in the second run. All coefficients were significant ($p<0.05$) however the model did not fit to data ($\chi^2(27) = 151.38$, $p<0.05$, $CFI=0.62$, $RMSEA=0.18$). After checking modification indices, some correlation lines were added between errors as suggested and we obtained a significant factor structure ($\chi^2(16) = 15.31$, $p>0.05$, $CFI=1.00$, $RMSEA=0.00$). *Behavioural control* for fathers of 8th graders was obtained with seven items (see Figure 14).

4.1.5. Acceptance of Parental Control

Acceptance of Parental Control scale was developed by Kaya and Kağıtçıbaşı (2012). This scale again was applied separately for mothers and fathers by participants. Therefore, four different versions of this scale were analysed. As a first step, 6th graders mothers version was reported. It was a 5-point Likert scale consisting of five items ($M=3.63$, $SD=1.05$, $N=127$, see Table 4.1). While only Item 5 was skewed, all items exceeded the critical kurtosis value. One factor measurement model of this scale contains five items. Both original version and current scale also had one factor called *Legitimacy Beliefs*. In the first run, model did not fit to data ($\chi^2(5) = 14.48$, $p<0.05$, $CFI=0.93$, $RMSEA=0.12$). Nevertheless, all items loaded on factor significantly ($p<0.05$). Therefore, modification indices were checked to see the high covariance between items. Items 1, 3 and 5 had high covariance so correlation lines were added between the errors of these items for the next run. Factor structure of this model yielded

a significant fit ($\chi^2 (3) = 2.90, p > 0.05, CFI=1.00, RMSEA=0.00$). Finalized version of this scale consisted of five items (see Figure 15).

The second version of this scale was for 6th graders-fathers ($M=3.59, SD=1.05, N=122$, see Table 4.1). This model reached a significant fit in the first run ($\chi^2 (5) = 7.73, p > 0.05, CFI=0.98, RMSEA=0.06$), only RMSEA value could not exceed 0.05. However, no further modification could be applied to this model therefore; this version was accepted as the final model. The last version consisted of five items (see Figure 16).

The third version of the scale was performed for 8th graders-mothers ($M=3.34, SD=1.10, N=128$, see Table 4.1). None of the items were skewed but all items except Item 5 exceeded the kurtosis level. Factor structure yielded a significant fit in the first analysis ($\chi^2 (5) = 4.98, p > 0.05, CFI=1.00, RMSEA=0.00$, see Figure 17).

The last analysis was performed for 8th graders-fathers ($M=3.18, SD=1.12, N=127$, see Table 4.1). Items were not skewed but all except Item 5 exceeded the critical value of kurtosis. We modelled the factor structure as all items were loading on one factor and obtained a significant fit in the first run ($\chi^2 (5) = 5.37, p > 0.05, CFI=0.99, RMSEA=0.02$, see Figure 18).

4.1.6. Related Self-in-Family Scale

It was a 7-point Harter scale consisting of six items (Kağıtçıbaşı, Baydar & Cemacilar, 2006). This scale was analysed for 6th and 8th graders differently, first, results of 6th graders will be reported. All items were reverse coded. Before this coding, low scores represented higher relatedness, however, after reverse code, high scores represent higher relatedness. Descriptive analysis showed that all items were negatively skewed and some of them exceeded the critical value of kurtosis. Therefore, before any further analysis, items were

recoded as a 5-point scale as 1, 2 and 3 as 1; 4 as 2; 5 as 3; 6 as 4 and 7 as 5. With this new version, kurtosis values of all items were dropped but four of six items were still skewed ($M=4.00$, $SD=0.86$, $N=128$, see Table 4.1). All six items were modelled as loading on one factor called *Related self-in-family* (or *Relatedness*). In the first run, model did not fit to data significantly ($\chi^2(9) = 21.54$, $p < 0.05$, $CFI=0.90$, $RMSEA=0.10$). All items significantly loaded on factor ($p < 0.05$), so modification indices were checked. Items 1, 2 and 4 had high covariance. Correlation lines were added between errors of these items. The second run showed that factor structure was significant ($\chi^2(7) = 8.31$, $p > 0.05$, $CFI=0.99$, $RMSEA=0.03$). This scale was remained with six items (see Figure 19).

The second analysis for this scale was analysed for 8th graders ($M=4.06$, $SD=0.78$, $N=130$, see Table 4.1). All items were skewed and exceeded kurtosis level, so the same recoding was performed for this scale too. The model fit to data significantly in the first run ($\chi^2(9) = 11.52$, $p > 0.05$, $CFI=0.98$, $RMSEA=0.04$). We obtained relatedness construct with all six items (see Figure 20).

4.1.6. Autonomous Self-in-Family Scale

This scale was also a 7-point Harter scale consisting of seven items (Kağıtçıbaşı, Baydar & Cemacilar, 2006). Two different versions of this scale were analysed for 6th and 8th graders. Descriptive analysis of 6th graders scale showed that Item 3 and Item 6 were positively skewed and also Item 1 exceeded the kurtosis level. Because of skewness and to keep this scale compatible with Related Self-in-Family scale, this scale was also converted into a 5-point Likert scale. In this new version 1 coded as 1; 2 as 2; 3 as 3; 4 as 4 and 5, 6, 7 as 5. The skewness of all items dropped well below the critical level ($M=2.76$, $SD=0.83$, $N=128$, see Table 4.1). In the first run, the data fit to data well ($\chi^2(14) = 13.47$, $p > 0.05$, $CFI=1.00$,

RMSEA=0.00). However, Item 1 had low factor loading ($r=0.10$, $p>0.05$), so it was excluded from the analysis for the next step. In this run, factor structure yielded a significant fit to data ($\chi^2(9) = 7.64$, $p>0.05$, CFI=1.00, RMSEA=0.00) with significant factor loadings ($p<0.05$, see Figure 21). Therefore, new factor called *Autonomous self-in-family* (or *Autonomy*) in current study and consisted of six items.

Model was analysed for 8th graders too ($M=2.98$, $SD=0.99$, $N=129$, see Table 4.1). None of the items were skewed or exceeded kurtosis level, however, to make this scale compatible with Related Self-in-Family scale, we also converted it into 5-point Likert scale. Model did not fit to data in the first run ($\chi^2(14) = 28.57$, $p<0.05$, CFI=0.93, RMSEA=0.09). Item 1 had low factor loading ($r=0.13$), so it was removed in the second run. Model still did not fit to data ($\chi^2(9) = 22.88$, $p<0.05$, CFI=0.93, RMSEA=0.10). After checking modification indices, correlation lines were added between errors of Item 2, 5 and 6 and factor structure yielded in a significant fit ($\chi^2(7) = 7.17$, $p>0.05$, CFI=0.99, RMSEA=0.01). This scale composed of six items (see Figure 22).

4.1.7. Selection-Optimization-Compensation Scale

This was a 7-point Harter scale consisting of 18 items (Freund & Baltes, 2002). In its original form, this scale consists of three factors; *Selection*, *Optimization* and *Compensation*. In the current research, we hypothesized that intentional self-regulation which is the construct measured with this scale exists both in 6th and 8th graders; however, its structure differs. While 6th graders have an undifferentiated model of intentional self-regulation, 8th graders represent a tripartite model and each selection, optimization and compensation factors can be differentiated. To test this hypothesis, two different models were analysed and compared for both 6th and 8th graders.

The first analysis was run for 6th graders ($M=2.54$, $SD=0.76$, $N=128$, see Table 4.1). Descriptive analysis showed that some items were positively skewed and some exceeded the kurtosis level. We also recoded these items into 5-point Likert scale, and none of the items of 5-point version of this scale were skewed. We expected an undifferentiated model in here meaning, all items will load on one factor only. However as a first step, the model with three factors was measured. Every six items were designed as loading on one factor. In the first run, the model did not fit to data significantly ($\chi^2 (132) = 245.01$, $p<0.05$, $CFI=0.81$, $RMSEA=0.08$). Item 10 and 16 did not significantly load on factors, so they were removed for the next step ($r=0.07$, 0.04 , $p>0.05$, respectively). In the second run, the model still did not fit to data significantly ($\chi^2 (101) = 168.64$, $p<0.05$, $CFI=0.88$, $RMSEA=0.07$) but all coefficients were significant. Modification indices were checked to see if there is any high covariance. For the third step, correlation lines were added between the errors of items (see Figure 23). Model reached a marginal significance with these modifications ($CFI=0.94$, $RMSEA=0.05$). This version of the scale was accepted as the final version of this model. *Selection* consisted of six items with a Cronbach alpha of 0.74, *optimization* consisted of five items with a Cronbach alpha of 0.70 and *compensation* consisted of five items with a Cronbach alpha of 0.65.

For the undifferentiated version of this scale, all items were modelled as loading on one factor called *S-O-C* (abbr. Selection-Optimization-Compensation). In the first run, model did not significantly fit to data ($\chi^2 (135) = 246.51$, $p<0.05$, $CFI=0.81$, $RMSEA=0.08$). Item 10 and 16 had low factor loadings ($r= 0.07$, 0.03 , $p>0.05$, respectively), so they were excluded in the second run. However, model still did not yield a significant factor structure ($\chi^2 (104) = 170.02$, $p<0.05$, $CFI=0.88$, $RMSEA=0.07$) although all coefficients were significant ($p<0.05$). For the third run, some correlation lines were added between the items and model fit to data

(χ^2 (94) = 104.15, $p > 0.05$, CFI=0.98, RMSEA=0.02). As a result, remaining 16 items composed a new factor called *S-O-C* with a Cronbach alpha of 0.87 (see Figure 24).

The second one seemed as a better model because we could get a stronger significance value from the second analysis. Therefore, we obtained evidence for the hypothesis that the intentional self-regulation is an ability that is seen in as young as 6th graders but it is seen as an undifferentiated skill (see Table 4.2).

The same procedure was followed also for 8th graders ($M=2.43$, $SD=0.75$, $N=129$, see Table 4.1). We expect to find the results of the tripartite model more convincing for this age. To measure this, first, the tripartite model and second the undifferentiated model were analysed. Descriptive statistics showed that items were positively skewed and exceeded kurtosis level. However because of the same reason with the other one, we recoded it as a 5-point scale and preferred to use this version because only Item 3, 8 and 12 were skewed.

The first version of 8th graders scale was modelled as each six items loaded on one of these factors, selection, optimization and compensation. In the first run, the model did not fit to data (CFI=0.80, RMSEA=0.09). Item 10 and 16 did not significantly load on their factors ($r=0.17$, 0.17 , $p > 0.05$, respectively), so they were removed for the second step. The model still did not significantly fit to data in the second run (CFI=0.85, RMSEA=0.08) although all coefficients were significant ($p < 0.05$). We checked the modification indices and added correlation lines between the suggested error terms; however, model still did not present a good fit (CFI=0.88, RMSEA=0.08). Because no further modification was suggested and all coefficients were high and significant we decided this version of the scale as finalized version. Although we could not obtain a significant model, we calculated the reliability levels of each factor and found that *selection* was composed of six items with a Cronbach alpha of 0.72, *optimization* was composed of five items with a Cronbach alpha of 0.75 and *compensation*

was composed of five items with a Cronbach alpha of 0.71. In this version, the model did not fit to data. Therefore, we moved on analysing the second version of this scale.

In this version, we analysed the undifferentiated model meaning all items load on one factor called S-O-C. The first analysis did not present a significant model fit ($\chi^2 (135) = 277.04, p < 0.05, CFI = 0.80, RMSEA = 0.09$). Item 10 and 16 did not significantly load on the factor, so were removed for the next step ($r = 0.17, 0.16, p > 0.05$, respectively). In the second run, model still did not fit to data ($\chi^2 (104) = 201.33, p < 0.05, CFI = 0.85, RMSEA = 0.08$) but all coefficients were significant ($p < 0.05$). We added correlation lines between the items that had high covariance for the next step. After these modifications, model reached to a significant fit ($\chi^2 (99) = 121.44, p > 0.05, CFI = 0.96, RMSEA = 0.04$). As a result of these analyses, S-O-C was composed of 16 items with a Cronbach alpha of 0.88 (see Figure 26).

Table 4.2

Goodness-of-Fit Indicators of Models for Selection-Optimization-Compensation (n = 259)

Model	χ^2	df	CFI	RMSEA
<i>6th Graders (N=129)</i>				
Single Factor	104.15	94	0.98	0.02
Three Factor	-	-	0.94	0.05
<i>8th Graders (N=130)</i>				
Single Factor	121.44	99	0.96	0.04
Three Factor	-	-	0.88	0.08

Second part of our hypothesis was not confirmed because we expected that in middle adolescence each step of self-regulation can be observed meaning all selection, optimization and compensation exist. However, instead we found that self-regulation again exists as an undifferentiated structure in this age (see Table 4.2).

4.2. Bivariate Analyses

In this section, correlational analyses are presented. After factor construction was completed, we looked at the relations among our variables in SPSS. Before testing the model, we observed the direction of relationships among the variables and whether they are significant or not.

4.2.1. Bivariate Analyses for 6th Graders

As a first step, the associations among the variables of 6th graders were analysed. Here, we will report these results separately for mothers and fathers.

4.2.1.1. Bivariate Analyses for 6th Graders-Mothers Variables

In this section, the relations between autonomy granting of mothers, difficulties in emotion regulation, psychological control of mothers, behavioural control of mothers, legitimacy beliefs of mothers, autonomous self-in-family, related self-in-family and selection-optimization-compensation variables were analysed (see Table 4.3). Surprisingly, between autonomy granting and other variables, opposite correlations to the expectations were found. While autonomy granting correlated negatively with difficulties in emotion regulation and S-O-C, it was correlated positively with legitimacy beliefs and related self-in-family (relatedness). Some of the associations among S-O-C and some other variables were found as expected. S-O-C was positively correlated autonomous self-in-family and negatively correlated with related self-in-family. However, there was an unexpected positive correlation between S-O-C and psychological control, and S-O-C and difficulties in emotion regulation for this age group. Besides, we could not find a correlation between difficulties in emotion regulation and behavioural control which we expected. All correlations can be seen in Table 4.3.

Table 4.3

Associations among 6th Graders-Mothers Variables (N=129)

	1	2	3	4	5	6	7	8
1-Autonomy Granting-Mothers								
2-Difficulties in Emotion Regulation	-.192*							
3-Psychological Control-Mothers	-.060	.213*						
4-Behavioural Control-Mothers	.036	.154	.619**					
5-Legitimacy Beliefs-Mothers	.324**	-.075	.199*	.166				
6-Autonomous Self-in-Family	-.018	.089	.094	.093	-.242**			
7-Related Self-in-Family	.298**	-.186*	-.224*	-.137	.302**	-.498**		
8-S-O-C	-.358**	.262**	.251**	.113	-.259**	.525**	-.640**	

Note. * $p < 0.05$, ** $p < 0.01$, two-tailed

4.2.1.2. Bivariate Analyses for 6th Graders-Fathers Variables

In this section, the relations between autonomy granting of fathers, difficulties in emotion regulation, psychological control of fathers, behavioural control of fathers, legitimacy beliefs of fathers, autonomous self-in-family, related self-in-family and selection-optimization-compensation variables were analysed (see Table 4.4). There were some unexpected correlations for fathers too. For example autonomy granting negatively correlated with difficulties in emotion regulation and S-O-C while we expected the otherwise and positively correlated with legitimacy beliefs and relatedness. A positive correlation between S-O-C and difficulties in emotion regulation, psychological control, behavioural control and autonomy, and a negative correlation with legitimacy beliefs and relatedness were found. Among these correlations, positive correlation with psychological control was unexpected. A

relation between emotion regulation and behavioural control could not be found again. All other associations can be seen in Table 4.4.

Table 4.4

Associations among 6th Graders-Fathers Variables (N=129)

	1	2	3	4	5	6	7	8
1-Autonomy Granting-Fathers								
2-Difficulties in Emotion Regulation	-.244**							
3-Psychological Control-Fathers	-.006	.123						
4-Behavioural Control-Fathers	-.069	.138	.604**					
5-Legitimacy Beliefs-Fathers	.243**	-.127	.234**	.156				
6-Autonomous Self-in-Family	-.028	.089	.064	.008	-.221*			
7-Related Self-in-Family	.212*	-.186*	-.204*	-.098	.153	-.498**		
8-S-O-C	-.360**	.262**	.298**	.247**	-.210*	.525**	-.640**	

4.2.1.3. Bivariate Analyses for 6th Graders Mother and Fathers Variables

In this section, we checked if participants responded similarly for their parents. In here, autonomy granting, psychological control, behavioural control and legitimacy beliefs were analysed (see Table 4.5). Both forms of all scales were positively and highly correlated as can be seen in the table.

Table 4.5

Associations among 6th Graders Mother and Father Variables (N=129)

	1	2	3	4	5	6	7	8
1-Autonomy Granting-Mothers								
2-Autonomy Granting-Fathers	.784**							
3-Psychological Control-Mothers	-.060	.000						
4-Psychological Control-Fathers	-.065	-.006	.729**					
5-Behavioural Control-Mothers	.036	.035	.619**	.433**				
6-Behavioural Control-Fathers	-.049	-.069	.542**	.604**	.632**			
7-Legitimacy Beliefs-Mothers	.324**	.266**	.199*	.155	.166	.097		
8-Legitimacy Beliefs-Fathers	.202*	.243**	.175*	.234**	.125	.156	.822**	

Note. * $p < 0.05$, ** $p < 0.01$, two-tailed

4.2.2. Bivariate Analyses for 8th Graders

As a second step, the associations among the variables of 8th graders were analysed.

Here, we will report these results separately for mothers and fathers.

4.2.2.1. Bivariate Analyses for 8th Graders-Mothers Variables

In this section, relations between autonomy granting of mothers, difficulties in emotion regulation, psychological control of mothers, behavioural control of mothers, legitimacy beliefs of mothers, autonomous self-in-family, related self-in-family and selection-optimization-compensation variables were analysed (see Table 4.6). For this age group, S-O-C was found to be correlated positively only with autonomy and negatively with relatedness. However, emotion regulation was positively correlated with behavioural control meaning as

behavioural control increases, difficulties in emotion regulation also increase. Other associations can be seen in Table 4.6.

Table 4.6

Associations among 8th Graders-Mothers Variables (N=130)

	1	2	3	4	5	6	7	8
1-Autonomy Granting-Mothers								
2-Difficulties in Emotion Regulation	-.118							
3-Psychological Control-Mothers	.010	.232**						
4-Behavioural Control-Mothers	-.120	.300**	.708**					
5-Legitimacy Beliefs-Mothers	.323**	.056	.380**	.348**				
6-Autonomous Self-in-Family	.078	.042	.013	.031	-.044			
7-Related Self-in-Family	.101	-.115	-.184*	-.182*	.112	-.506**		
8-S-O-C	-.080	.149	.061	.126	-.036	.341**	-.365**	

Note. * $p < 0.05$, ** $p < 0.01$, two-tailed

4.2.2.2. Bivariate Analyses for 8th Graders-Fathers Variables

In this section, relations between autonomy granting of fathers, difficulties in emotion regulation, psychological control of fathers, behavioural control of fathers, legitimacy beliefs of fathers, autonomous self-in-family, related self-in-family and selection-optimization-compensation variables were analysed (see Table 4.7). There was no relationship between autonomy granting and S-O-C. We also could not find an association between behavioural control and difficulties in emotion regulation. Other associations can be seen in the table.

Table 4.7

Associations among 8th Graders-Fathers Variables (N=130)

	1	2	3	4	5	6	7	8
1-Autonomy Granting-Fathers								
2-Emotion Regulation	-.149							
3-Psychological Control-Fathers	-.150	.204*						
4-Behavioural Control-Fathers	-.108	.097	.556**					
5-Legitimacy Beliefs-Fathers	.233**	.066	.127	.157				
6-Autonomous Self-in-Family	.170	.042	.048	.121	-.038			
7-Related Self-in-Family	.038	-.115	-.238**	-.244**	.036	-.506**		
8-S-O-C	-.078	.149	.074	.140	-.138	.341**	-.365**	

Note. * $p < 0.05$, ** $p < 0.01$, two-tailed

4.2.2.3. Bivariate Analyses for 8th Graders Mother and Fathers Variables

In this section, we checked if participants responded similarly for their parents. In here, autonomy granting, psychological control, behavioural control and legitimacy beliefs were analysed (see Table 4.8). Both forms of all scales were positively and highly correlated as can be seen in the table.

Table 4.8

Associations among 8th Graders Mother and Father Variables (N=130)

	1	2	3	4	5	6	7	8
1-Autonomy Granting-Mothers								
2-Autonomy Granting-Fathers	.821**							
3-Psychological Control-Mothers	.010	-.009						
4-Psychological Control-Fathers	-.188*	-.150	.519**					
5-Behavioural Control-Mothers	-.120	-.123	.708**	.765**				
6-Behavioural Control-Fathers	-.102	-.108	.627**	.556**	.565**			
7-Legitimacy Beliefs-Mothers	.323**	.248**	.380**	.137	.348**	.145		
8-Legitimacy Beliefs-Fathers	.168	.233**	.412**	.127	.298**	.157	.803**	

Note. * $p < 0.05$, ** $p < 0.01$, two-tailed

With these analyses, we finished testing the correlational relations among our constructs. In the next section, ANOVA and full model analysis will be reported. Because factors that are extracted from mother and father form scales consisted of approximately the same items, and there are positive high correlations between mother and father forms, these two forms of a scale or factors were merged for the further analyses. We will separate them into little groups if needed.

4.3. Analysis of Variance

To test if there is a difference in the intentional self-regulation levels of participants considering their grade and gender, we performed a univariate analysis of variance test with a

dependent variable of S-O-C and with two independent variables; grade and gender. To do this, we first composed a S-O-C variable that includes the scores of both 6th and 8th graders.

After the composition of the variable, we performed a univariate ANOVA and compared intentional self-regulation level of adolescents including grade and gender. Expected results were a better intentional self-regulation score in males and 8th grade students. Results revealed a marginal difference in S-O-C levels of adolescents considering their grade ($F(1,255) = 3.55, p=0.06$) and a significant difference between genders ($F(1,255) = 9.15, p<0.05$). We can state that 6th graders ($M=1.62, SD=0.04, N=129$) have slightly better intentional self-regulation abilities compared to 8th graders ($M=1.48, SD=0.04, N=130$). In addition, boys ($M=1.65, SD=0.04, N=141$) have better intentional self-regulation skills than girls ($M=1.44, SD=0.05, N=118$). We also checked if the emotion regulation skills of adolescents get better with age, however no significant results were found ($F(1,255) = 0.62, p>0.05$).

4.4. Structural Equation Modelling

As a last step in our analysis, we tested our full model with structural equation modelling in AMOS. Before testing the model, missing values should be handled, the composite scores of parental variables should be found out and SES variable should be created. We already evidenced that the data is missing at random and replaced missing ones with the predicted values.

As a next step, to combine the data, mean of parental variables were calculated. To achieve this, the constructs that were obtained from confirmatory factor analysis were used. We combined maternal autonomy granting and paternal autonomy granting as *parental autonomy granting*, maternal psychological control and paternal psychological control as

parental psychological control, maternal behavioural control and paternal behavioural control as *parental behavioural control*, and maternal legitimacy beliefs and paternal legitimacy beliefs as *parental legitimacy beliefs*. Last, the socio-economic status (SES) of the participants was calculated. Participants were asked to respond education levels of their parents and income. We obtained the z-score of these items and calculated a new variable. As a last step, scores below the mean were recoded as low; scores above the mean were recoded as middle SES. We used these SES variables as a moderator in our models.

In the following model analyses, we will examine (1) the parenting factors (autonomy granting, psychological control and behavioural control) that affect the intentional self-regulation and the emotion regulation (2) how being a self that is autonomous or related affect the adolescents' intentional self- and emotion regulation (3) whether perceived parental legitimate behaviours affect the intentional self- and emotion regulation in adolescents, and (4) the effect of SES, gender of parent and age on these relationships.

The significance of the model will again be tested considering chi-square ($p>0.05$), Root Mean Squared Error of Approximation (RMSEA <0.05) and Comparative Fit Index (CFI >0.95).

We first tested the following model (Figure 4.1) with the data of 6th graders and 8th graders with SEM.

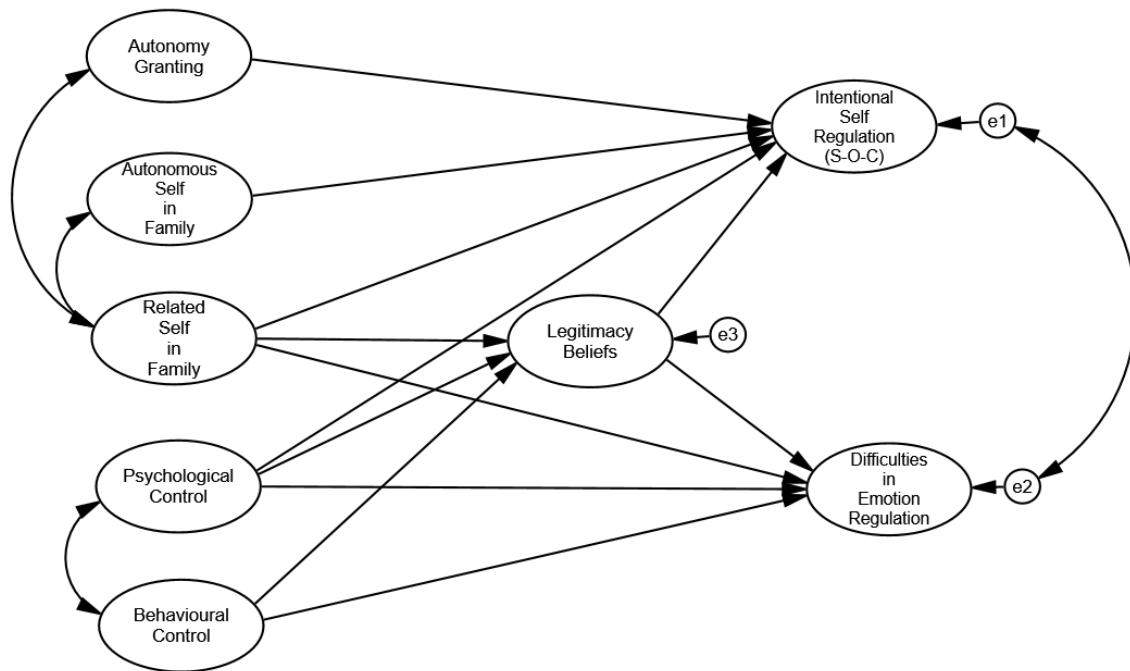


Figure 4.1. Model of the hypothesized relationships between parental factors, self types and self regulation skills of adolescents across SES and age.

4.4.1. Model Analysis for All Data

Initial analysis revealed a non-significant model fit ($\chi^2 (24) = 209.95, p < 0.05$, CFI=0.72, RMSEA=0.17). Not all paths significantly estimated the factors and some of the paths had regression weights in the opposite direction to our expectations. In low SES, the autonomous self-in-family ($r=0.25, p < 0.05$) and the parental legitimacy beliefs ($r=-0.18, p < 0.05$) significantly predicted the S-O-C. While the psychological control ($r=0.31, p=0.06$) marginally predicted the emotion regulation, the behavioural control ($r=-0.002, p > 0.05$) did not have a significant effect on the emotion regulation for low SES. However, we found that the legitimacy beliefs mediated some of the relationships between predictors and the S-O-C and the emotion regulation. For instance, the related self-in-family and the parental

psychological control did not directly affect the S-O-C ($p>0.05$); however these relationships mediated by the parental legitimacy beliefs of adolescents, because the parental psychological control and the related self-in-family significantly predicted the parental legitimacy beliefs ($r=0.28, 0.30, p<0.05$, respectively). Also, the legitimacy beliefs predicted the S-O-C significantly ($r=-0.18, p<0.05$, see Figure 27a). On the other hand, in middle SES, the related self-in-family ($r=-0.40, p<0.05$) and the parental psychological control ($r=0.26, p<0.05$) significantly predicted the S-O-C. However, the autonomous self-in-family and the parental autonomy granting had no significant effect on the S-O-C ($p>0.05$). Besides, none of the variables predicted the emotion regulation ($p>0.05$) and the legitimacy beliefs did not mediate any relationships ($p>0.05$, see Figure 27b). In order to obtain a more parsimonious model, we eliminated some of the paths that are insignificant for both low and middle SES, and some variables (parental autonomy granting and parental behavioural control) that did not predict any variables and performed the model again. In this second analysis, a marginally significant model was obtained ($\chi^2 (12) = 20.72, p>0.05, CFI=0.97, RMSEA=0.05$). We checked the modification indices and added a correlation line between the related self-in-family and the parental psychological control variables as proposed. In bivariate analyses, these two variables were already correlated. This was also theoretically applicable. After this modification, we obtained a significant model fit ($\chi^2 (10) = 7.65, p>0.05, CFI=1.00, RMSEA=0.00$, see Figure 28a, b).

In order to see if model is different across SES levels, we compared two models. First, we constrained our model and then compared it with our unconstrained model. Results showed that two SES levels were different from each other at model level ($\chi^2 (7) = 13.435, p=0.06$). As a second step in path analysis, we decided to analyse each path to see if paths differ across SES. To find out which path differs considering SES level, each path was

constrained by naming the path one by one and checked if the chi –square value exceeds the critical chi-square (11.50) values for 95% of confidence interval for this analysis. The paths between autonomous self-in-family and SOC ($\chi^2 (11) =13.38$) and related self-in-family and S-O-C ($\chi^2 (11) =13.26$) were significant at 95% because it exceeded the chi-square value of 11.50. However, other paths did not differ from each other considering SES level.

For the following analyses, we decided to run this parsimonious model (see Figure 4.2) because this model was supported from the data.

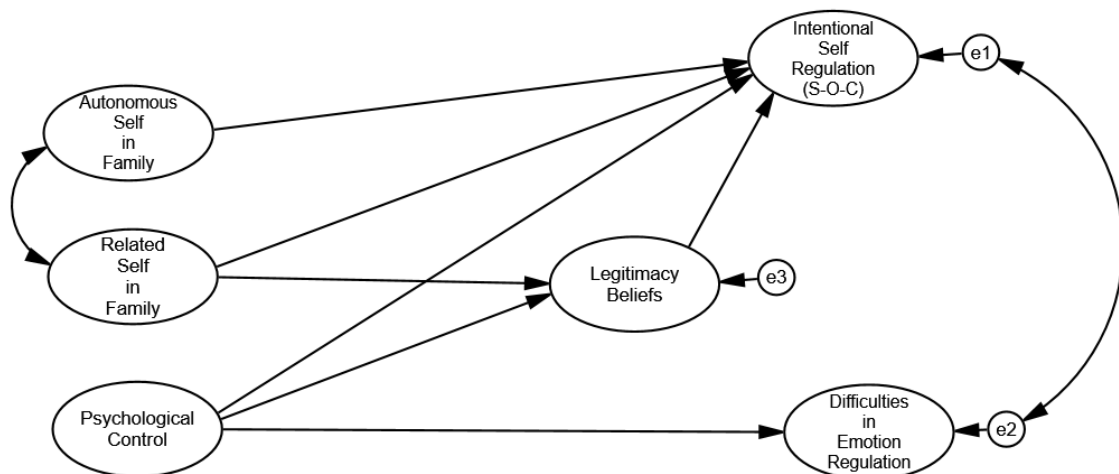


Figure 4.2. Simplified version of the proposed model.

4.4.2. Model Analysis for 6th Graders

The model after created by the first analysis was tested for 6th graders data. The model reached a marginal significance in the first run ($\chi^2 (10) = 14.92$, $p>0.05$, CFI=0.96, RMSEA=0.06). Before reporting the coefficients between variables, we checked the modification indices. We added a path line from related self-in-family to difficulties in

emotion regulation and run the model again. In this second run, we obtained a significant model ($\chi^2 (8) = 9.24, p > 0.05, CFI = 0.99, RMSEA = 0.03$). In low SES, paths between the autonomous self-in-family and the S-O-C ($r = 0.32$), the related self-in-family and the S-O-C ($r = -0.37$), the related self-in-family and the emotion regulation ($r = -0.26$) were significant ($p < 0.05$). However, because the parental legitimacy beliefs did not predict the S-O-C, it did not mediate any of the relationships. In middle SES, the related self-in-family and the parental psychological control significantly predicted the S-O-C ($r = -0.57, 0.21, p < 0.05$, respectively). However, the emotion regulation was not predicted by any of the variables and the parental legitimacy beliefs did not mediate any relationships (see Figure 29a, b). We observed some differences between two SES levels for 6th graders. These differences will be interpreted in following sections.

As a second step, we applied path analysis for 6th graders. However we could not find any effect of SES at model level ($\chi^2 (8) = 6.06, p > 0.05$). Therefore, we decided to not to go further for this model.

4.4.3. Model Analysis for 8th Graders

The same simplified model was tested with 8th graders data set. Initial analysis represented a significant model fit ($\chi^2 (10) = 6.30, p > 0.05, CFI = 1.00, RMSEA = 0.00$). After obtaining a significant model, we checked the regression weights of paths for low and middle SES. In low SES, the paths between the autonomous self-in-family and the S-O-C ($r = 0.37, p < 0.05$), the related self-in-family and the S-O-C ($r = -0.31, p < 0.05$) were significant. However, none of the variables predicted the emotion regulation and the legitimacy beliefs did not mediate any relationship. On the other hand, in middle SES, while none of the

variables predicted the S-O-C, the emotion regulation was predicted significantly by the parental psychological control ($r=0.44$, $p<0.05$, see Figure 30a, b).

We again checked if SES makes any difference between paths and found no difference at model level ($\chi^2 (7) = 11.53$, $p>0.05$).

In the following sections, we will test the models separately for maternal and paternal variables and grades. We will try to find out whether parents affect differently intentional self- and emotion regulation of adolescents.

4.4.4. Model Analysis for 6th Graders-Mothers

Initial analysis revealed an acceptable model fit ($\chi^2 (10) = 15.71$, $p<0.05$, CFI=0.96, RMSEA=0.06). Before going any further, we checked the modification indices and observed that a path can be drawn between the related self-in-family and the emotion regulation. Therefore, we added this path and run the model again. In the second run, we obtained a significant model ($\chi^2 (8) = 9.68$, $p<0.05$, CFI=0.98, RMSEA=0.04). In low SES, the autonomous self-in-family ($r=0.32$, $p<0.05$) and the related self-in-family ($r=-0.38$, $p<0.05$) significantly predicted the S-O-C. While the maternal psychological control ($r=0.28$, $p<0.05$) and the related self-in-family ($r=-0.25$, $p<0.05$) significantly predicted the emotion regulation, the legitimacy beliefs did not mediate any of the relationships between the predictors and the S-O-C ($p>0.05$, see Figure 31a). In middle SES, only the related self-in-family ($r=-0.58$, $p<0.05$) significantly predicted the S-O-C. On the other hand, none of the variables predicted the emotion regulation ($p>0.05$) and the legitimacy beliefs did not mediate any relationships ($p>0.05$, see Figure 31b).

In order to see if model is different across SES levels, we compared two models. Results showed that two SES levels were not different from each other at model level ($\chi^2 (8) = 6.84, p > 0.05$). We next tested the model with paternal variables.

4.4.5. Model Analysis for 6th Graders-Fathers

The same model was also tested with paternal variables. Initial analysis revealed a significant model fit ($\chi^2 (10) = 13.88, p > 0.05, CFI=0.97, RMSEA=0.05$). We again added a path between the related self-in-family and the emotion regulation as suggested by modification indices. In this second run, model reached a significant fit ($\chi^2 (8) = 7.88, p > 0.05, CFI=1.00, RMSEA=0.00$). In low SES, the autonomous self-in-family ($r=0.31, p < 0.05$), the related self-in-family ($r=-0.38, p < 0.05$) significantly and the paternal psychological control ($r=0.15, p=0.06$) marginally predicted the S-O-C. However, only the related self-in-family significantly predicted the emotion regulation ($r=-0.27, p < 0.05$). Besides, the legitimacy beliefs mediated the relationships between the paternal psychological control and the S-O-C ($r=-0.18, p < 0.05$, see Figure 32a). In middle SES, the S-O-C was significantly predicted by the psychological control ($r=0.25, p < 0.05$) and the related self-in-family ($r=-0.57, p < 0.05$). None of the variables significantly predicted the emotion regulation ($p > 0.05$) and the legitimacy beliefs did not mediate any of the relationships proposed (see Figure 32b).

We again compared the two models across SES levels to see if they are different. Results revealed no difference between SES levels with respect to model ($\chi^2 (8) = 6.44, p > 0.05$). Therefore, we did not run any further analysis for 6th graders. In the following section we analysed the maternal and paternal variables for 8th graders.

4.4.6. Model Analysis for 8th Graders-Mothers

In this section the model was performed for 8th graders. First, maternal variables were included into the analysis. Initial analysis yielded a significant model fit ($\chi^2 (10) = 5.76$, $p > 0.05$, CFI=1.00, RMSEA=0.00). In low SES, the autonomous self-in-family ($r = 0.38$, $p < 0.05$) and the related self-in-family ($r = -0.31$, $p < 0.05$) significantly predicted the S-O-C (see Figure 33a). In middle SES, the emotion regulation was predicted significantly by the maternal psychological control ($r = 0.41$, $p < 0.05$, see Figure 33b).

Unconstrained and fully constrained models were compared at SES level to see if there is a difference between them. However, groups were not different at model level ($\chi^2 (7) = 10.46$, $p > 0.05$). Therefore, we moved on to paternal variables.

4.4.7. Model Analysis for 8th Graders-Fathers

The same model was tested with paternal variables. The first analysis revealed a significant model fit ($\chi^2 (10) = 8.70$, $p > 0.05$, CFI=1.00, RMSEA=0.00). In low SES the autonomous self-in-family ($r = 0.36$, $p < 0.05$) and the related self-in-family ($r = -0.31$, $p < 0.05$) significantly predicted the S-O-C (see Figure 34a). In middle SES only the paternal psychological control ($r = 0.31$, $p < 0.05$) predicted the emotion regulation (see Figure 34b).

We compared two models considering low and middle SES. Analysis showed that two groups were not different from each other at model level ($\chi^2 (7) = 8.79$, $p > 0.05$), therefore we decided to not to perform any more analyses. With these path analyses, we finished analysing the models. In the next section we will interpret the findings.

Chapter 5

DISCUSSION

The main purposes of this study were (1) to demonstrate the existence and development of intentional self-regulation and emotion regulation in adolescence, (2) to determine the impact of parental control, autonomy granting behaviours and acceptance of parenting practices on the regulatory skills of adolescents, (3) to explore the effect of type of self on adolescents' regulatory abilities and (4) to observe how these relations change through age and SES. Different analysis techniques and programs were utilized to test these aims.

5.1. Summary of Findings

Diverse findings were obtained. Some of them aligned with our expectations, but others did not. We, therefore, provide a summary of the findings first and then proceed with the discussion.

5.1.1. Structure and Level of Intentional Self-Regulation in Different Groups

We performed a confirmatory factor analysis to see if we could obtain a reliable S-O-C score from the data of 6th and 8th graders. For both grades, we achieved reliable scores after excluding just a few items from the scale. Therefore, we conclude that intentional self-regulation exists in early and middle adolescence.

We utilized the selection-optimization-compensation model (Freund & Baltes, 1998) to measure intentional self-regulation in adolescence. In this model, every construct reflects a different step of the intentional self-regulation process. Freund and Baltes (2002) also developed a scale to measure this tripartite model and its steps. We proposed that these steps can only be separated from each other in middle adolescence. In early adolescence, intentional

self-regulation ability does exist; however, it cannot be separated into different steps; it is found as an undifferentiated skill. We performed a confirmatory factor analysis to test this hypothesis. As expected, in early adolescence, the structure of self-regulation ability is undifferentiated. The model for undifferentiated structure presented more reliable outcomes than the model for the tripartite structure. However, we could not obtain the proposed tripartite structure for middle adolescence either. For this age group, we again obtained an undifferentiated structure instead of the tripartite model. Therefore, in both early and middle adolescence, selection, optimization and compensation steps of intentional self-regulation ability cannot be dissociated from each other.

We proposed that self-regulation skills of adolescents would improve with age and also some variance would occur between genders. As expected, boys have better intentional self-regulation skills. In addition, a marginal difference was found between two age groups. In the current study, early adolescents represented a better intentional self-regulation. However, no difference was observed considering emotion regulation skills of these age groups.

5.1.2. Parental Predictors of Intentional Self-Regulation and Variances considering SES, Age and Gender of Parent

We measured the perceptions of adolescents regarding parental psychological control, parental promotion of autonomous thought, and legitimacy beliefs of adolescents about these parental behaviours. The SEM analysis was performed to see the effect of these perceptions on intentional self-regulation. Various results were obtained for different grades, SES levels, and parental gender.

We proposed that promotion of autonomy would positively affect the process of intentional self-regulation of adolescents. In bivariate analysis, we found that in the 6th grade,

parental promotion of autonomy and intentional self-regulation of adolescents were negatively correlated. However, in 8th grade, this relation was not significant. We also found that having parents who promote autonomy in their children did not have any positive impact on self-regulation of adolescents in our model analysis. Overall, because in the model analysis that was performed using the entire data, adolescents did not benefit from parental autonomy granting, this variable was excluded from the analyses.

Second, we proposed that parental psychological control would negatively affect the level of intentional self-regulation. We observed that overall, parental psychological control has an effect on intentional self-regulation either directly or indirectly. In low SES, psychological control did not directly predict intentional self-regulation; however its effect was mediated by acceptance of parental control. Adolescents who were exposed to more parental control accepted their parents' control more; however this acceptance decreased the level of intentional self-regulation. On the other hand, in middle SES, psychological control contributed to S-O-C positively. We expected an opposite relation between parental psychological control and S-O-C however; we could not find evidence for our prediction in middle SES. When the effect of parental psychological control on intentional self-regulation was not mediated by legitimacy beliefs, increases in psychological control led to increases in intentional self-regulation skills. However, when adolescents perceived the controlling behaviours of their parents as legitimate, these beliefs decreased the contribution of parental psychological control on intentional self-regulation.

We anticipated that some of the relationships between parental variables and regulatory skills of adolescents would change in different SES groups, grades and with the gender of the parent. To see this, we first modelled differently for different groups and

determined the significant relationships among variables. Then we applied a path analysis to see if these significant paths vary across different SES levels.

The expected that a negative effect of psychological control on self-regulation would not be observed at different SES levels, parental gender or ages. If there was an association between psychological control and intentional self-regulation, contrary to expectations, this association was positive. We found that intentional self-regulation skills of 8th graders, regardless of parental gender and their SES levels were not affected by parental psychological control. However, the link between psychological control and intentional self-regulation was positive for paternal psychological control in 6th graders from low SES and middle SES. Unlike any other groups, intentional self-regulation skills of early adolescents increased as their fathers psychologically controlled them.

Last, we proposed that acceptance of parental control would mediate the relationship between parental control variables, related self-in-family, and self-regulatory skills. We found evidence for the mediating effect of acceptance of parental control however; outcomes did not align with our predictions. In low SES, acceptance of parental control mediated the relationship between psychological control and S-O-C, and between related self-in-family and S-O-C. Adolescents' legitimacy beliefs increased with the level of relatedness and parental psychological control, and it reduced their intentional self-regulation skills. However, the same effect was not observed in middle SES. This negative relationship was observed especially for paternal variables in 6th and 8th grades' with low SES. Paternal psychological control increased the level of intentional self-regulation in early adolescents; however, when legitimacy beliefs were included, the strength of this relation changed. As paternal psychological control increased, the legitimacy beliefs of early adolescents' increased too. However, this belief decreased the level of intentional self-regulation for this group. The same

mediating effect was also valid for the link between paternal psychological control and intentional self-regulation skills of 8th graders in low SES. While paternal psychological control did not have a direct effect, it decreased the adolescents' level of intentional self-regulation through legitimacy beliefs.

5.1.3. Effects of Self-Types on Intentional Self-Regulation and Variances considering SES and Age

We proposed a positive contribution of autonomous self-in-family to intentional self-regulation and a negative association between related self-in-family and intentional self-regulation. Although autonomy granting behaviours of parents did not create the expected effect on self-regulation, autonomous self-in-family mostly aligned with our predictions. As expected, autonomous self-in-family contributed positively to intentional self-regulation of adolescents in low SES for both age groups; however it did not have any effect on intentional self-regulation in middle SES. Additionally, related self-in-family had a negative association with self-regulation in both SES levels and both grades. In early adolescence, regardless of SES levels, adolescents' intentional self-regulation levels drop as their level of related self-in-family increases. However, in middle adolescence, related self-in-family had an adverse effect on intentional self-regulation only for the low SES group; in the middle SES, intentional self-regulation was not affected by the level of relatedness. Overall, two different types of selves affected intentional self-regulation in opposite ways.

5.1.4. Parental Predictors of Emotion Regulation and Variances considering SES, Age and Gender of Parent

We proposed different parental and individual variables affecting the emotion regulation skills of adolescents. Our prediction was that high levels of parental behavioural control would lead to better emotion regulation ability. In our sample, behavioural control by

parents did not have any effect on emotion regulation for both SES levels so this variable is excluded.

We also observed the effect of parental psychological control on emotion regulation. We predicted that psychological control would increase emotion regulation problems in adolescence. In line with our expectations, parental psychological control negatively predicted the emotion regulation skills of adolescents in low and middle SES. When paternal and maternal variables are considered with SES levels and grades, psychological control by both parents in middle adolescence and in middle SES, and psychological control by mothers in early adolescence in low SES increased the emotion regulation problems. As a result, in middle SES and middle adolescence, psychological control has a robust negative effect on emotion regulation.

The last parenting variable was legitimacy beliefs of adolescents. However, it did not mediate any of the relationships between behavioural control and emotion regulation in any groups, so after some point, we removed the paths between these variables.

5.1.5. Effects of Self-Types on Emotion Regulation and Variances considering SES and Age

The first component of self-construal which is related self-in-family was not associated with emotion regulation when we analysed the entire data; however, after including the grade, we observed some significant paths between these two variables. Only in low SES level of 6th graders, related self-in-family associated with emotion regulation ability positively, as we expected. We conclude that feeling related to family increases early adolescents' control on their emotions in low SES.

After summarizing the outcomes, in the following section, we will provide some theoretical information as explanations for current findings.

5.2 Interpretation of Results

Overall, we obtained an integrative S-O-C score from both early and middle adolescents reflecting the existence of intentional self-regulation. We identified differences in intentional self-regulation levels of the two age groups and gender. Among parental variables, while autonomy granting has no effect, psychological control is positively linked to intentional self-regulation in middle SES, and an indirect negative link is found in low SES. In addition, legitimacy belief mediated the relationship between psychological control and intentional self-regulation and between related self-in-family and intentional self-regulation by reducing the positive effect of psychological control and the negative effect of related self-in-family on intentional self-regulation. Regarding self-types; while related self-in-family has a negative effect on the intentional self-regulation, autonomous self-in-family positively contributed to this skill. For associations between emotion regulation and parental variables, while behavioural control has no effect, psychological control decreased the emotion regulation abilities of adolescents. Adolescents who are controlled emotionally by parents are worse at controlling their emotions. However, related self-in-family is linked positively with emotion regulation meaning feeling related to family decreased the emotion regulation problems adolescents may experience.

We used a model proposed by Freund and Baltes (2002) to measure intentional self-regulation skills of adolescents. This tripartite model was utilized in a Turkish sample for the first time, and there are only a few studies that used it at such an early age in other cultures (Zimmerman et al., 2007). It was originally designed to evaluate the life management

strategies of adults (Freund & Baltes, 1998), and has recently been adapted for younger ages (Lerner et al., 2001). In a successfully-aged adult population, each step of this model (selection-optimization-compensation) is clearly differentiated from each other. This is because adults can produce different strategies to demonstrate their goal maximization abilities in every step. In our study, the analyses revealed an integrative model of S-O-C for both age groups. Adolescents did not display a differentiated self-regulatory process. It is not an unexpected result because researchers point to the possibility of structural differences in S-O-C model throughout the life span (Freund & Baltes, 2002; Gestsdottir & Lerner, 2008) and emphasize the importance of individual (e.g. brain development) and contextual (peer related) changes in the development of intentional self-regulation (Gestsdottir & Lerner, 2008). The reason why an undifferentiated S-O-C is obtained might be related to limited changes in these individual and contextual factors. Adolescents might not have all the means to make these three processes identifiable. Therefore, they may not be at a stage yet that a differentiated model of S-O-C is represented although they have the ability to set long term future plans (Moilanen, 2005). Similar outcomes were acquired in previous research with samples of early adolescents (Gestsdottir & Lerner, 2007; Raffaelli et al., 2005). In a previous study Raffaelli et al. (2005) measured the self-regulation ability of children in a longitudinal study from the ages of 5 to 12. Although a different conceptualization of self-regulation (a tripartite model with affect, behaviour and attention) was analysed in that study, a unidimensional model was found more reliable and robust across ages. Similarly, Gestsdottir and Lerner (2007) found that one factor solution for S-O-C is better than the tripartite model for this age group. Therefore, intentional self-regulation skills appear to exist in adolescence but not as fully differentiated as in adulthood.

As expected, boys have better regulation skills than girls. However, previous studies generally found that girls have better self-regulation skills (Morris et al., 2007; Raffaelli et al.,

2005; Zimmerman et al., 2007). This result might be explained with the cultural variations in parenting behaviours. Unlike in Western cultures, in Turkish culture boys have more freedom to actualize their decisions. Sayıl et al. (2012) also found that girls perceive their parents controlling more than boys. This perception might prevent girls to make autonomous decisions. On the other hand, boys are expected to have more autonomous actions and this might trigger their better intentional self-regulation skills. However, results for age groups considering adolescents' self-regulation skills did not align with our expectations. Early adolescents represented a slightly better intentional self-regulation skill compared to middle adolescents while no difference was observed for emotion regulation. The age difference between the two groups was probably not wide enough to detect any variation and to eliminate the effects of fluctuations. Therefore, participants might not have a substantial difference in their regulatory skills.

The autonomy concept was assessed with two different scales in the current study. The first one is the Parental Promotion of Autonomy Scale, in which children rated their parents' behaviours. The second one is the Autonomous Self-in-Family Scale in which a self-type is identified. Although these two scales are similar to each other in the concepts they measure, a negative correlation was found. There may be two explanations for the negative correlation. First, our newly adapted Parental Promotion of Autonomy Scale may not be culturally sensitive. Parenting styles depend heavily on cultures, and universal contribution of specific parental behaviours is still a controversial issue. Thus we might have failed to tap the parental autonomy support that we sought to measure.

Second, recent research posits two types of parental autonomy support; these are promotion of independence and promotion of volitional functioning (Marbell & Grolnick, 2012; Soenens et al., 2007). We composed the Parental Promotion of Autonomy Scale by

combining the items in these two different parental autonomy support scales. Our analysis revealed that these two different constructs could load on one factor after excluding some of the items. Therefore, in the Parental Promotion of Autonomy Scale, items like “*My parents push me to think independently*” and “*My parents admit that I know more about some things than adults do*” seem to stress independence. Even the items of promotion of volitional functioning might be perceived as promotion of independence because of cultural differences between the samples where these scales were applied. On the other hand, the Autonomous Self-in-Family scale might reflect promotion of volitional functioning with the items like “*Some children do not become friends with the people whom their families do not approve vs. Some children become friends with anyone even if their families do not approve*”. Therefore, these two autonomy scales might reflect different components of a construct. Considering the cultural sensitivity of the parenting behaviours, more reliable outcomes might be acquired by the Autonomous Self-in-Family Scale in the Turkish culture, because volitional functioning is favoured more than the separateness that independence connotes.

In one of her recent articles, Kağıtçıbaşı (2013) also argues the concept and meaning of autonomy that combines different components in just one definition. The first component of autonomy is separation from parents. As also discussed in Beyers, Goossens, Vansant and Moors (2003), from the psychoanalytic perspective, autonomy is achieved when adolescents put some interpersonal distance with close others. However, Kağıtçıbaşı states that this separateness or individuation is associated with the distance from parents rather than feeling autonomous. Therefore, it should be evaluated under the concept of relatedness. The second component of autonomy is composed of self-motivated and self-governing actions. It is in a way equated with agency. According to Kağıtçıbaşı (2013), this is a more reliable definition for autonomy, because it is the one that reflects the volitional functioning components of

autonomy. Separateness and agency are two different constructs that have been measured and operationalized in one term called autonomy, however there should be different conceptualizations for each. The results of the current study also support this argument. The Autonomous Self-in-Family Scale, the one that is culturally sensitive, taps the concept of volitional functioning and thus positively contributed to intentional self-regulation skills of adolescents.

In our tested model, parental autonomy granting behaviours also did not have any contribution to intentional self-regulation. Furthermore, we found a negative correlation between parental autonomy granting and intentional self-regulation in the bivariate analyses. As Feldman and Rosenthal (1991) stated, a fully-developed autonomy might be a phenomenon that is expected later in life. However, the distinction between the types of autonomy should also be taken into consideration. Intentional self-regulation skills might be related to volitional functioning instead of promotion of independence. Especially in collectivistic cultures, parental practices that control adolescents and provide structure might be more helpful than promoting independence. Adolescents at this age might still need their parents' partial participation in their decisions. Because of this dependence on their parents, adolescents might not feel adequate at deciding by themselves. This dependence on parents or authority is rooted in being a relational culture. Similarly, Soenens et al., (2007) found a relation between promotion of volitional functioning and autonomous self-regulation; however, a relation could not be identified between promotion of independence (or separateness) and autonomous self-regulation. In this study, there were samples that might perceive the parental promotion of autonomy as independence, and thus a negative relationship with intentional self-regulation might take place.

However, as Kağıtçıbaşı (2005) pointed out promotion of autonomy does not just occur in an individualistic society. Every culture has its own way of instilling autonomy in their children. Even in cultures in which interdependence is high, autonomy might be provided with relatedness. Autonomy and relatedness might be two constructs that are intertwined, and children might satisfy their need for autonomous self through conforming to others' interests and requests (Bao & Lam, 2008). It does not harm their volitional functioning because, they have already internalized others' interests, and in contrast, fulfilling others' requests supports their sense of autonomy. This is the reason why we obtained a positive relation between autonomous self-in-family and intentional self-regulation. Results revealed that an autonomous type of self contributes to intentional self-regulation of adolescents especially in low SES. As Soenens et al. (2007) posit in their study, children who are promoted with volitional functioning may not be forced to make decisions independently; however, parents provide the guidance and opinions in this process. In other words, adolescents internalize the rules and norms that are introduced by their parents. This internalization constitutes their volitional self which, in turn, helps them evaluate their options and select among them in responding to others' opinions.

Although we assume that autonomy is served with relatedness in collectivistic cultures (Bao & Lam, 2008), relatedness, by itself, does not promote intentional self-regulation. A negative link was found between related self-in-family and intentional self-regulation abilities of adolescents in all groups except from 8th graders from middle SES. A related self seeks assistance and advice from close others instead of initiating his own actions. Baltes and Cartensen (1999) refer to two kinds of S-O-C. The first, also measured in the current study, is personal S-O-C that individuals achieve by themselves. The second is collective S-O-C which is an interactive process and facilitated with the assistance of close others. In the latter, people

such as couples, families or friends experience the same process altogether. They select a goal among numerous options, dedicate themselves to create the means to achieve that goal, and seek other ways to achieve it in the face of a loss (Lerner et al., 2001). In such a collective S-O-C process, adolescents who have a related type of self will be much more successful. However, in the current study, we measured intentional self-regulation through a personal S-O-C which requires self-initiating, monitoring, modification/correction abilities (Demetriou, 2000). Because related self-in-family depicts closeness to loved ones, it might positively contribute to collective S-O-C rather than personal S-O-C.

Psychological control is attributed as causing low self-esteem (Güngör, 2008), inhibiting self-expression and autonomous action and leading to vulnerable self-efficacy (Barber et al., 2005) among adolescents. However, we could not identify such adverse effects of parental psychological control in our sample. In contrast, psychological control positively contributed to adolescents' intentional self-regulation skills. This might be due to cultural variations in perceptions of parental behaviours. In non-Western societies, psychological control is not perceived as a deviant parenting behaviour; in contrast, it is perceived as a reflection of parental warmth (Güngör, 2008; Kim, 2005). Controlling behaviours are viewed negatively in cultures where self-reliance and independence are highly valued. In collectivistic cultures, parents instil interdependence and obedience as a cultural value in their children (Kağıtçıbaşı, 2007). Because parents put more emphasis on interdependence than dependence in collectivistic cultures like Turkish, Chinese or Japanese, adolescents are not disturbed by the strict control of their parents. Children may even perceive the lack of control as lack of love and care (Güngör, 2008).

Marbell and Grolnick (2012) examines the relationship between two types of parental control and autonomy support with child outcomes such as autonomous self-regulation,

depression, school and academic engagement in an early adolescent population from Ghana where collectivistic culture is dominant. Researchers defines parental psychological control as a behaviour that intrusively limits children's behaviours, and parental provision of structure as clearly defined rules at home. When parental behaviours are operationalized in this way, researchers found that parental control is negatively related to autonomous self-regulation, and academic engagement. However, parental provision of structure is related to depression, perceived competence and engagement but not with autonomous self-regulation. It seems that children internalize the provision of structure but the same thing is invalid for control. Clear rules set at home for children do not harm their autonomous self-regulation. A comparable incident might occur in our sample. Adolescents might internalize their parents' control and this might reverse its effects. Considering all cultural values such as promotion of interdependence and obedience, emotional closeness between the parent-child dyad, and conformity to parents are the underlying justifications for the positive effect of psychological control over intentional self-regulation.

An analysis of these relations separating SES, grade and gender of parents, shows that only paternal psychological control increases the level of intentional self-regulation in the 6th grade for both SES levels if not mediated by legitimacy beliefs. Early adolescents internalize the controlling behaviours of their fathers as assisting them to activate their goal achievement skills. Research has generally focused on maternal psychological control and its adverse effects. It is a novel finding that paternal psychological control can be useful at promoting intentional self-regulation. However, in low SES, when adolescents accept their paternal psychological control, this positive contribution turns into a negative one.

Adolescents' emotion regulation problems increased with the interference of parental behaviours. Adolescents exposed to higher levels of parental psychological control are worse

at controlling their emotions. However, these regulatory skills of adolescents are not affected by parental behavioural control. We expected that parental behavioural control would lessen the emotion regulation difficulties that adolescents go through; however, the literature fails to provide a robust link between these two constructs (Morris et al., 2007). As Neumann (2010) points out, behavioural control might contribute to emotion regulation; however, these controlling behaviours of parents are more effective in childhood. Overt behavioural strategies used by parents are transmitted to children. However, this process may vary across several developmental periods. Especially in adolescence because children want to gain autonomy, they spend more time with their peers and these extra-familial resources may be more influential on their strategies (Bariola et al., 2012).

On the other hand, as parental psychological control increases, adolescents' problems in emotion regulation increase too. The way parents socialize their children is substantially important while children display their emotions. Parents' reactions to child behaviour, their instructions and modelling behaviours are some of the paths that children learn to regulate their emotions (Morris et al., 2007; Neumann, 2010). However, parental psychological control interferes with this learning process. When adolescents perceive their parents' control as an emotional interruption, they fail at regulating their emotions. We found this path significant especially in middle adolescents in middle SES. Although this interruption does not harm the process of intentional self-regulation, it worsens emotion regulation. The items in the psychological control scale mostly reflect emotionally intrusive behaviours by parents (e.g. *When you see that your mother/father is upset, do you think is it your fault?*). Therefore, psychological control may emotionally harm the well-being of adolescents. They may assume that they are not good enough to satisfy the wishes of their parents. This pattern between psychological control and perceptions of adolescents might cause emotional difficulties and a

negative relation, in turn. However, this feeling of disappointment might trigger adolescents to lock on their future plans and pursue the set goals to please their parents. These two regulatory skills might support the positive development of adolescents through different ways. Besides, the age groups that have significant relations with self- and emotion regulations are different. While paternal psychological control in the 6th grade was linked to intentional self-regulation positively; paternal and maternal psychological control were negatively linked to emotion regulation in the 8th grade.

When we detailed our analysis for the effect of SES, grade and gender of the parent, we noticed that the link between parental psychological control and emotion regulation is stronger in middle adolescence in both SES levels and the gender of the parents do not vary this relation. Early adolescents are more likely to internalize the controlling behaviours of parents compared to middle adolescents. Therefore, the adverse effect of parental psychological control at middle adolescence is more understandable.

As opposed to psychological control, related self-in-family increases the level of emotion regulation abilities especially in low SES 6th graders. Being a related self-in-family provides emotional closeness. Therefore, an expected result is that if adolescents, in an early transition from childhood, have a secure relation with their parents and if they are aware that they will not be rejected by their parents, this feeling of security improves their emotion regulation skills.

Overall, we found that the same predictors might be related to outcome variables in various ways. However, further analyses of these relationships suggest that SES, grade and gender of parent shape the relationships lead to a variety of associations. Therefore, researchers should not ignore the contextual factors in their analysis procedures, because these contextual factors can change the strength and direction of the relationships.

5.3. Summary of Important Findings

We discovered several important points that can be investigated further.

- (1) Early adolescents are able to build intentional self-regulation. They can choose goal for themselves, develop ways to achieve these goals and produce extra-solutions in the face of a failure.
- (2) The structure of S-O-C is undifferentiated for both early and middle adolescents.
- (3) Two different self types affect intentional self-regulation differently. We observed that for low SES, adolescents who have an autonomous self-in-family are better at intentional self-regulation abilities. However, in middle SES, having a related self-in-family affects intentional self-regulation skills adversely.
- (4) Parental psychological control builds opposite relations with two regulation skills. A positive relationship with intentional self-regulation emerges in middle SES; however, a negative relationship with emotion regulation develops in low SES.
- (5) As an outcome, intentional self- and emotion regulation are different skills that are composed of different processes. In the current study, no relation was observed between these two skills and parental and self-related variables affected these two regulation skills in opposite ways.

5.4 Limitations

We identified the following limitations of this study.

First, although we discussed important parental variables we did not include any of the peer variables. Adolescence is a time in which children separated from their parents and feel closely attached to their friends. Therefore, peers have a considerable effect in the decision-

making process of adolescents. We would have to improve our model and explain more variance by including peer variables.

Second, we only measured the perceptions of adolescents about parental behaviours with self-reports. Although the importance of these perceptions cannot be denied in self-development, correlating the data collected from parents and adolescents would be a better procedure.

Third, we observed small or no improvement in the regulatory skills of adolescents. A longitudinal design would address this issue. We are not in a position to infer causal relations with a cross-sectional design.

Last, we selected our sample from different locations to represent the adolescent population and to obtain a cultural variation. However, we might have failed to tap the discrepancy between age groups. Late adolescence should be involved into the study aside from early and middle adolescence.

5.5 Contribution

Despite these caveats, the present study adds to the literature in developmental psychology by analysing the role of certain parenting behaviours over self-regulatory skills of adolescents including self-types.

The first contribution of the study is the adaptation of new scales into Turkish. The Selection-Optimization-Compensation Scale and the Parental Promotion of Autonomy Scale were translated into Turkish from English. Their factor analyses and reliability scores were performed in both the pilot and the main studies. Further studies can benefit from these newly adapted scales.

Second, we provide further information about the changing structure of this construct by examining the structure of intentional self-regulation with a tripartite model. Youngsters and older adolescents display different S-O-C structures and we defined the form of this structure from early to middle adolescence.

Third, we explained the variance in intentional self- and emotion regulation with several parental variables. We observed the effects of these parenting behaviours on adolescence. In this period, adolescents are exposed to extra-familial factors more than earlier ages. For example, peers become important agents in adolescents' decision making process. We sought to explain the effect of parents on adolescence in such a transition period.

Last, we included different components of a self-construal and investigated how different self-types are related to intentional self- and emotion regulation. We found the important contributions of autonomous self-in-family which is an underestimated construct in collectivistic cultures. Related self-in-family also results in expected associations.

Using the SES, age and gender of parents as moderator in the model revealed diverse findings. We emphasized the significance of contextual factors in such social interactive processes.

5.6 Future Directions

This study examines parental and self-related variables that are possibly affecting the self-regulation skills of adolescents. However, we did not measure the possible outcomes of these self-regulation skills. Previous research found that intentional self-regulation is positively associated with some adaptive developmental features such as entrepreneurship (Geldhof et al., 2014) and hopeful future expectations (Schimid et al., 2011). Future research

can examine whether intentional self-regulation leads any other positive functions through cross-sectional and longitudinal designs.

We focused on the parental and self-related variables only. However, there might be other potential variables that can predict the intentional self-regulation and emotion regulation of adolescents. For example, self-monitoring, self-modification abilities, and some cognitive skills like attention and inhibition might promote the development of regulatory skills. Therefore, future studies can include these variables in their analyses. As well, effects of peers might be included in further research. Adolescents modify their behaviours to adapt into a peer context. Therefore, peer variables might be a contextual factor that explains adolescents' self-regulation skills. As far as is known, the current study is the first intentional self-regulation research carried out with a Turkish sample. Therefore, we could not compare Selection-Optimization-Compensation model from discrete samples. Since this model was originally developed for older ages, we did not have a chance to observe how this model functions in Turkish elders. As a following study, this model can be applied to different age groups and comparable results can be obtained.

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Appendix A

Pilot Study

We collected data from 107 6th grade students. There were 67 female, 40 male students. Data was obtained through self-reports in one class hour. Participants were presented with 10 scales in total. Here we presented the descriptive and factor analysis and Cronbach alphas of six scales*. Data was analysed with IBM SPSS 21.

Parental Promotion of Autonomy Scale

The first scale to be analysed is the Parental Promotion of Autonomy Scale. This scale was applied in a Turkish sample for the first time. It is a 5-point Likert scale that consists of two rating forms for each parent, so data was analysed separately for parents. In mother form, two out of 10 items were skewed and none exceeded kurtosis level. Without extracting any items, we obtained two factors from this scale with a Cronbach alpha of 0.76. If items were forced into one factor, the first three items were excluded and remaining seven items composed new factor with a Cronbach alpha of 0.78. This analysis presented a good reliability for mother form.

In father form, only one item out of 10 was skewed and none exceeded kurtosis level. The first analysis resulted in two factors out of 10 items. With this version, the reliability of scale was 0.76. These ten items were also forced into one factor. After excluding four items due to low communality, remaining six items composed a new factor with a Cronbach alpha of 0.76.

In the light of these analyses, we concluded that this scale has a good reliability to apply in a Turkish sample. In the main study, the same scale applied without any modification.

Parenting Style Scale

It was a 5-point Likert scale. This scale also consisted of two different rating forms for each parent. In mother form, only one item was skewed and no kurtosis problem was detected. Two factors extracted out of 11 items while three items were excluded from the analysis due to low communality. This version of the scale has 0.74 reliability. In father form, again, only one item was skewed and there was no kurtosis problem. Two factors were extracted after removal of three items. New scale composed of nine items with a Cronbach alpha of 0.81.

One item that seems not suitable for Turkish culture was removed for the main study (*Arkadaşlarımla geç saate kadar dışarıda kalmama izin vermez*). Wording and structure of the sentences were also revised. Besides, new items that are suitable with behavioural control construct were selected from another parenting scale from the same researcher and included into the scale for the main study.

Parenting Behaviours Scale

It is a 4-point Likert scale. This scale also measures the attitudes of students in separate scales for their parents. For mother form, descriptive analysis revealed that nine items out of 19 were skewed and also two items out of 19 had kurtosis problem. Three factors were extracted out of 18 items after excluding one item that had low communality. Resulting reliability of this version was 0.88. We also tried to obtain one factor instead of three factors. With this version, eight items were removed from the analysis and remaining 11 items composed of a new factor with a Cronbach alpha of 0.87

The same procedure was performed for father form too. Eleven out of 19 items were skewed and one item exceeded kurtosis level. For this version, three factors were obtained with 18 items and a Cronbach alpha of 0.90 after excluding Item 7. When items were forced into one factor, three items were excluded and remaining 16 items composed a new factor with a Cronbach alpha of 0.90.

This scale was already applied in Turkish samples. Therefore, we did not modify the wording of the sentences. However, Item 3 (*Yaptığın bir şey yüzünden, "artık seni sevmeyeceğini" söylediği olur mu?*) was removed after analysis because it was positively skewed and did not load any of the factors in mothers form. Besides, to deal with skewness problem we also changed the rating scale. In main study, this scale applied with a 5-point Likert form instead of 4 point.

Autonomous - Related Self –in- Family Scale

It was a 5-point Likert scale. Analysis revealed that eight items out of 14 were skewed and also four items out of 14 had kurtosis problems. The first analysis showed that all 14 items loaded to two factors with a Cronbach alpha of 0.78. Items were also forced to one factor. After excluding five items, remaining nine items composed a factor with a Cronbach alpha of 0.83. This scale consists of three subscales in its original form. In pilot study, we carried out only Autonomous-Related Self –in- Family Scale. For pilot study, items were revised and also new items were added to scale. After pilot session, we decided that new items did not overlap with the construct very well for this sample. Besides, conceptually, measuring autonomy and relatedness in separate scales might be a better idea. Last modification for this scale was to change the rating scale to deal with skewness. Therefore, in main study, autonomous self and related self is measured with different scales with 7-point Harter scale.

Acceptance of Parental Control Questionnaire

Participants rated the questionnaire differently for their parents. It was a 5-point Likert scale and previously used in other studies with Turkish samples. Both in mother and father form, all items were skewed. Both scales loaded on one factor. Reliability for mother form was 0.78 and father form was 0.80. We decided to use this scale in its original form because of its acceptable reliability values.

Selection-Optimization-Compensation Questionnaire

This scale is among the ones that newly-translated. It is a 5-point Likert scale. Descriptive analysis showed that 12 items out of 18 were negatively skewed and none of the items exceeded kurtosis level. First, all items were forced into three factors. Without extracting any of the items, three different factors were obtained with a Cronbach alpha of 0.88. We also tried to force all items into one factor. After excluding Item 9, 10 and 16 due to low communality (below 0.20), remaining 15 items composed a factor with a Cronbach alpha of 0.90. This scale presented a good reliability in both analyses, however, items were skewed. To deal with skewness problem, the rating scale is changed. Instead of 5-point Likert scale, we applied 7-point Harter scale. Besides, wording of some items were changed, because it might be slightly higher than the capacity of this age. As a result, we evidenced that this scale is applicable.

* Remaining four scales were included into pilot study for a different theses research, so the results will not be presented in the current study.

Appendix B Figures

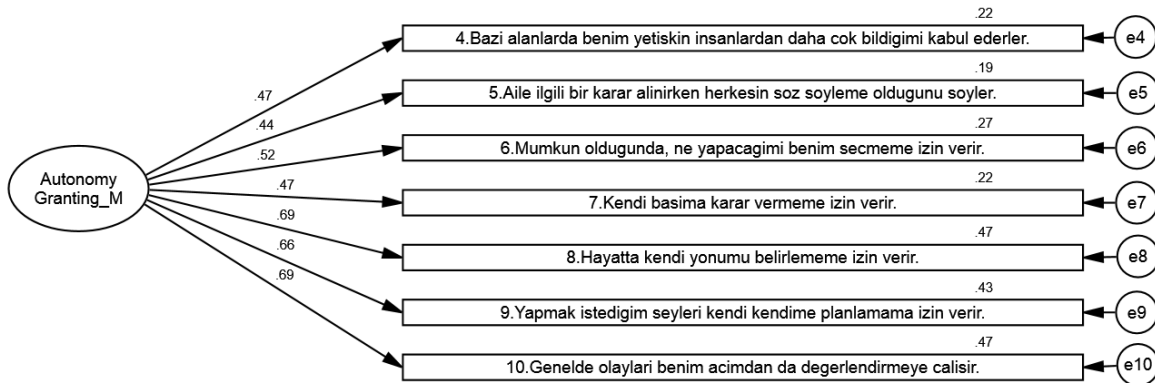


Figure 1. One factor measurement model of the autonomy granting for 6th graders-mothers (standardized regression weights: all paths are significant)

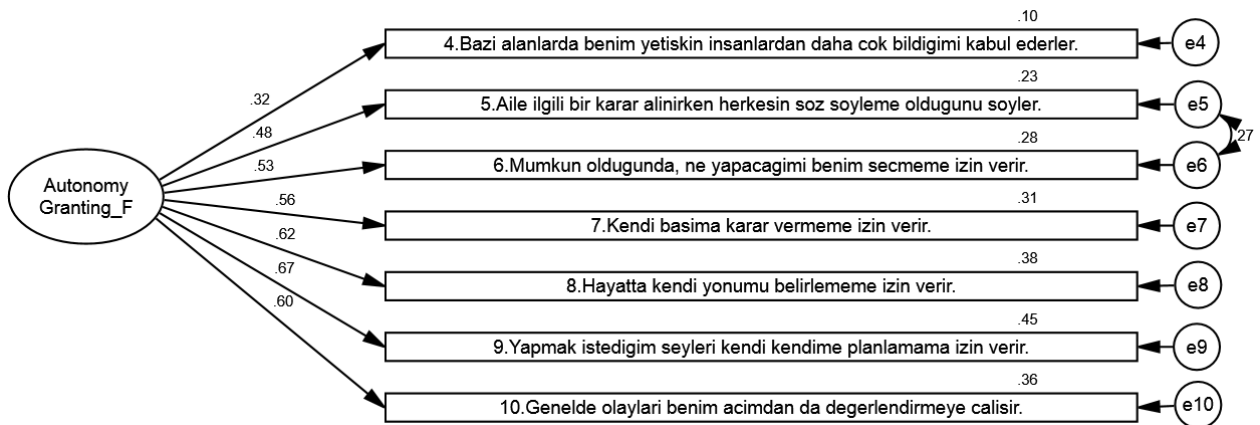


Figure 2. One factor measurement model of the autonomy granting for 6th graders-fathers (standardized regression weights: all paths are significant)

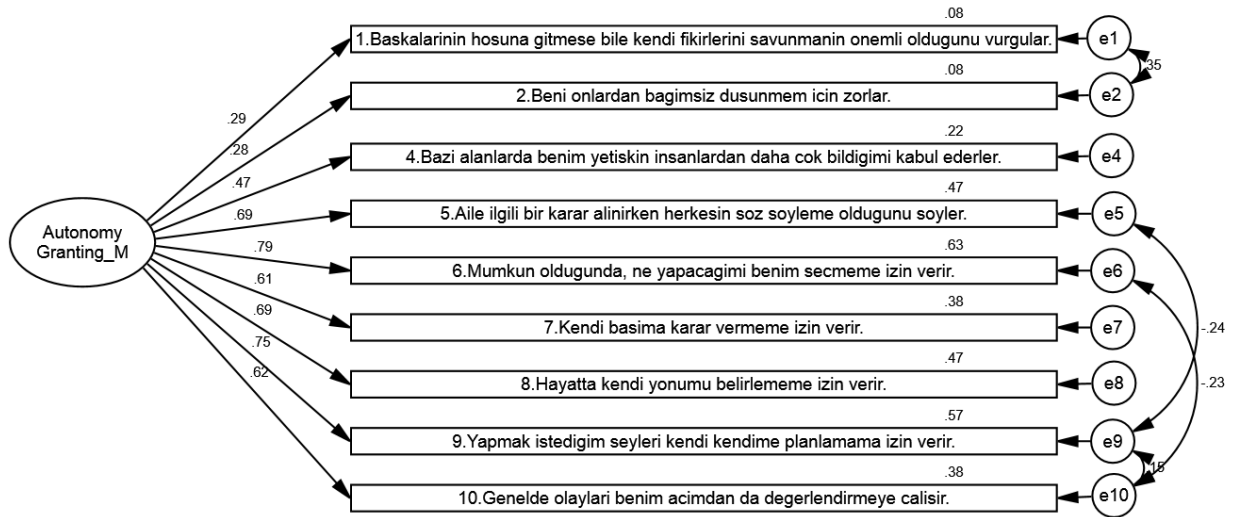


Figure 3. One factor measurement model of the autonomy granting for 8th graders-mothers (standardized regression weights: all paths are significant)

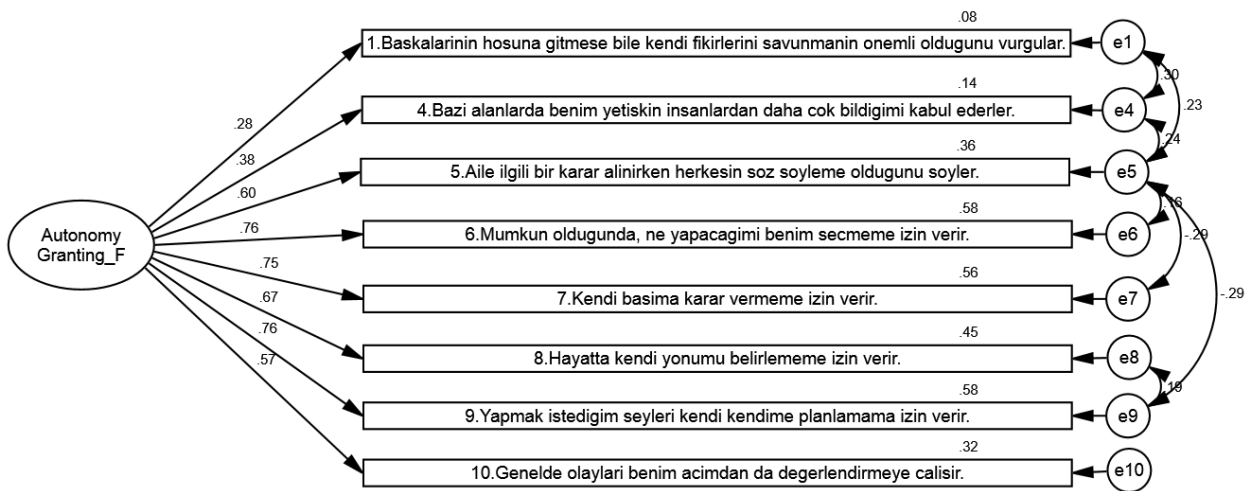


Figure 4. One factor measurement model of the autonomy granting for 8th graders-fathers (standardized regression weights: all paths are significant)

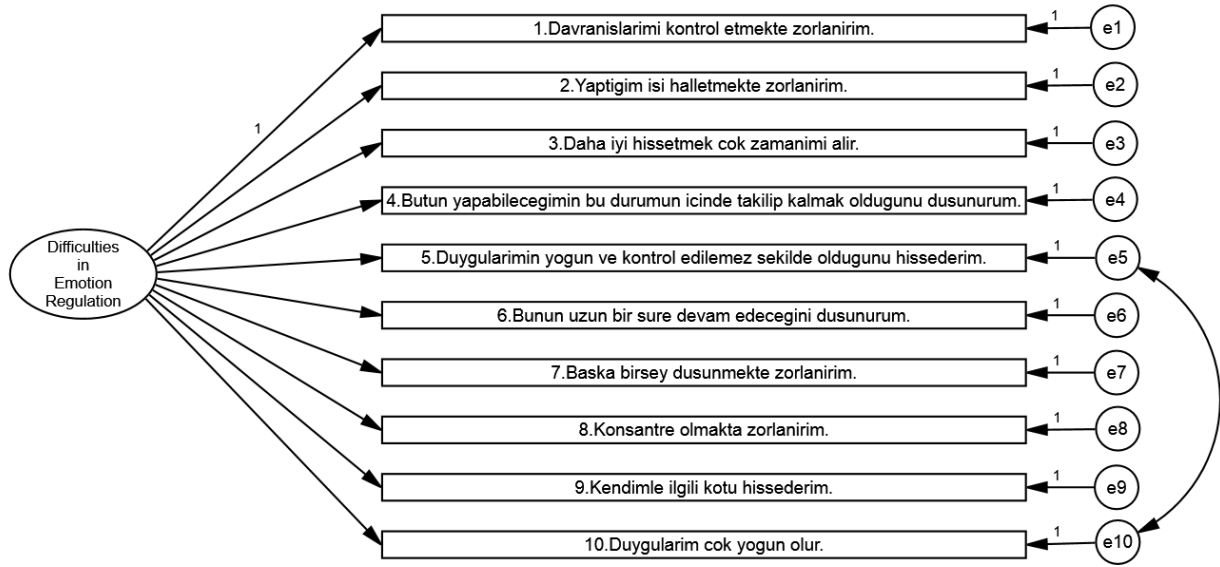


Figure 5. One factor measurement model of the difficulties in emotion regulation for 6th graders (standardized regression weights: all paths are significant)

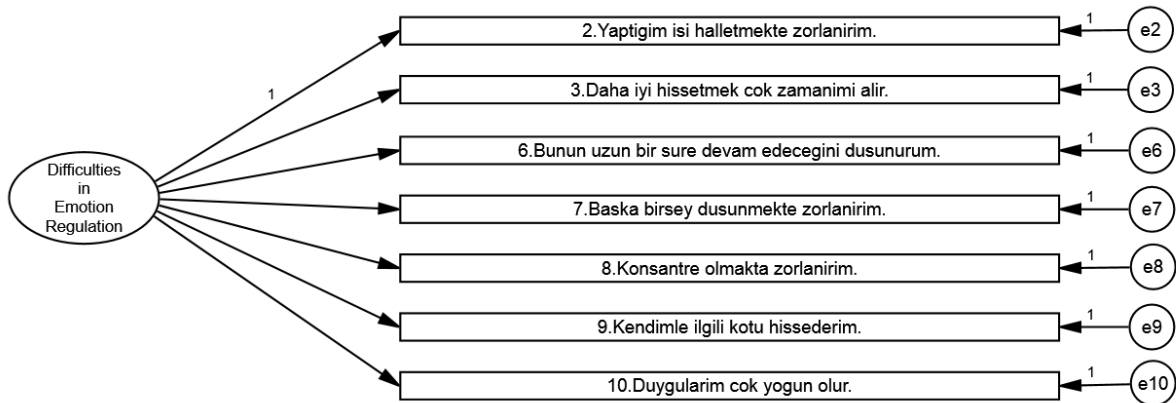


Figure 6. One factor measurement model of the difficulties in emotion regulation for 8th graders (standardized regression weights: all paths are significant)



Figure 7. One factor measurement model of the psychological control for 6th graders-mothers (standardized regression weights: all paths are significant)

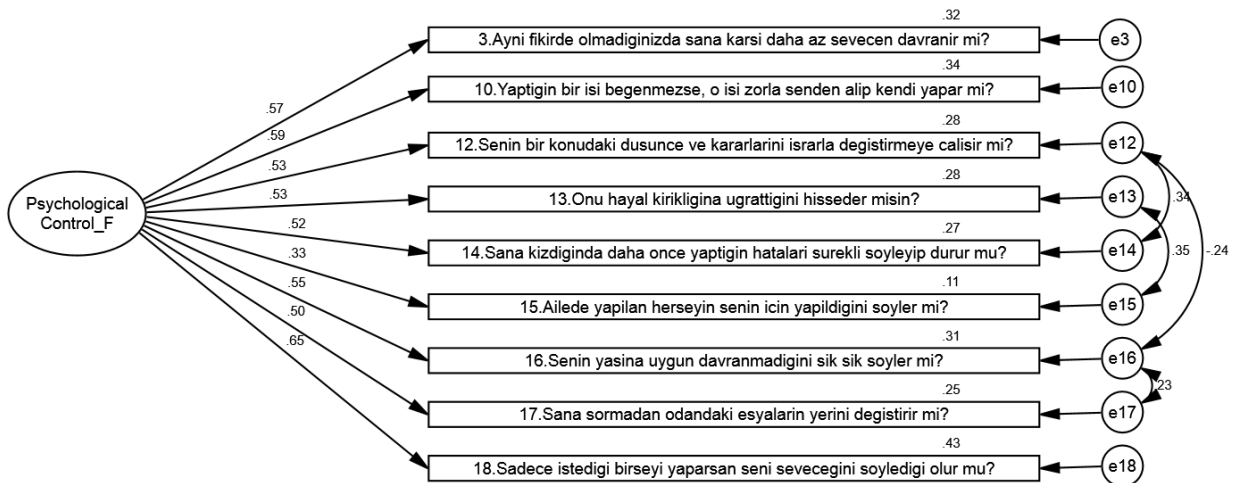


Figure 8. One factor measurement model of the psychological control for 6th graders-fathers (standardized regression weights: all paths are significant)

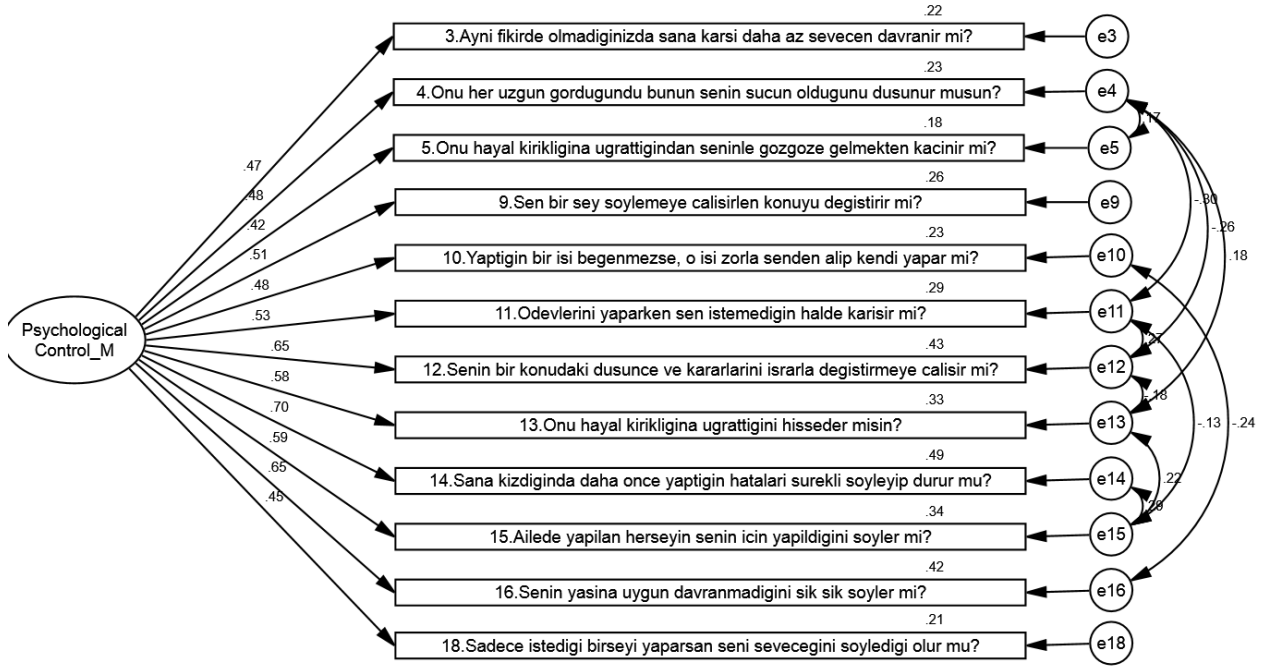


Figure 9. One factor measurement model of the psychological control for 8th graders-mothers (standardized regression weights: all paths are significant)

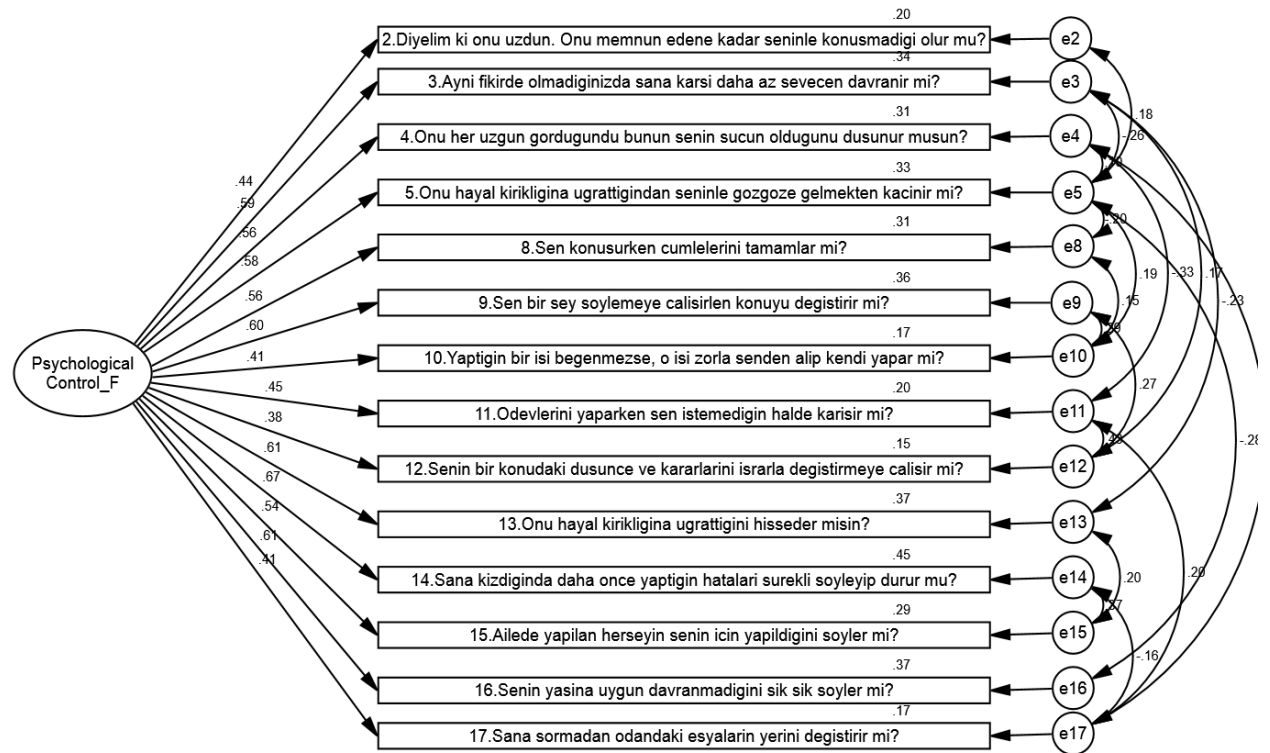


Figure 10. One factor measurement model of the psychological control for 8th graders-fathers (standardized regression weights: all paths are significant)

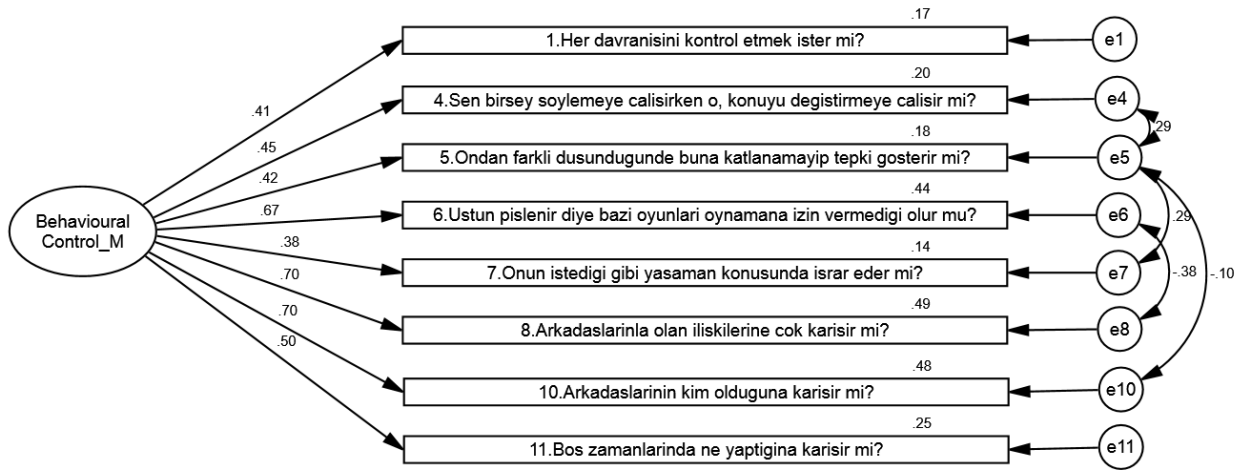


Figure 11. One factor measurement model of the behavioural control for 6th graders-mothers (standardized regression weights: all paths are significant)

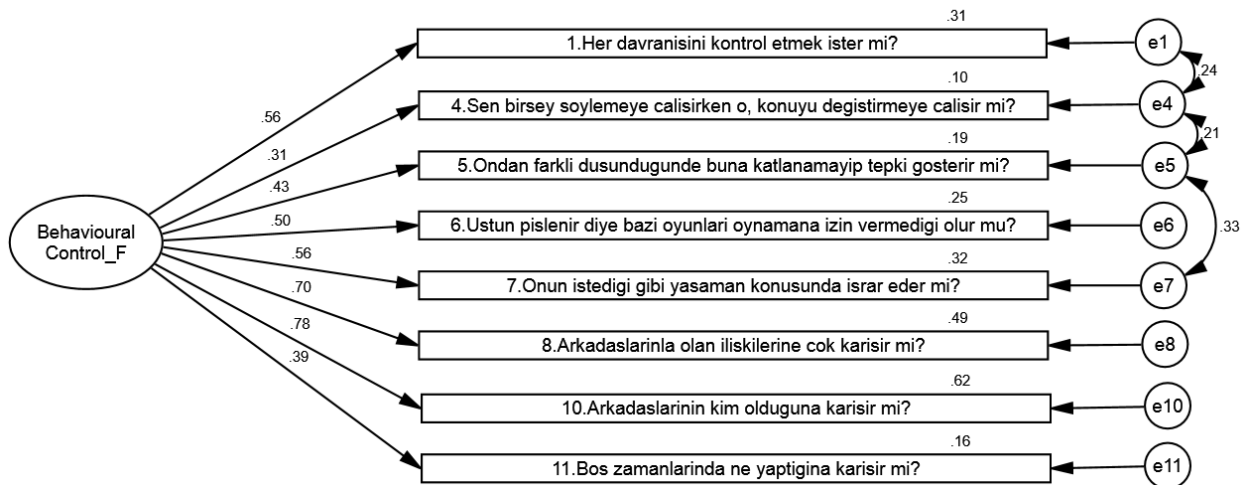


Figure 12. One factor measurement model of the behavioural control for 6th graders-fathers (standardized regression weights: all paths are significant)

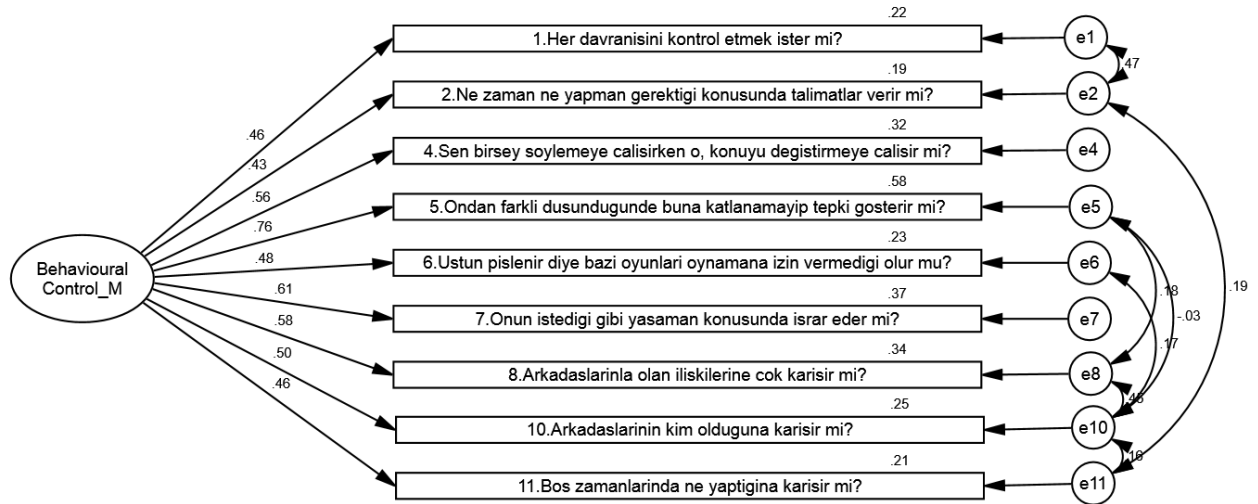


Figure 13. One factor measurement model of the behavioural control for 8th graders-mothers (standardized regression weights: all paths are significant)

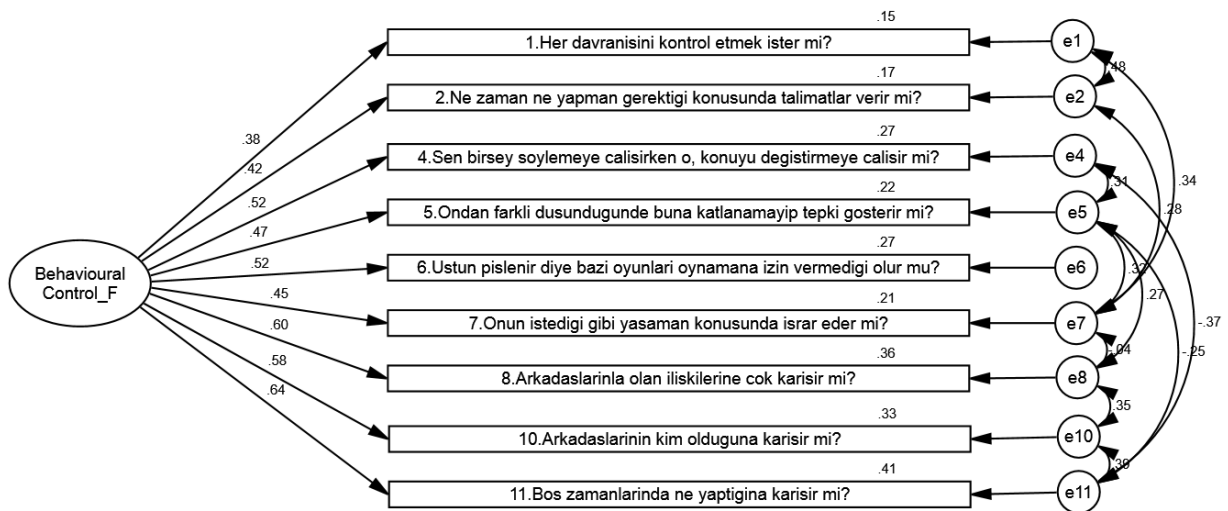


Figure 14. One factor measurement model of the behavioural control for 8th graders-fathers (standardized regression weights: all paths are significant)

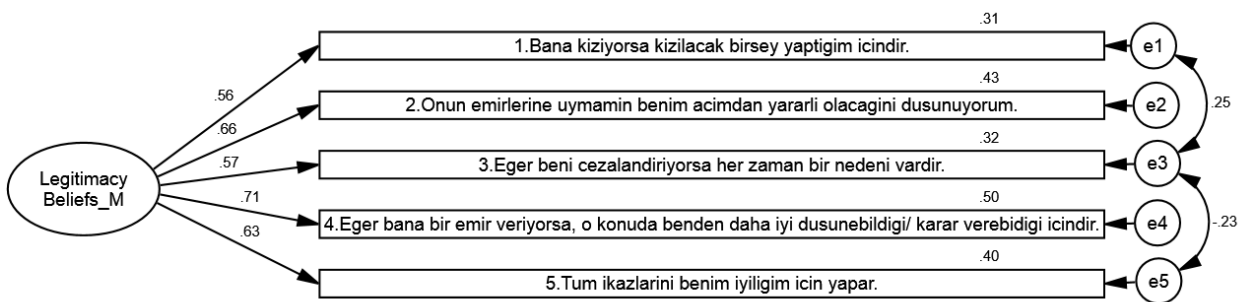


Figure 15. One factor measurement model of the legitimacy beliefs for 6th graders-mothers (standardized regression weights: all paths are significant)

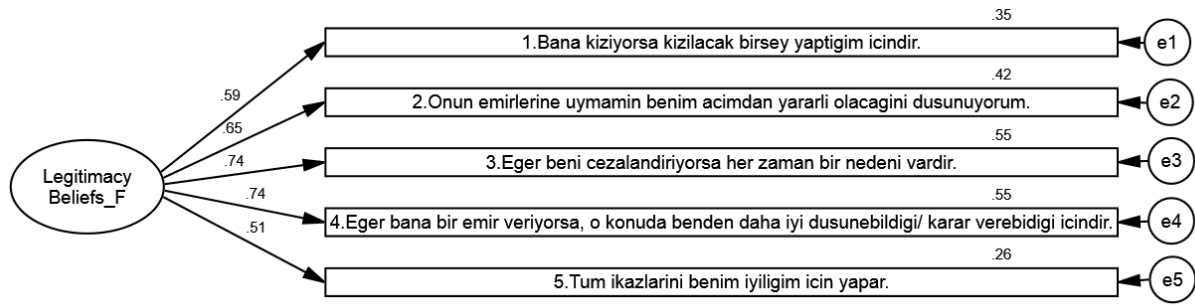


Figure 16. One factor measurement model of the legitimacy beliefs for 6th graders-fathers (standardized regression weights: all paths are significant)

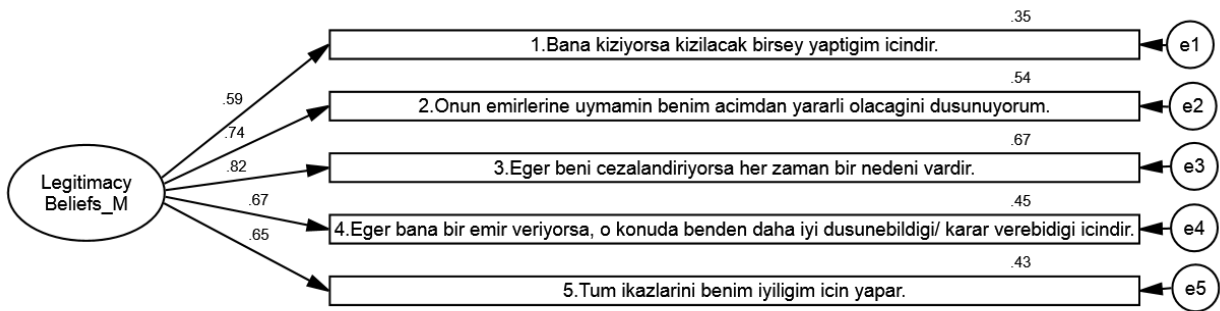


Figure 17. One factor measurement model of the legitimacy beliefs for 8th graders-mothers (standardized regression weights: all paths are significant)

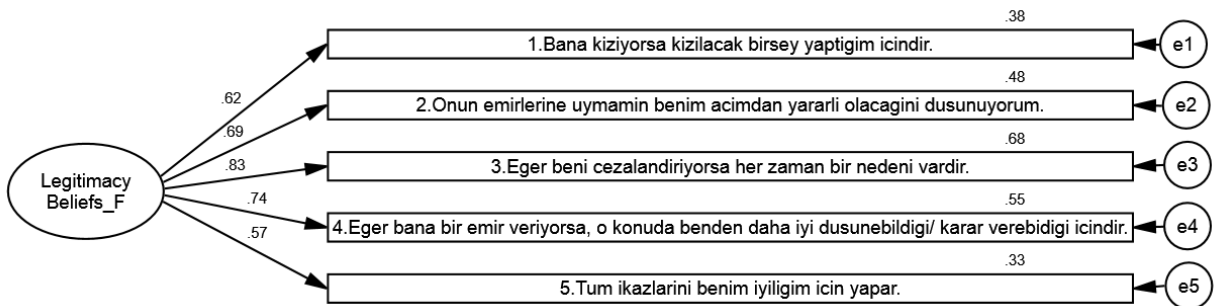


Figure 18. One factor measurement model of the legitimacy beliefs for 8th graders-fathers (standardized regression weights: all paths are significant)

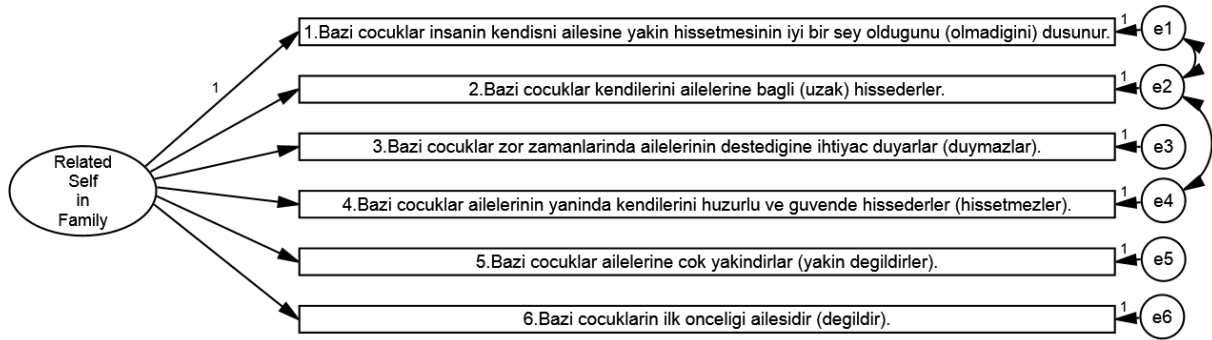


Figure 19. One factor measurement model of the related self-in-family for 6th graders (standardized regression weights: all paths are significant)

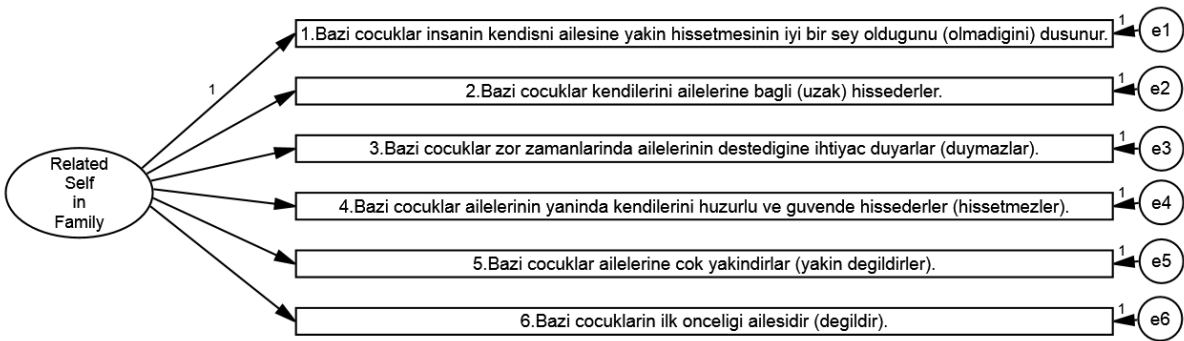


Figure 20. One factor measurement model of the related self-in-family for 8th graders (standardized regression weights: all paths are significant)

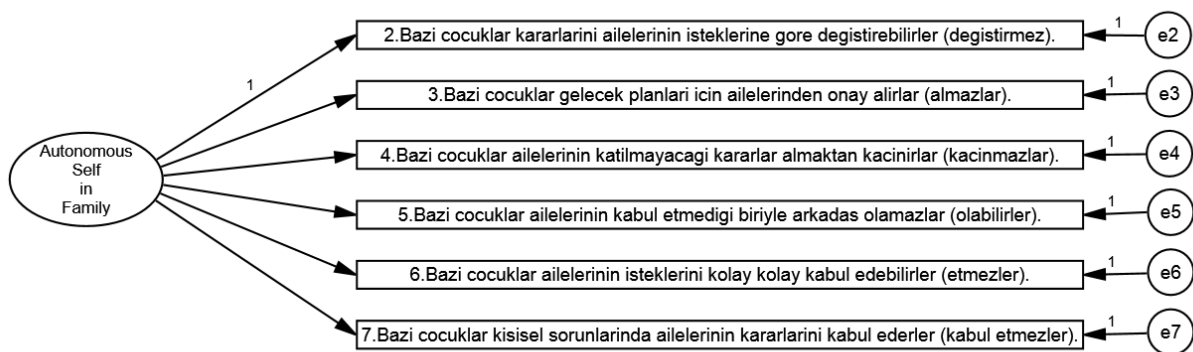


Figure 21. One factor measurement model of the autonomous self-in-family for 6th graders (standardized regression weights: all paths are significant)

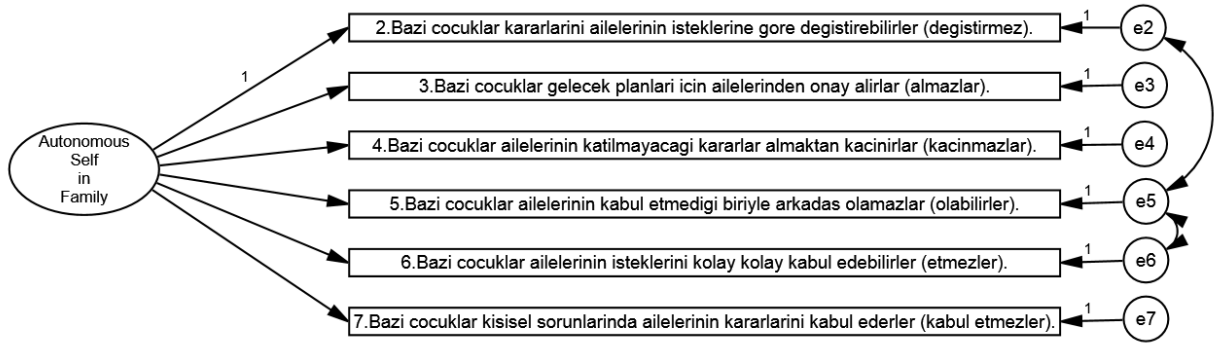


Figure 22. One factor measurement model of the autonomous self-in-family for 8th graders (standardized regression weights: all paths are significant)

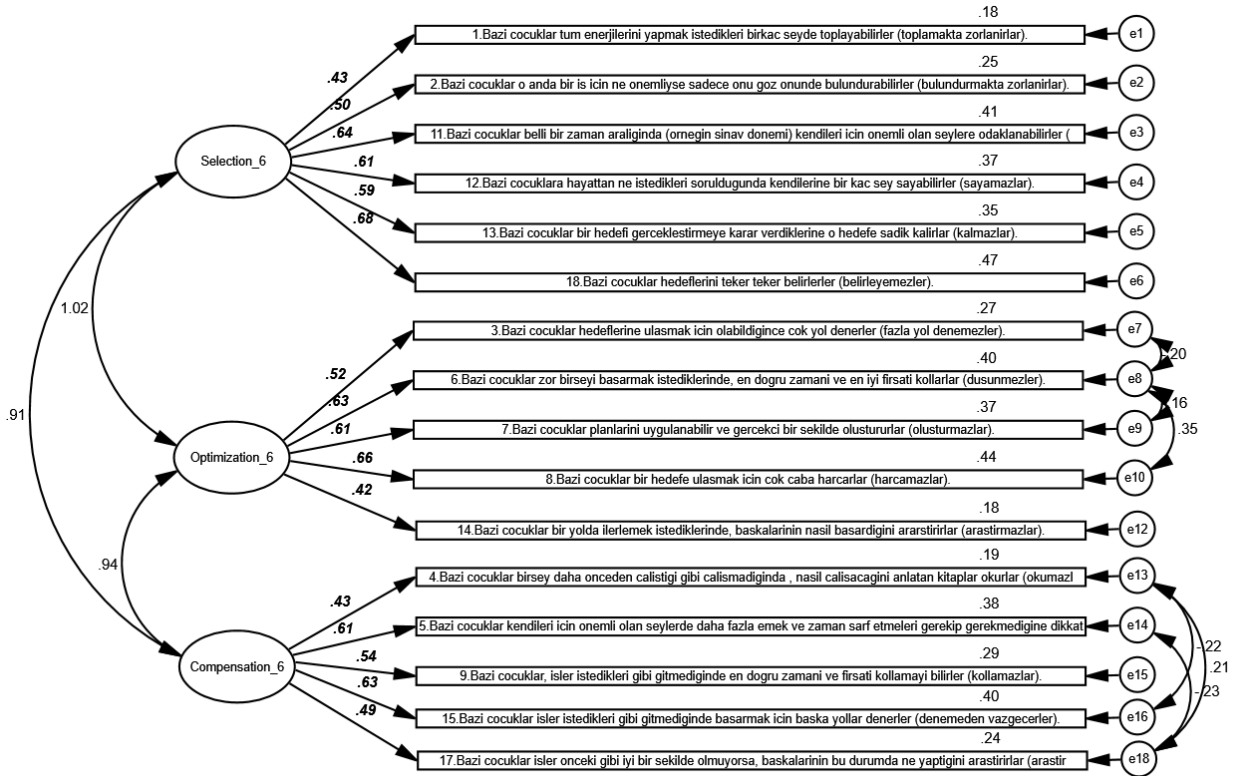


Figure 23. Three factor measurement model of the Selection-Optimization-Compensation for 6th graders (standardized regression weights: all paths are significant)

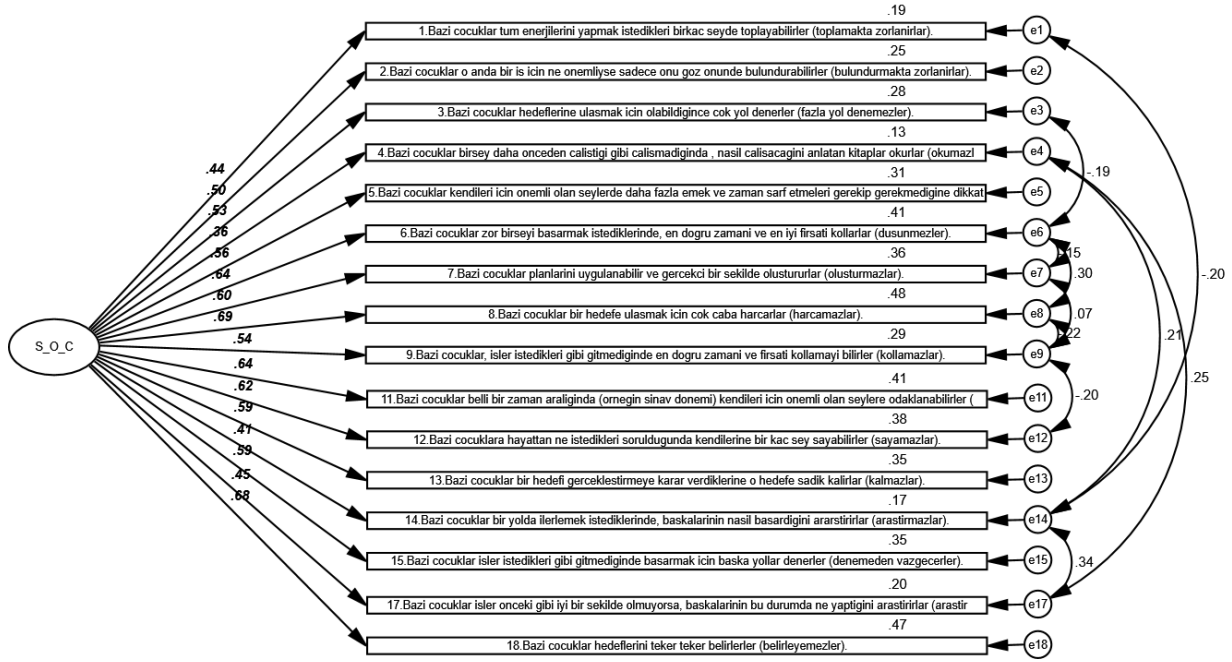


Figure 24. One factor measurement model of the Selection-Optimization-Compensation for 6th graders (standardized regression weights: all paths are significant)

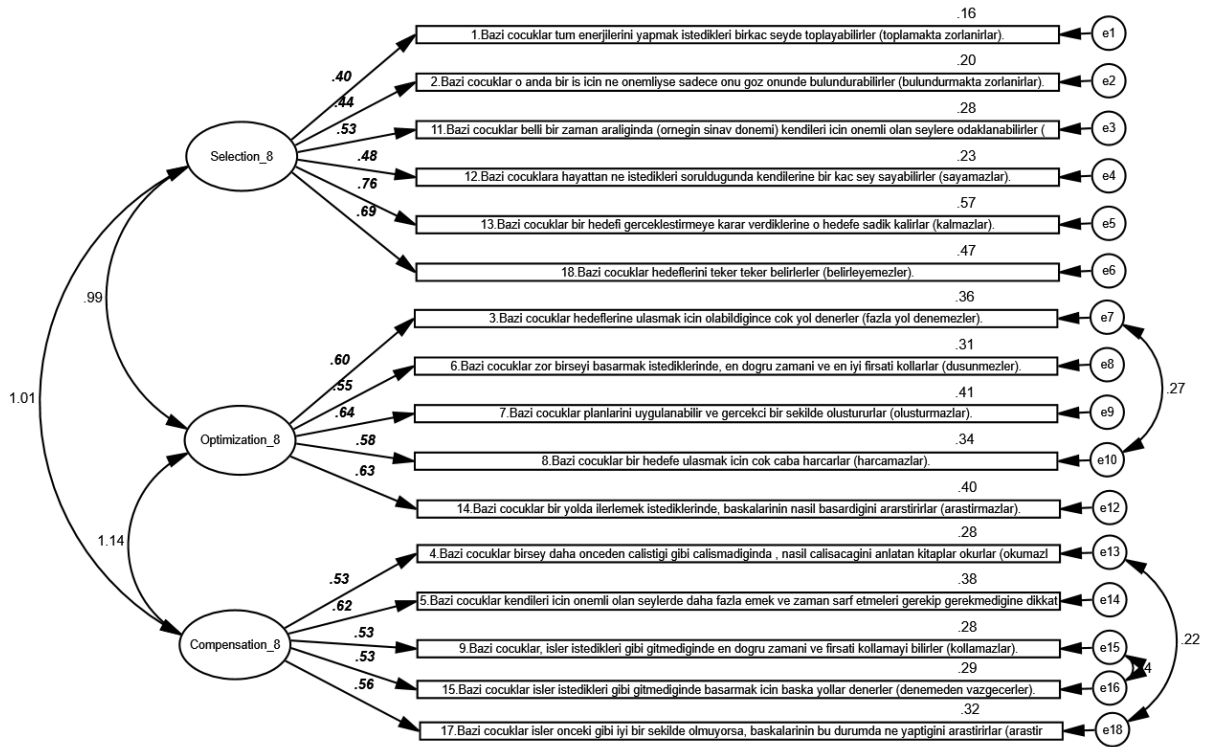


Figure 25. Three factor measurement model of the Selection-Optimization-Compensation for 8th graders (standardized regression weights: all paths are significant)

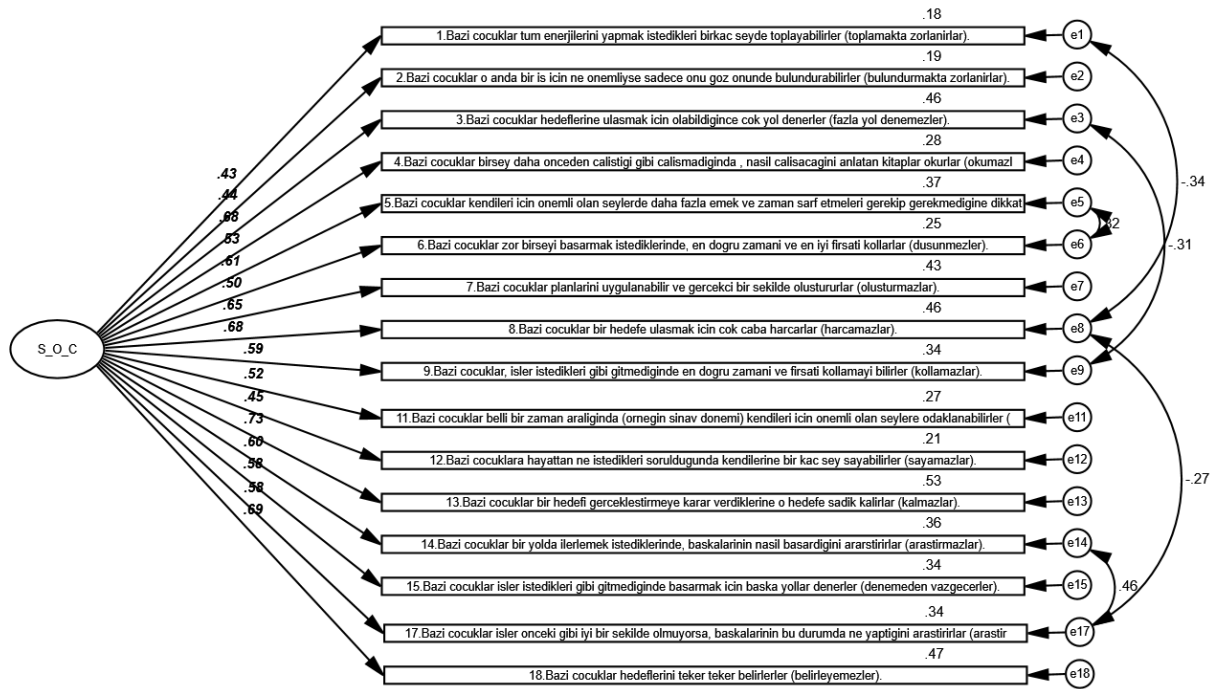


Figure 26. One factor measurement model of the Selection-Optimization-Compensation for 8th graders (standardized regression weights: all paths are significant)

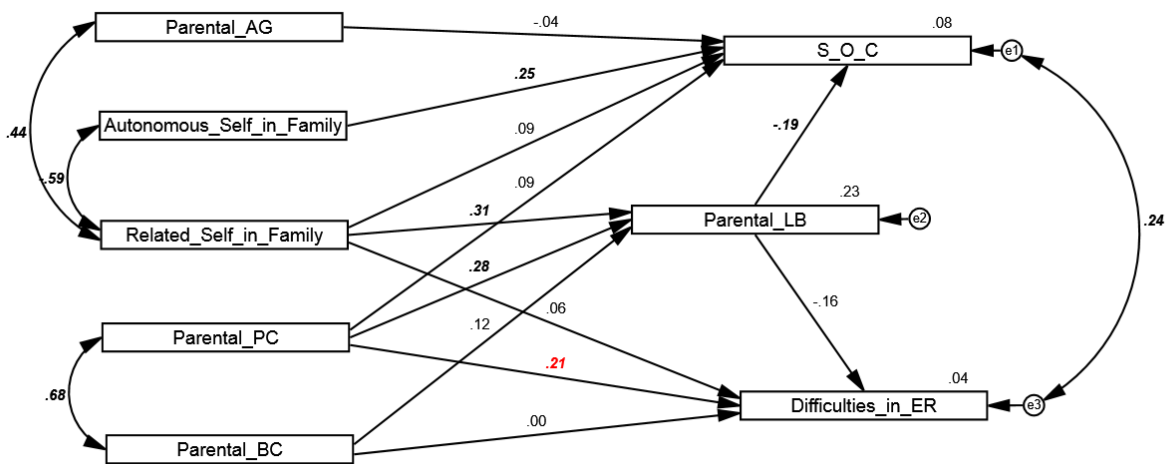


Figure 27a. Structural model of the relations between parental factors and emotion and self-regulation in low SES (standardized regression weights: paths written in bold italic are significant, paths written in red are marginally significant, Parental_AG: autonomy granting, Parental_PC: psychological control, Parental_BC: behavioural control, Parental_LB: legitimacy beliefs, Difficulties_in_ER: Difficulties in Emotion Regulation)

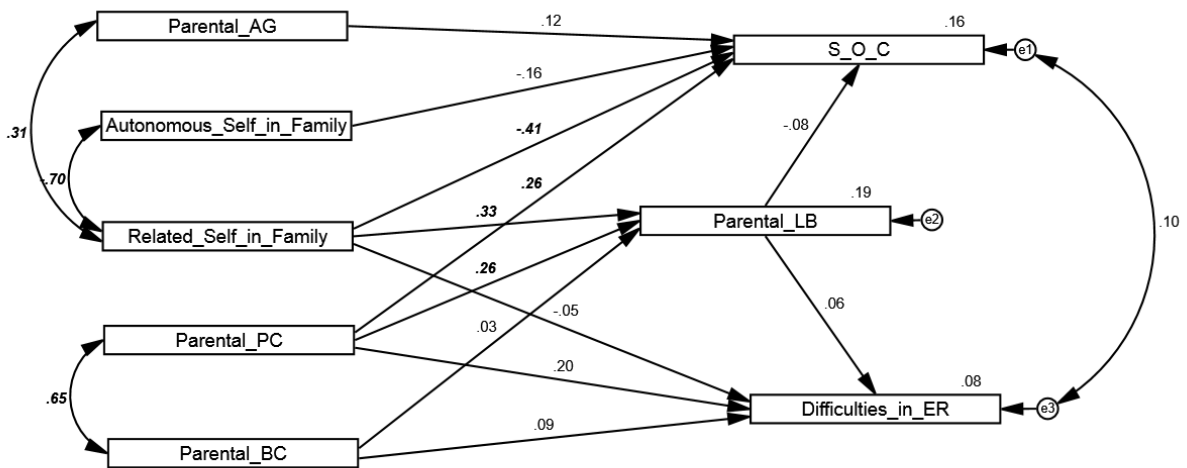


Figure 27b. Structural model of the relations between parental factors and emotion and self-regulation in middle SES (standardized regression weights: paths written in bold italic are significant)

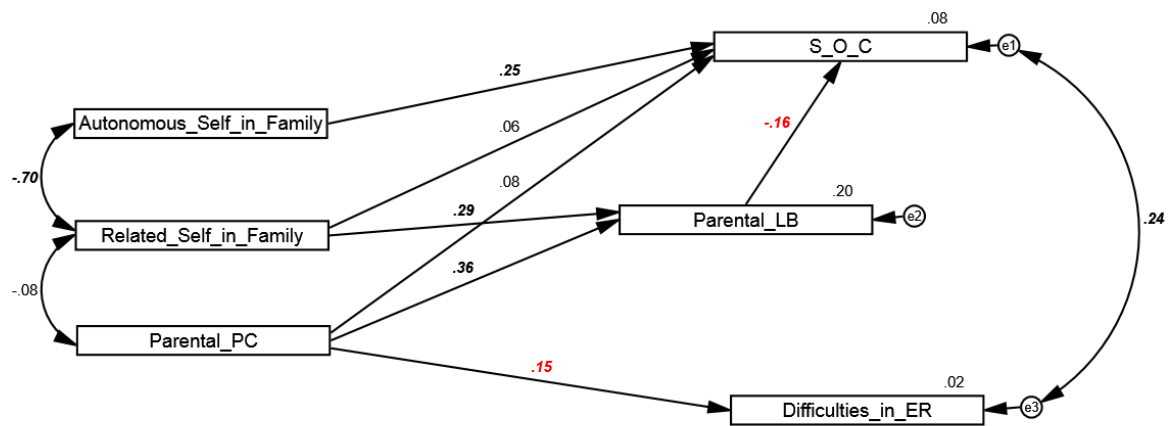


Figure 28a. The second version of structural model of the relations between parental factors and emotion and self-regulation in low SES (standardized regression weights: paths written in bold italic are significant, paths written in red are marginally significant)

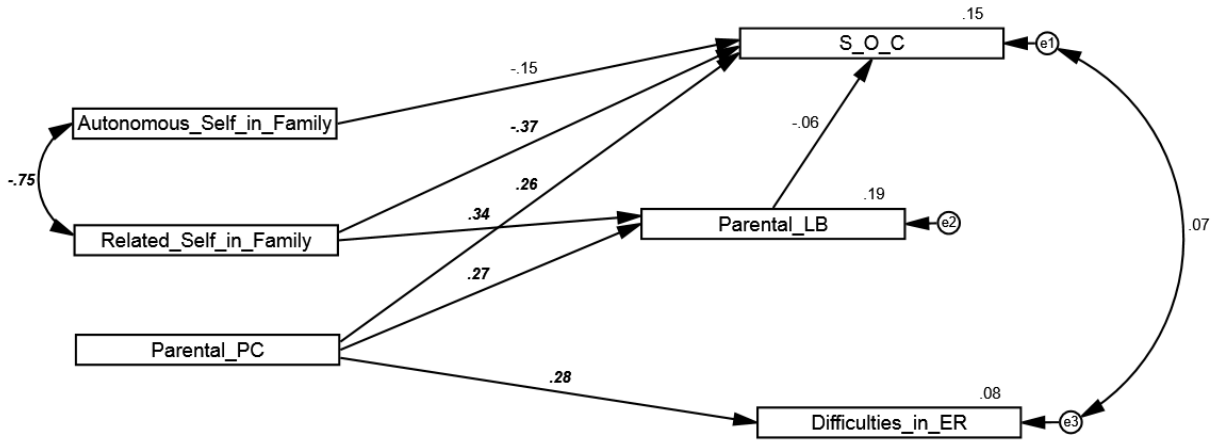


Figure 28b. The second version of structural model of the relations between parental factors and emotion and self-regulation in middle SES (standardized regression weights: paths written in bold italic are significant)

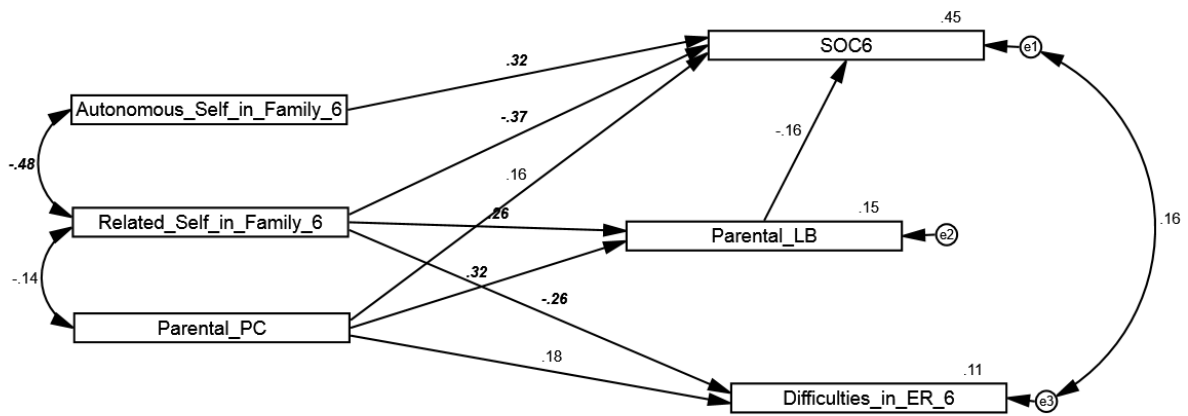


Figure 29a. Structural model of the relations between parental factors and emotion and self-regulation for 6th graders in low SES (standardized regression weights: paths written in bold italic are significant)

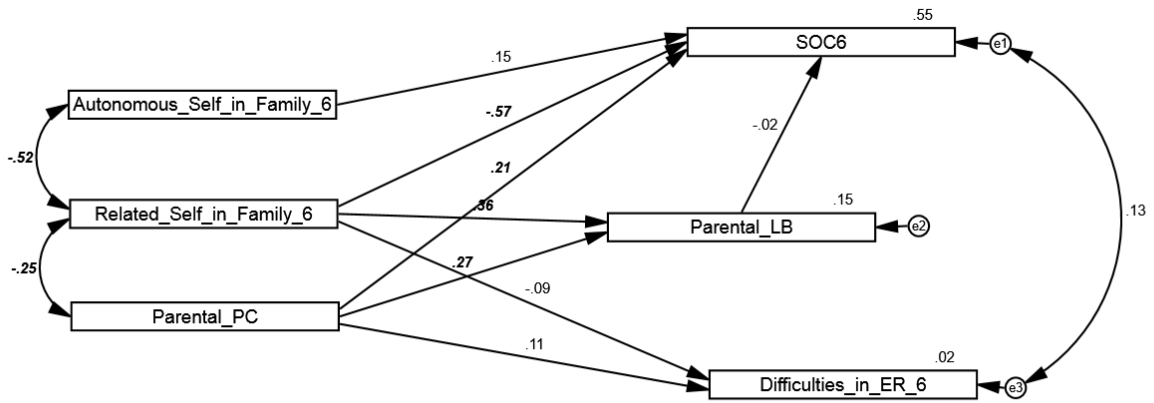


Figure 29 b. Structural model of the relations between parental factors and emotion and self-regulation for 6th graders in middle SES (standardized regression weights: paths written in bold italic are significant)

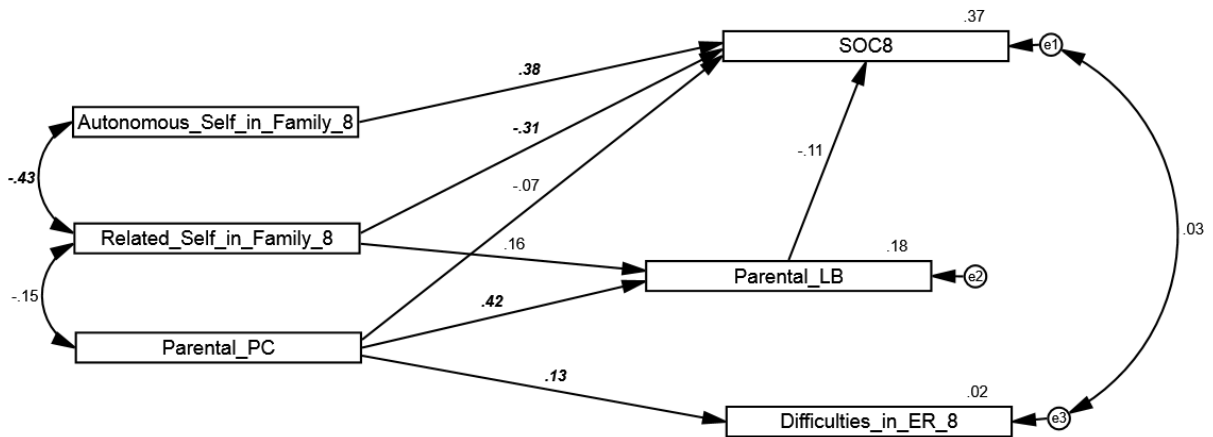


Figure 30a. Structural model of the relations between parental factors and emotion and self-regulation for 8th graders in low SES (standardized regression weights: paths written in bold italic are significant)

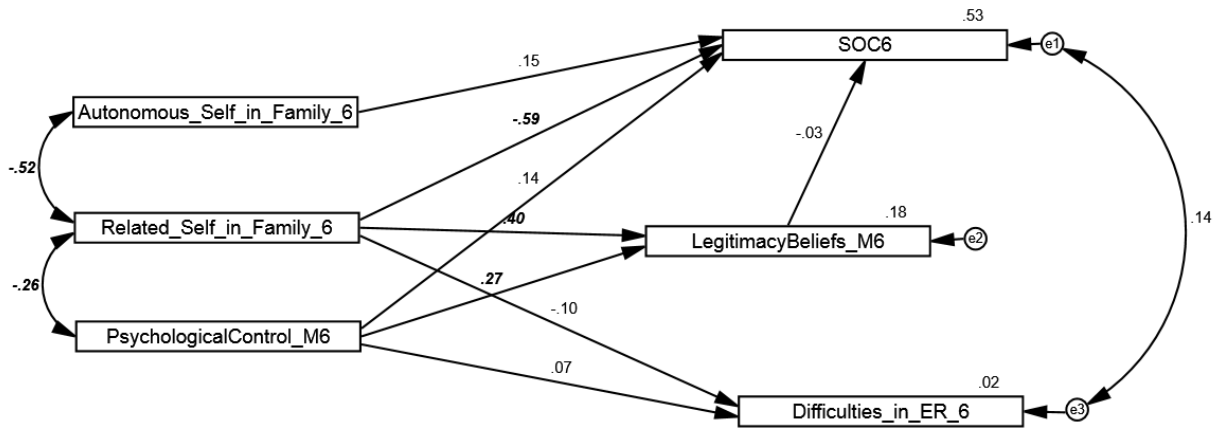


Figure 31b. Structural model of the relations between maternal factors and emotion and self-regulation for 6th graders in middle SES (standardized regression weights: paths written in bold italic are significant)

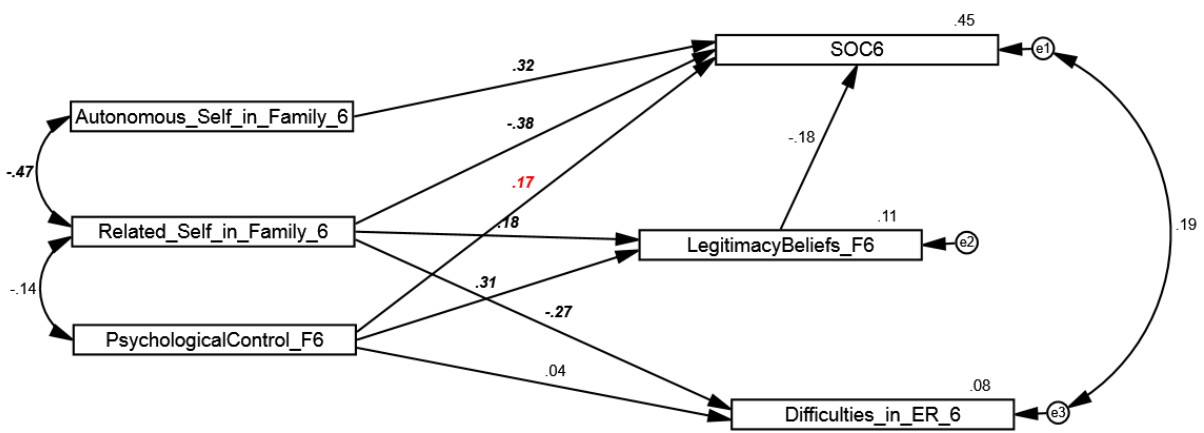


Figure 32a. Structural model of the relations between paternal factors and emotion and self-regulation for 6th graders in low SES (standardized regression weights: paths written in bold italic are significant, paths written in red are marginally significant)

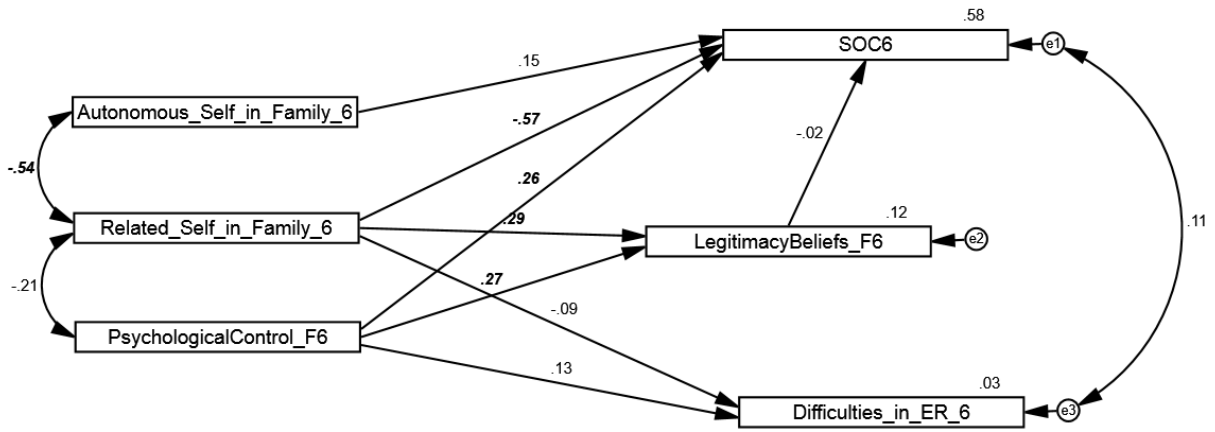


Figure 32b. Structural model of the relations between paternal factors and emotion and self-regulation for 6th graders in middle SES (standardized regression weights: paths written in bold italic are significant)

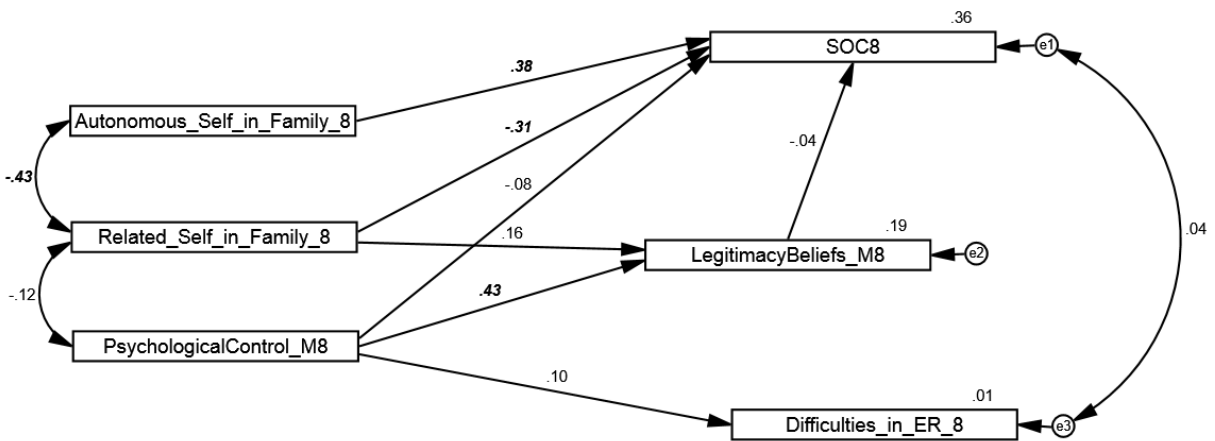


Figure 33a. Structural model of the relations between maternal factors and emotion and self-regulation for 8th graders in low SES (standardized regression weights: paths written in bold italic are significant)

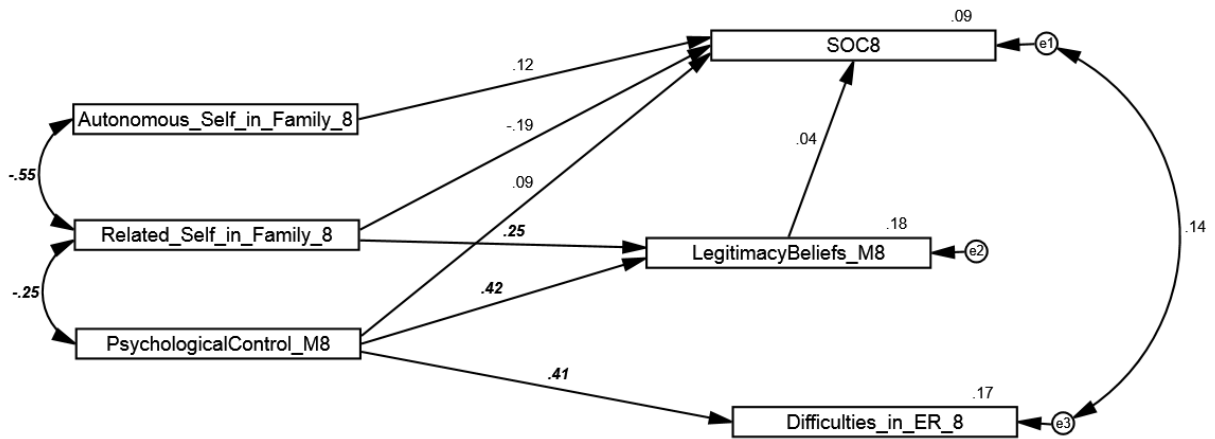


Figure 33b. Structural model of the relations between maternal factors and emotion and self-regulation for 8th graders in middle SES (standardized regression weights: paths written in bold italic are significant)

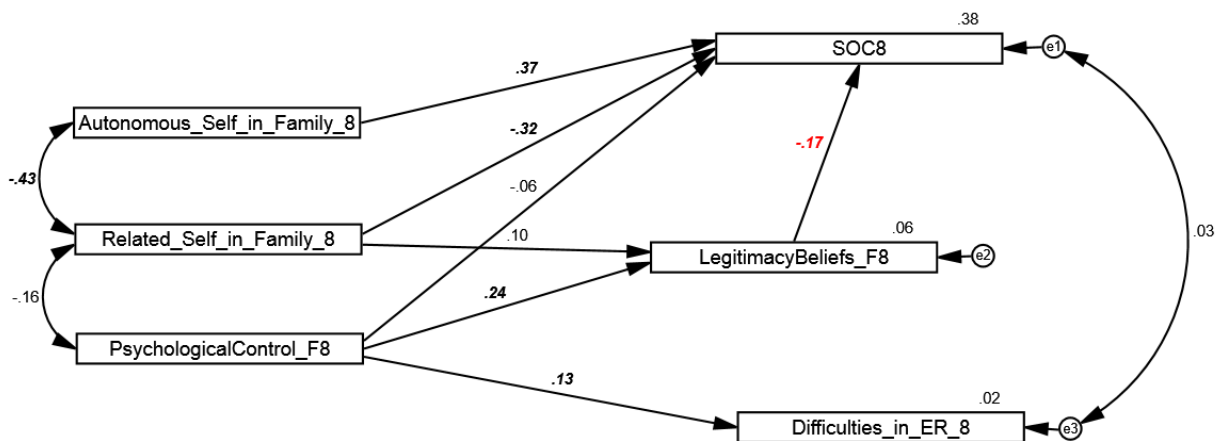


Figure 34a. Structural model of the relations between paternal factors and emotion and self-regulation for 8th graders in low SES (standardized regression weights: paths written in bold italic are significant, paths written in red are marginally significant)

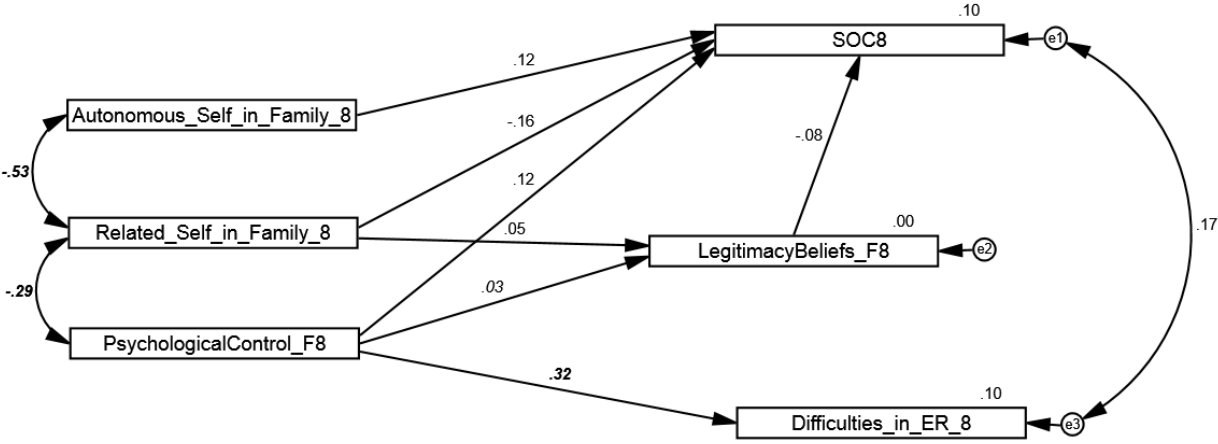


Figure 34b. Structural model of the relations between paternal factors and emotion and self-regulation for 8th graders in middle SES (standardized regression weights: paths written in bold italic are significant)

Appendix C Demographic Information

1. Adınız-Soyadınız:

2. Okulunuz:

3. Sınıfınız:

4. Cinsiyetiniz:

Kadın

Erkek

5. Doğum tarihinizi gün / ay / yıl olarak belirtiniz:

--	--	--	--	--	--	--	--	--	--

6. Annenizin eğitim durumu nedir?

İlkokul

Orta Okul

Lise/ Lise Dengi Terk

Lise/ Lise Dengi Mezunu

Üniversite veya üstü

7. Babanızın eğitim durumu nedir?

İlkokul

Orta Okul

Lise/ Lise Dengi Terk

Lise/ Lise Dengi Mezunu

Üniversite veya üstü

8. Anneniz çalışıyor mu?

Evet → Annenizin işi nedir? _____

Hayır

9. Babanız çalışıyor mu?

Evet → Babanızın işi nedir? _____

Hayır

10. Ailenizin toplam aylık geliri yaklaşık olarak ne kadardır?

- 0 - 600 TL
- 600 - 1000 TL
- 1000 – 2000 TL
- 2000 – 4000 TL
- 4000 TL ve üzeri

11. Geçtiğimiz eğitim yılının sonunda karneniz nasıl geldi?

- Takdir belgesi aldım.
- Teşekkür belgesi aldım.
- Herhangi bir başarı belgesi almadım.

Appendix D Selection-Optimization-Compensation Scale

Aşağıda bazı durumlar anlatılıyor. Her durumu dikkatle oku. Sen kendini **HANGİ DURUMA** daha yakın görüyorsan, o duruma o kadar yakın olan noktayı doldur. Unutma, her sırada SADECE BİR NOKTAYI dolduracaksın.



1-

Bazı çocuklar tüm enerjilerini yapmak istedikleri birkaç şeyde **toplayabilirler.**

Bazı çocuklar tüm enerjilerini yapmak istedikleri birkaç şeyde **toplamakta zorlanırlar.**



2-

Bazı çocuklar o anda bir iş için ne önemliyse sadece onu göz önünde **bulundurabilirler.**

Bazı çocuklar o anda bir iş için ne önemliyse sadece onu göz önünde **bulundurmakta zorlanırlar.**



3-

Bazı çocuklar hedeflerine ulaşmak için olabildiğince çok yol **denerler.**

Bazı çocuklar hedeflerine ulaşmak için **fazla yol denemezler.**



4-

Bazı çocukların bir şey daha önceden çalıştığı gibi çalışmadığında, nasıl çalışacağını anlatan kitaplar **okurlar.**

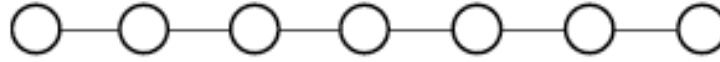
Bazı çocukların bir şey daha önceden çalıştığı gibi çalışmadığında, nasıl çalışacağını anlatan kitaplar **okumazlar.**



5-

Bazı çocuklar kendileri için önemli olan şeylerde daha fazla emek ve zaman sarf etmeleri gerekip gerekmediğine **dikkat ederler.**

Bazı çocuklar kendileri için önemli olan şeylerde daha fazla emek ve zaman sarf etmeleri gerekip gerekmediğine **dikkat etmezler.**



6-*

Bazı çocuklar zor bir şeyi başarmak istediklerinde, en doğru zamanı ve en iyi **fırsatı kollarlar.**

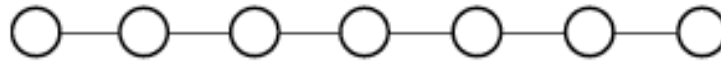
Bazı çocuklar zor bir şeyi başarmak istediklerinde, en doğru zamanı ve en iyi fırsatı **düşünmezler.**



7-

Bazı çocuklar planlarını uygulanabilir ve gerçekçi şekilde **oluştururlar.**

Bazı çocuklar planlarını uygulanabilir ve gerçekçi şekilde **oluşturamazlar.**



8-

Bazı çocuklar bir hedefe ulaşmak için çok çaba **harcırlar.**

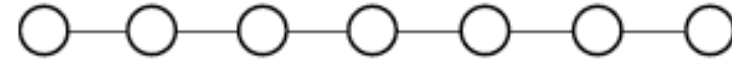
Bazı çocuklar bir hedefe ulaşmak için çok çaba **harcamazlar.**



9-

Bazı çocuklar, işler istedikleri gibi gitmediğinde en doğru zamanı ve fırsatı **kollamayı bilirler.**

Bazı çocuklar, işler istedikleri gibi gitmediğinde en doğru zamanı ve fırsatı **kollamazlar.**



10-

Bazı çocuklar başarıma imkânlarının düşük olduğunu düşündükleri şeyleri denemekten **vazgeçerler.**

Bazı çocuklar başarıma imkânlarının düşük olduğunu düşündükleri şeyler olsa bile denemekten **vazgeçmezler.**



11-

Bazı çocuklar belli bir zaman aralığında (örneğin sınav dönemi) kendileri için önemli olan şeylere **odaklanabilirler.**

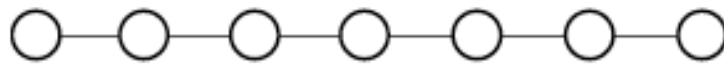
Bazı çocuklar belli bir zaman aralığında (örneğin sınav dönemi) kendileri için önemli olan şeylere **odaklanamazlar.**



12-

Bazı çocuklara hayattan ne istekleri sorulduğunda kendilerine birkaç şey **sayabilirler.**

Bazı çocuklara hayattan ne istekleri sorulduğunda kendilerine birkaç şey **sayamazlar.**



13-

Bazı çocuklar bir hedefi gerçekleştirmeye karar verdiklerinde o hedefe sonuna kadar **sadık kalırlar.**

Bazı çocuklar bir hedefi gerçekleştirmeye karar verdiklerinde bile o hedefe **sadık kalmayabilirler.**



14-

Bazı çocuklar bir yolda ilerlemek istediklerinde, başkalarının nasıl başardığını **araştırırlar.**

Bazı çocuklar bir yolda ilerlemek istediklerinde, başkalarının nasıl başardığını **araştırmazlar.**



15-

Bazı çocuklar işler istedikleri gibi gitmediğinde başarmak için başka yollar **denerler.**

Bazı çocuklar işler istedikleri gibi gitmediğinde başarmak için başka yollar **denemeden vazgeçerler.**



16-

Bazı çocuklar bir şeyi eskisi gibi yapamıyorsa, başka birisinin yapmasını **isterler.**

Bazı çocuklar bir şeyi eskisi gibi yapamıyorsa, başka birisinin yapmasını **istememezler.**



17-

Bazı çocuklar işler önceki gibi iyi bir şekilde olmuyorsa, **başkalarının** bu durumda ne yaptığını **araştırırlar.**

Bazı çocuklar işler önceki gibi iyi bir şekilde olmuyorsa, başkalarının bu durumda ne yaptığını **araştırmazlar.**



18-

Bazı çocuklar hedeflerini teker teker **belirlerler.**

Bazı çocuklar hedeflerini teker teker **belirleyemezler.**

*Item 6 is mistranslated. In the original form it is; “When things aren’t going so well, I accept help from others.” However, in the current scale it is translated as “When things aren’t going so well, I wait for the right moment and the best opportunity.”

Appendix E
Difficulties in Emotion Regulation Scale

Aşağıdaki cümlelerin senin için ne kadar doğru olduğunu öğrenmek istiyoruz. Bu cümleler sence doğru olabilir ya da olmayabilir. Her cümle ne kadar doğru ise o kutucuğu işaretle.

Sinirlendiğim zaman...		Hiç doğru değil	Doğru değil	Kısmen doğru	Doğru	Çok doğru
1	Davranışlarımı kontrol etmekte zorlanırım.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Yaptığım işi halletmekte zorlanırım.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Daha iyi hissetmek çok zamanımı alır.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Bütün yapabileceğimin bu sorunun içinde takılıp kalmak olduğunu düşünürüm.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Duygularımın yoğun ve kontrol edilemez şekilde olduğunu hissederim.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Bunun uzun bir süre devam edeceğini düşünürüm.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Başka bir şey düşünmekte zorlanırım.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Konsantre olmakta zorlanırım.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	Kendimle ilgili kötü hissederim.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	Duygularım çok yoğun olur.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Appendix F
Autonomous Self-in-Family & Related Self-in-Family Scales

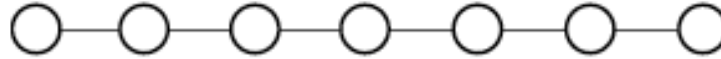
Aşağıda bazı durumlar anlatılıyor. Her durumu dikkatle oku. Sen kendini **HANGİ DURUMA** daha yakın görüyorsan, o duruma o kadar yakın olan noktayı doldur. Unutma, her sırada SADECE BİR NOKTAYI dolduracaksın.

Örnek:



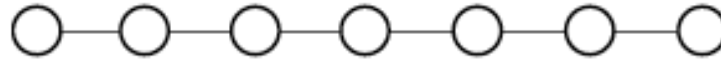
Hava bu gün çok soğuk.

Hava bu gün çok ılık.



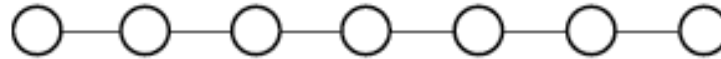
1- Bazı çocuklar insanın kendisini ailesine yakın hissetmesinin iyi bir şey **olduğunu** düşünür.

Bazı çocuklar insanın kendisini ailesine yakın hissetmesinin iyi bir şey **olmadığını** düşünür.



2- Bazı çocuklar kendilerini ailelerine **bağlı** hissederler.

Bazı çocuklar kendilerini ailelerinden **uzak** hissederler.



3- Bazı çocuklar zor zamanlarında ailelerinin desteğine ihtiyaç **duyarlar**.

Bazı çocuklar zor zamanlarında ailelerinin desteğine ihtiyaç **duymazlar**.



4-

Bazı çocuklar ailelerinin yanında kendilerini huzurlu ve güvende **hissederler.**

Bazı çocuklar ailelerinin yanında kendilerini huzurlu ve güvende **hissetmezler.**



5-

Bazı çocuklar ailelerine **çok yakındırlar.**

Bazı çocuklar ailelerine **yakın değildirler.**



6-

Bazı çocukların ilk önceliği **ailesidir.**

Bazı çocukların ilk önceliği **ailesi değildir.**



7-

Bazı çocuklar kararlarını ailelerinden bağımsız kolayca **verebilir.**

Bazı çocuklar kararlarını ailelerinden bağımsız **vermekte zorlanırlar.**



8-

Bazı çocuklar kararlarını ailelerinin isteklerine göre **değiştirebilir.**

Bazı çocuklar kararlarını ailelerinin isteklerine göre **değiştirmezler.**



9-

Bazı çocuklar gelecek planları için ailelerinden onay **alırlar.**

Bazı çocuklar gelecek planları için ailelerinden onay **almazlar.**



10-

Bazı çocuklar ailelerinin katılmayacağı kararlar almaktan **kaçınırlar.**

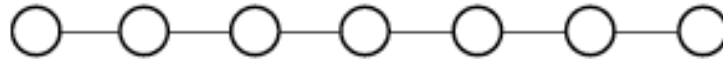
Bazı çocuklar ailelerinin katılmayacağı kararlar almaktan **kaçınmazlar.**



11-

Bazı çocuklar ailelerinin kabul etmediği biriyle **arkadaş olmazlar.**

Bazı çocuklar ailelerinin kabul etmediği biriyle **arkadaş olabilirler.**



12-

Bazı çocuklar genellikle ailelerinin isteklerini **kabul ederler.**

Bazı çocuklar ailelerinin isteklerini kolay kolay **kabul etmezler.**



13-

Bazı çocuklar kişisel sorunlarında ailelerinin kararlarını **kabul ederler.**

Bazı çocuklar kişisel sorunlarında ailelerinin kararlarını **kabul etmezler.**

