



Hacettepe University Graduate School of Social Sciences

Department of Psychology

Developmental Psychology

**INTERPARENTAL RELATIONSHIP AND ADOLESCENT
ADJUSTMENT: THE MEDIATING ROLES OF PSYCHOLOGICAL
CONTROL, AUTONOMY SUPPORT, AND BASIC
PSYCHOLOGICAL NEEDS**

Aylin KOÇAK

Ph. D. Dissertation

Ankara, 2019

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ACCEPTANCE AND APPROVAL

The jury finds that Aylin Koçak has on the date of 10.07.2019 successfully passed the defense examination and approves her Ph. D. Dissertation titled "Interparental Relationship and Adolescent Adjustment: The Mediating Roles of Psychological Control, Autonomy Support, and Basic Psychological Needs".



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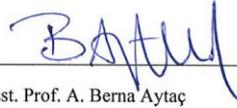
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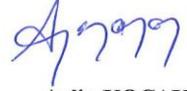
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ETİK BEYAN

Bu çalışmadaki bütün bilgi ve belgeleri akademik kurallar çerçevesinde elde ettiğimi, görsel, işitsel ve yazılı tüm bilgi ve sonuçları bilimsel ahlak kurallarına uygun olarak sunduğumu, kullandığım verilerde herhangi bir tahrifat yapmadığımı, yararlandığım kaynaklara bilimsel normlara uygun olarak atıfta bulunduğumu, tezimin kaynak gösterilen durumlar dışında özgün olduğunu, **Prof. Dr. Zehra UÇANOK ve Dr. Öğr. Üyesi Athanasios MOURATIDIS** danışmanlığında tarafımdan üretildiğini ve Hacettepe Üniversitesi Sosyal Bilimler Enstitüsü Tez Yazım Yönergesine göre yazıldığımı beyan ederim.



Aylin KOÇAK

TO MY BELOVED MOTHER

ABSTRACT

KOÇAK, Aylin. “*Interparental Relationship and Adolescent Adjustment: The Mediating Roles of Psychological Control, Autonomy Support, and Basic Psychological Needs*”, Ph. D. Dissertation, Ankara, 2019.

Guided by the spillover hypothesis and the self-determination theory, the main purpose of the present dissertation is to examine whether interparental relationship dimensions relate to adolescent’ adjustment by means of the parenting and basic psychological needs. Three studies were conducted in the scope of this dissertation.

In Study 1, the relations among interparental conflict (IPC), adolescents’ relational aggression, and loneliness by means of maternal psychological control were longitudinally investigated. Participants were 527 Turkish adolescents ($M_{age} = 14.36$ years, $SD = 0.33$) and 307 mothers ($M_{age} = 41.18$ years, $SD = 4.47$). Analyses through structural equation modeling indicated that IPC (as assessed by both the adolescents and mothers) related positively to maternal psychological control (as assessed again by both of them) which in turn predicted adolescent-reported relational aggression and loneliness, 8 months later.

In Study 2, the associations among interparental conflict to adolescent’s depressive feelings and life satisfaction by means of maternal autonomy support and adolescent need frustration were examined. Participants were 3,075 Turkish adolescents ($M_{age} = 17.11$ years, $SD = 0.36$) and 1,040 mothers ($M_{age} = 41.93$ years, $SD = 5.15$). Results from path analysis showed that interparental conflict related to less maternal autonomy support, and in turn to higher adolescent need frustration. High need frustration, in turn, predicted greater adolescent depressive feelings and lower life satisfaction, 6 months later.

In Study 3, the relations among weekly reports of mother’s interparental conflict, perceived partner responsiveness, and maternal autonomy-support by means of maternal psychological need satisfaction were investigated. During 6 consecutive weeks, 258

mothers ($M_{age} = 41.71$ years, $SD = 4.78$) and their 157 adolescents ($M_{age} = 14.92$ years, $SD = 1.72$) provided weekly reports of the study variables via an online survey. Analyses through multilevel modeling showed that mother's need satisfaction was predicted by lower levels of interparental conflict and greater levels of perceived partner responsiveness. Maternal need satisfaction, in turn, was positively associated with mother and adolescent reports of maternal autonomy-support. Further, these week-to-week associations were partly moderated by mother's perfectionism. Results and their implications, as well as the strengths and limitations of the studies, were discussed in the light of the literature.

Keywords

Interparental conflict, perceived partner responsiveness, maternal psychological control, maternal autonomy support, spillover hypothesis, self-determination theory, adolescent adjustment

ÖZET

KOÇAK, Aylin. “Eşler Arası İlişki ve Ergenin Uyumu: Psikolojik Kontrol, Özerklik Desteği ve Temel Psikolojik İhtiyaçların Aracı Rolü”, Doktora Tezi, Ankara, 2019.

Araştırmanın temel amacı, yayılma hipotezi ve kendini belirleme kuramı temelinde, eşler arası ilişki boyutlarının ana babalık ve temel psikolojik ihtiyaçlar aracılığıyla ergenin uyumuyla olan ilişkisini incelemektir. Bu bağlamda, üç ayrı çalışma yürütülmüştür.

Çalışma 1’de, eşler arası çatışma ile ergenin ilişkisel saldırganlığı ve yalnızlığı arasındaki ilişkide annenin psikolojik kontrolünün aracı rolü boylamsal olarak incelenmiştir. Çalışma 1’in örneklemi, 527 ergen ($Ort_{yaş} = 14.36, S = 0.33$) ve 307 anneden ($Ort_{yaş} = 41.18, S = 4.47$) oluşmuştur. Çalışma 1 için yapılan yapısal eşitlik modeli sonuçları, eşler arası çatışmanın annenin psikolojik kontrolüyle olumlu yönde ilişkili olduğunu; annenin psikolojik kontrolünün ise ergenin sekiz ay sonraki ilişkisel saldırganlık ve yalnızlığını olumlu yönde yordadığını göstermiştir.

Çalışma 2’de, eşler arası çatışma ile ergenin depresif duygu durumu ve yaşam doyumu arasındaki ilişkide annenin özerklik desteğinin ve ergenin temel ihtiyaçlarının engellenmesinin aracı rolü incelenmiştir. Çalışma 2’nin örneklemi, 3075 ergen ($Ort_{yaş} = 17.11, S = 0.36$) ve 1040 anneden ($Ort_{yaş} = 41.93, S = 5.15$) oluşmuştur. Çalışma 2 için yapılan yol analizi sonuçları, eşler arası çatışmanın annenin düşük düzeyde özerklik desteği sağlaması; annenin düşük düzeydeki özerklik desteğinin ise ergenin temel ihtiyaçlarının engellenmesiyle ilişkili olduğunu ortaya koymuştur. Buna ek olarak, temel ihtiyaçları engellenen ergenler, altı ay sonra, daha fazla depresif duygu durumu ve daha az yaşam doyumu bildiriminde bulunmuştur.

Çalışma 3’te, annelerden haftalık olarak bildirim alınan eşler arası çatışma ve algılanan eş duyarlılığı ile annenin özerklik desteği arasındaki ilişkide annenin temel ihtiyaç doyumunun aracı rolü incelenmiştir. Çalışma 3’ün örneklemi, altı hafta boyunca

bildirimde bulunan 258 anne ($Ort_{yas} = 41.71$, $S = 4.78$) ve 157 ergenden ($Ort_{yas} = 14.92$, $S = 1.72$) oluşmuştur. Çalışma 3 için yapılan çok düzeyli modelleme analizi sonuçları, düşük düzeydeki eşler arası çatışma ve yüksek düzeydeki algılanan eş duyarlılığının annelerin ihtiyaç doyumunu olumlu yönde yordadığını göstermiştir. Buna ek olarak, annenin ihtiyaç doyumunu hem anne hem de ergen bildirimine dayanan annenin özerklik desteğiyle olumlu yönde ilişkili bulunmuştur. Son olarak, bahsedilen ilişkilerde annenin mükemmeliyetçiliğinin kısmi düzenleyici rolü gözlenmiştir. Üç çalışmadan elde edilen bulgular, bu bulguların olası sonuçları, çalışmaların güçlü yanları ve sınırlılıkları güncel alanyazın çerçevesinde tartışılmıştır.

Anahtar Sözcükler

Eşler arası çatışma, algılanan eş duyarlılığı, annenin uyguladığı psikolojik kontrol, annenin uyguladığı özerklik desteği, yayılma hipotezi, kendini belirleme kuramı, ergenin uyumu

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INTRODUCTION

Previous research investigating the associations among interparental relations and child functioning revealed that while negative interparental relationship is associated with child maladjustment, positive interparental relationship is associated with child adjustment (McCoy, George, Cummings, & Davies, 2013). Specifically, negative, or not positive, interparental relationships are related to externalizing problems such as aggression (Li, Putallaz, & Su, 2011), conduct disorder, and delinquency (Stocker & Youngblade, 1999). Moreover, such relationships are also related to internalizing problems such as subjective stress (Cummings & Davies, 1994), anxiety, withdrawal (Stocker & Youngblade, 1999), loneliness (Kiecolt-Glaser et al., 1988), and depression (Davies & Cummings, 1994). Furthermore, poor interparental relationships have been also found to relate to academic problems (Grych & Fincham, 1990), problematic sibling and peer relationships (Stocker & Youngblade, 1999), and lower levels of self-regulation (Brody, Stoneman, & Flor, 1995) and life satisfaction (Dancy & Handal, 1984).

INTERPARENTAL RELATIONSHIP DIMENSIONS

In this dissertation, interparental conflict has been used as an indicator of poor interparental relationships. It has been conceptualized as a multidimensional stressor which occurs between parents and emanates from their incompatible goals, wishes, and expectations (Bradbury, Fincham, & Beach, 2000). As a multidimensional construct, interparental conflict includes, among other features, frequency (i.e., the degree of child's exposure to interparental conflict), intensity (i.e., the extent to which conflicts are characterized by calm versus hostile, aggressive discussions), lack of resolution (i.e., when conflicts remain unresolved), and content of conflict (i.e., child-related content) (Krishnakumar & Buehler, 2000). According to Grych and Fincham (1990), these dimensions of conflict are closely related to adolescents' maladjustment such as higher levels of aggression, loneliness, life dissatisfaction, and depression. Moreover, interparental conflict is also classified as overt versus covert and as constructive versus destructive depending on behavior types of parents (McCoy, Cummings, & Davies, 2009). While overt conflict refers to the direct and open hostile behaviors of parents such

as insulting and hitting, covert conflict refers to indirect hostile behaviors of parents such as triangulating and scapegoating (Buehler et al., 1998). Both conflict styles are related to children's maladjustment (Li et al., 2011). In addition, constructive conflict has been defined in terms of healthy conflict resolution, problem solving ability, and mutual support (McCoy et al., 2009). Destructive conflict, on the other hand, has been defined in terms of verbal, non-verbal, and physical aggression, and hostility (Coln, Jordan, & Mercer, 2013). Moreover, while constructive conflict may benefit children by teaching them problem solving skills and effective communication strategies, destructive conflict may make adolescent more vulnerable to adjustment problems (McCoy et al., 2009). In this dissertation, only overt and destructive interparental conflict has been examined, given that prior research has shown that this kind of conflict is associated with more aggravated problems.

Next to interparental conflict, partner responsiveness has been used as an indicator of positive interparental relationships. Perceived partner's responsiveness refers to one's sense that one's partner understands, validates, and cares for him or her (Reis & Gable, 2015). Even though one of the partners may be responsive to the other one, the other partner may not perceive these behaviors as such. Therefore, measuring the responsiveness perception of the partners is quite important to understand quality of partners' relationship and well-being (Reis, 2007). As studies show that perceived partner responsiveness has been found to relate not only to relationship intimacy (Laurenceau, Barrett, & Rovine, 2005) but also to physical health (Selcuk, Stanton, Slatcher, & Ong, 2017), psychological well-being (Selcuk, Gunaydin, Ong, & Almeida, 2016), and positive child outcomes (Millings, Walsh, Hepper, & O'Brien, 2013).

THE MEDIATING MECHANISMS IN THE LIGHT OF THE SPILLOVER HYPOTHESIS AND SELF-DETERMINATION THEORY

Although the direct relation between interparental relations and child adjustment has been well-documented, the processes that could perhaps explain this relation still deserves more attention (Cummings & Davies, 2002). One of the intervening mechanisms that seems to explain this relation is suggested by spillover hypothesis. According to the spillover hypothesis, both negative and positive interparental relationships residing to the spouses subsystem are transferred to the parent-child subsystem through parenting practices (Engfer, 1988) (see Figure 1). In support of this argument, research has shown that while responsive relationships relate to more effective parenting practices, conflictual interparental relationships relate to less effective ones (Coln et al., 2013; Millings et al., 2013). Moreover, the spillover hypothesis also proposes that such parenting styles may have a detrimental effect on children's adjustment (Erel & Burman, 1995; Grolnick & Ryan, 1989).

However, the spillover hypothesis does not provide adequate explanation about how and why such parenting practices mediate the link between interparental relationship and adolescent adjustment problems. In this regard, self-determination theory (Ryan & Deci, 2017) provides a useful explanation on which parenting practices and processes may be underlying the spillover process (see Figure 1). The SDT suggests that parental psychological control and autonomy support are key socialization mechanisms that undermine or promote offspring adjustment (Soenens, Vansteenkiste, & Van Petegem, 2015).

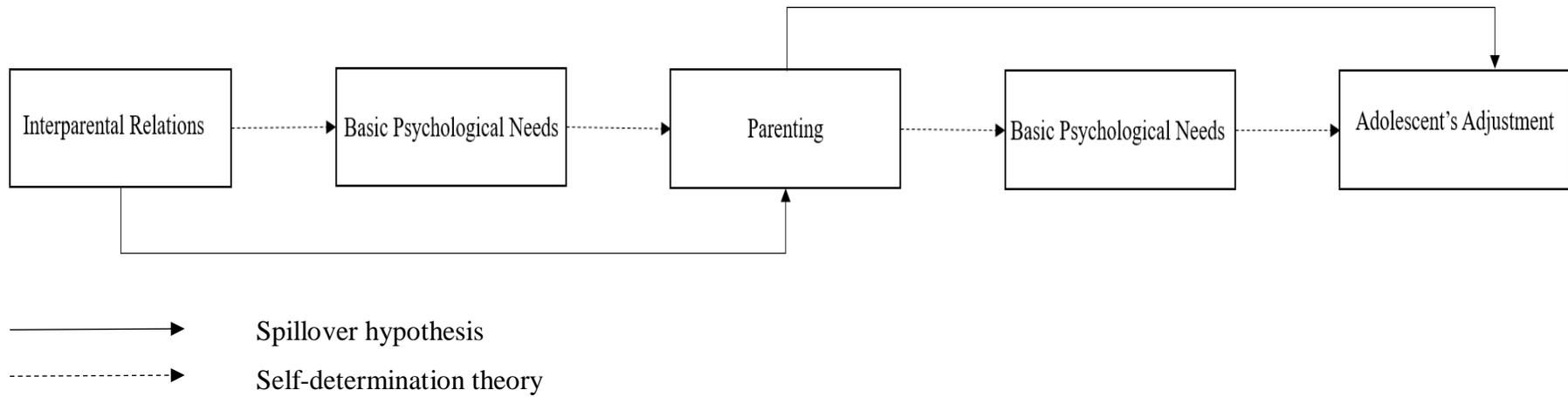


Figure 1. The Proposed Model of Three Studies.

More specifically, psychological control is defined as parenting practices that include any attempt that intrudes and violates the psychological and emotional private space of the adolescent and include shame or guilt induction by parents in order to control his or her behavior (Barber, 1996). Psychologically controlling parenting practices have been found to relate to both externalizing behaviors, such as aggression (Albrecht, Galambos, & Jansson, 2007) and internalizing problems, such as depressive symptoms and loneliness (Soenens, Vansteenkiste, Duriez, & Goossens, 2006). On the other hand, autonomy supportive parenting has been defined in terms of parents' perspective taking, encouragement, and supportive volitional activities (Grolnick, Deci, & Ryan, 1997). Autonomy supportive parenting practices have been found to relate to children's well-being and adjustment (Soenens et al., 2015) such as higher levels of life satisfaction (Suldo & Huebner, 2004) and lower levels of depressive feelings (Grolnick & Ryan, 1989). Although previous research suggests that psychologically controlling and autonomy supportive parenting are the opposite ends of the same continuum (Schaefer, 1965; Soenens, Vansteenkiste, & Sierens, 2009), there is still an ongoing debate over their linear or quasi-orthogonal relations (Silk, Morris, Kanaya, & Steinberg, 2003). Therefore, in this dissertation, it is important to test both of them to reveal their unique effects within the proposed relations.

Towards more precisely identifying processes that account for the mother- and adolescent-sequelae of spillover (see Figure 1), self-determination theory posits that diminished autonomy support and heightened psychological control impair healthy functioning of both mothers and adolescents by undermining their three basic psychological needs. According to self-determination theory (Ryan & Deci, 2017), human behaviors can be understood through three innate psychological needs: The need for (1) autonomy (which refers to people's desire to feel that they govern their own thoughts, actions, and behaviors), (2) competence (which refers to the tendency to feel effective when people undertake a certain task), and (3) relatedness (which refers to people's desire to feel connected with the others). While satisfaction of these needs relates to more positive outcomes, the frustration of them relates to relatively negative ones (Vansteenkiste & Ryan, 2013). Research has shown that the context determines whether

needs are satisfied versus frustrated and consequently whether optimal functioning will occur or not (Ryan & Deci, 2000).

As seen in Figure 2, in accordance with the purposes of this dissertation, in the first part of the proposed model, interparental conflict and perceived partner responsiveness can be understood as the interparental relationship dimensions through which mothers satisfy or not their three basic psychological needs. Therefore, conflictual or less responsive interparental relationships may have a detrimental effect on mothers' optimal functioning and may lead them to behave in a less autonomy supportive and more psychologically controlling manner towards their children (La Guardia & Patrick, 2008). Similarly, in the second part of the proposed model, psychologically controlling and autonomy supportive parenting serves as the parenting dimensions through which the adolescents satisfy or not their own basic psychological needs. Therefore, more controlling or less supportive parenting may relate to adolescents' optimal functioning and may eventually lead to more depression, aggression, loneliness, and life dissatisfaction (Soenens et al., 2015). In this regard, the main purpose of the present dissertation is to test a process model where interparental conflict and perceived partner responsiveness relate to adolescents' behavioral and emotional adjustment (i.e., loneliness, relational aggression, depressive feelings, and life satisfaction) by means, among others, of the mother's need satisfaction, maternal psychologically controlling and autonomy supportive parenting, and adolescent's need frustration (see Figure 2). Therefore, three studies were conducted in the scope of the current dissertation.

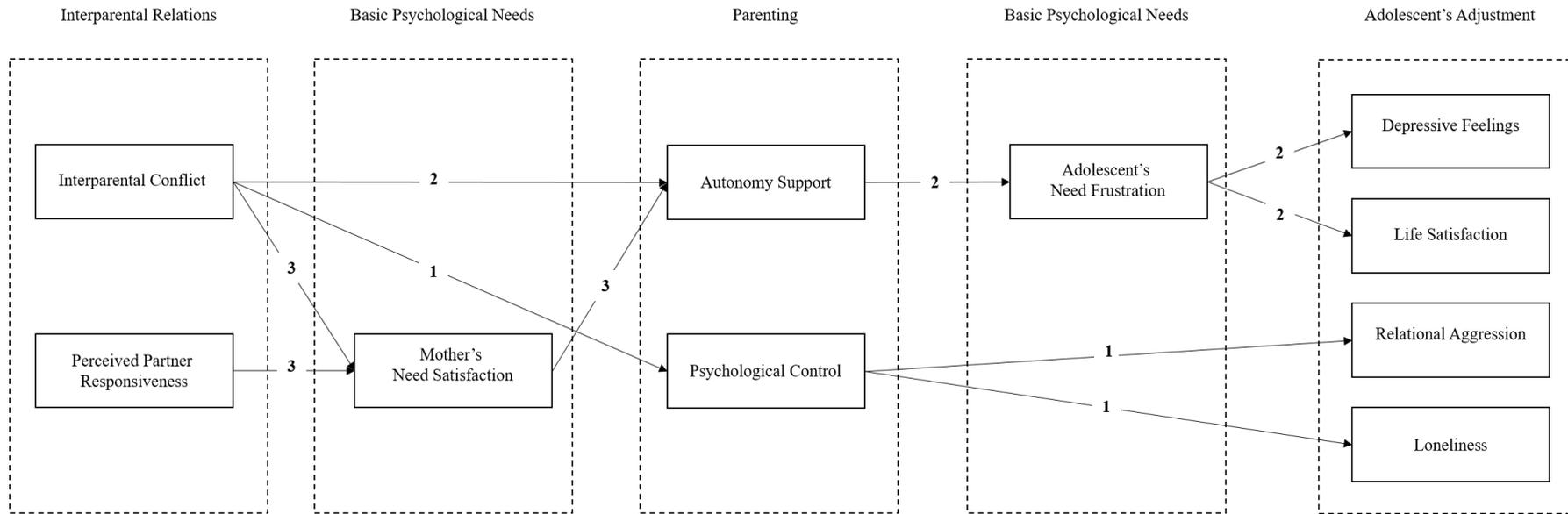


Figure 2. The Proposed Model Showing the Specific Variables and Paths among the Variables for Three Studies.

Note. “1” stands for Study 1, “2” stands for Study 2, and “3” stands for Study 3.

STUDY 1

In the first study, it was aimed to test through an integrated, multi-informant model to what extent adolescent-reported and mother-reported interparental conflict is linked with adolescent's relational aggression and perceived loneliness through adolescent-reported and mother-reported maternal psychological control. Study 1 builds on previous research by (1) relying not only on adolescents' reports but also on the reports of mothers (specifically for interparental conflict and maternal psychological control), (2) examining the hypothesized relations longitudinally (two points of time; 8 months apart), and (3) testing the relations among study variables with structural equation model.

STUDY 2

In the second study, it was examined whether maternal autonomy support and adolescent need frustration served as mediating mechanisms in the link between interparental conflict and adolescent adjustment (i.e., depressive feelings and life satisfaction). Study 2 builds on the first study by (1) examining another dimension of parenting behaviors (autonomy supportive parenting behaviors instead of psychologically controlling one), (2) considering further possible mediating mechanism from a different theoretical standpoint (adolescent need satisfaction as a possible mediating mechanism from self-determination theory perspective), (3) testing a different set of outcome variables to show detrimental effect of interparental conflict by means of less effective parenting (depressive feelings and life satisfaction), (4) relying on not only the reports of adolescents but also the reports of mothers (specifically the reports of mothers for interparental conflict and maternal autonomy support and the reports of adolescents for need frustration, depressive feelings, and life satisfaction), (5) examining the hypothesized relations longitudinally (two points of time; 6 months apart), and (6) implementing a different statistical analysis method (i.e., path analysis) to test the relations among study variables.

STUDY 3

In the third study, it was aimed to examine whether weekly interparental conflict and weekly perceived partner responsiveness relate to weekly maternal autonomy support by means of weekly need satisfaction. Study 3 builds on the previous two studies by (1) using a more dynamic six-week diary design, (2) focusing not only to negative aspect of interparental relation but also to positive aspect of it (i.e., interparental conflict and perceived partner responsiveness), (3) considering mother's own need satisfaction as a further possible intervening mechanism linking conflict and responsiveness with maternal autonomy support, (4) relying on the reports of both mothers and adolescents (specifically for maternal autonomy support), (5) investigating the moderating role of mother-related time-invariant characteristics (i.e., mothers' perfectionistic attitudes), and (6) implementing a different statistical analysis method (i.e., multilevel analysis) to test the dynamic relation among study variables.

In the next sections, each of the studies will be presented in detail.

CHAPTER 1

STUDY 1: INTERPARENTAL CONFLICT AND ADOLESCENTS' RELATIONAL AGGRESSION AND LONELINESS: THE MEDIATING ROLE OF MATERNAL PSYCHOLOGICAL CONTROL

1.1. INTRODUCTION

Frequent, intense, or poorly resolved interparental conflict can have negative implications on children's behavior and adjustment (Cummings & Davies, 2010; Grych & Fincham, 1990). Such problems may stem, among other reasons, from poor parenting because parents who are in conflict are more likely to become dysfunctional in their parenting role thereby endorsing harsh punishing practices (Krishnakumar & Buehler, 2000). In support of this view, a few studies have shown that the relation between interparental conflict and children's adjustment problems is mediated by psychological control (Coln et al., 2013; Krishnakumar, Buehler, & Barber, 2003; Li et al., 2011; Schoppe-Sullivan, Schermerhorn, & Cummings, 2007) - that is, parenting practices that intrude, manipulate, and eventually disrespect a child's psychological and emotional world (Barber, 1996; Soenens & Vansteenkiste, 2010). These findings are in line with the spillover hypothesis (Engfer, 1988) and imply that interparental conflict may evoke a destructive parenting practice (including, but not limited to, psychological control), which in turn may lead to adolescents' adjustment problems, such as relational aggression and loneliness.

Yet several issues remain underexplored. For instance, although some lab-conducted studies combined longitudinal designs with structured observations during marital problem-solving discussions to assess interparental conflict (Conger et al., 1992; Sturge-Apple, Davies, & Cummings, 2006) - and hence to assess the links among interparental conflict, parenting practices, and adolescents' adjustment - the majority of these studies were conducted in US or other Western countries. Also, the bulk of prior research used one-shot correlational design, and disregarded adolescents' perceptions of their parents'

conflicts; therefore, the reported relations might have been somewhat inflated as most of these studies relied either on adolescents' or parents' reports to assess interparental conflict or psychological control.

Therefore, it warrants further investigation whether the relation between interparental conflict and psychological control still holds across different informants (i.e., mothers and adolescents). Also it needs further testing whether psychological control predicts subsequent adjustment problems (namely, relational aggression and perceived loneliness) in an underrepresented population sample in psychological research such as Turkish mothers and adolescents (Nielsen, Haun, Kärtner, & Legare, 2017). Psychological control was selected because an ever growing body of literature has been showing that such parenting practices can have detrimental effects on adolescents' adjustment and well-being (Aunola, Viljaranta, & Tolvanen, 2016; Coln et al., 2013; Soenens & Vansteenkiste, 2010). Likewise, relational aggression and loneliness were opted because they both have been found to be key markers of adolescents' adjustment (Albrecht et al., 2007; Heinrich & Gullone, 2006; Kindap-Tepe & Sayıl, 2012; Sayıl, Kindap, & Kumru, in press). Providing evidence for such a sequence of relations by using two sources of information and in a non-Western cultural context will further underscore the interdependencies among family subsystems (e.g., the mother-father and mother-adolescent subsystems) in various cultural contexts.

Broadly speaking, interparental conflict refers to a stressor that occurs directly or indirectly between two parents and emanates from their incompatible goals, wishes, and expectations (Bradbury et al., 2000; Fincham & Beach, 1999; Grych & Fincham, 1990). Most scholars would agree that interparental conflict is multidimensional as it includes, among other features, frequency, intensity, resolution, and content of conflict (Cummings & Davies, 1994; Grych & Fincham, 1990; Krishnakumar & Buehler, 2000; Zimet & Jacob, 2001) and that it can have direct implications on adolescents' adjustment (Cummings & Davies, 1994; Grych & Fincham, 1990; Krishnakumar & Buehler, 2000). According to Grych and Fincham (1990), certain dimensions of conflict such as frequency of conflicts (i.e., the degree of child's exposure to interparental conflict), intensity of conflicts (i.e., the extent to which conflicts are characterized by calm versus

hostile, aggressive discussions), and lack of resolution (i.e., when conflicts remain unresolved) are more closely related to adolescents' adjustment problems.

Interparental conflict can also be overt or covert (Cummings & Davies, 1994; Davies & Cummings, 1994). Overt conflict comes to the notice of the child (Grych & Fincham, 1990) and involves direct hostile behaviors between parents such as hitting, saying bad things, criticizing, and insulting; covert conflict refers to indirect hostile behaviors such as triangulating and scapegoating the child (Buehler et al., 1997; Buehler et al., 1998). Both overt and covert interparental conflict are positively related to adolescents' internalizing (e.g., depression) and externalizing (e.g., antisocial behaviors) problems (Bradford et al., 2003).

Moreover, depending on the type of behaviors that parents use to resolve problems, interparental conflict has also been categorized as either constructive or destructive. Constructive conflict is characterized by parents' successful conflict resolution (Cummings & Davies, 2002), mutual support, verbal and physical affection, and effective problem-solving strategies and has been associated with adolescents' more positive emotional reactions (Coln et al., 2013; Goeke-Morey, Cummings, Harold, & Shelton, 2003; McCoy et al., 2009). In contrast, destructive conflict entails verbal, nonverbal, and physical aggression between two parents. Despite the presence of somewhat different operational definitions, a substantial body of research has illustrated that destructive interparental conflicts – considered also herein as frequent, intense, poorly resolved, overt, and destructive arguing between parents – may have deleterious impact on children's adjustment (e.g., Coln et al., 2013; Davies & Cummings, 1994). To illustrate, destructive interparental conflict has been related to adolescents' externalizing problems (Buehler & Gerard, 2002) such as overt and relational aggression (Li et al., 2011) and internalizing problems such as loneliness (Kiecolt-Glaser et al., 1988) and withdrawal (Buehler, Lange, & Franck, 2007).

Several scholars (e.g., Coln et al., 2013; Krishnakumar et al., 2003) have pointed out the need to get a better insight of how interparental conflict is associated with children's

adjustment problems by examining the likely mechanisms that may explain this association. In particular, Davies, Cummings, and Winter (2004) argued that in enmeshed relationships, conflict and coercive control may be transferred from one family subsystem (e.g., interparental subsystem) to another one (e.g., parent-child subsystem), with apparent implications on children's functioning. In a similar vein, Emery and O'Leary (1982) proposed that interparental conflict depletes parents' emotional resources which in turn renders them less efficient in responding to their children's emotional needs something which will have obvious negative effects on children's adjustment.

Although some support was found for these mediating mechanisms (e.g., Tolan & Mitchell, 1990), a widely accepted mechanism that seems to explain quite well the relation between interparental conflict and children's maladjustment via poor parenting behavior (Cummings & Davies, 2002) is the spillover hypothesis (Engfer, 1988). According to the spillover hypothesis, conflicting parents become less sensitive towards the needs of their children and more eager to transfer the negative experiences from their marital relationship into their relationship with their child (Engfer, 1988; Erel & Burman, 1995; Zimet & Jacob, 2001). Indeed, research has shown that parents who are in conflict tend to have poorer relationships with their children (Erel & Burman, 1995) and to be less responsive towards their children's needs than parents who do not experience similar conflicts (Krishnakumar & Buehler, 2000; Sturge-Apple et al., 2006).

In support of the view that interparental conflict may result in endorsing poor parenting strategies, research has pointed out that parents who are in conflict provide less supervision and monitoring (Bradford et al., 2003; Krishnakumar et al., 2003). Such parents are more likely to create an uncertain and unstructured environment for their child by resorting to inconsistent discipline and lax parental supervision (Krishnakumar & Buehler, 2000; Peterson & Zill, 1986). Also, a few studies have shown that interparental conflict is related not only to decreased monitoring but also to increased use of psychological control (Krishnakumar et al., 2003; Schoppe-Sullivan et al., 2007). The psychologically controlling parenting which is a particularly devastating type of poor parenting behavior deserves further investigation (Coln et al., 2013). Notably however, it has received only limited attention from scholars dealing with interparental conflict.

Psychological control has been defined as parenting practices that intrude and violate the psychological and emotional private space of the adolescent through manipulative tactics such as love withdrawal and shame and guilt induction (Barber, 1996). Apparently, psychologically controlling parenting reflects a poor parenting behavior that damages the parent-child relationship (Soenens, Vansteenkiste, Luyten, Duriez, & Goossens, 2005). Therefore, it should come as no surprise that psychological control has been associated with adolescents' adjustment problems such as relational aggression (Hart, Nelson, Robinson, Olsen, & McNeilly-Choque, 1998) and loneliness (Soenens et al., 2006).

According to social learning theory (Bandura, 1977), children learn to use such manipulative tactics by their parents and transfer them to their own relationships to emotionally hurt their peers – for instance by rejecting them or excluding them from their peer group (Crick et al., 1999; Hart et al., 1998). Accordingly, children who experience such intruding behaviors from their parents are expected to hold low self-esteem (Soenens, Vansteenkiste, et al., 2005) and self-confidence (Conger, Conger, & Scaramella, 1997) and therefore to be more vulnerable to internalizing problems such as loneliness (Soenens et al., 2006). Moreover, prior studies have shown that relational aggression relates to interparental conflict and parental psychological control (Albrecht et al., 2007; Loukas, Paulos, & Robinson, 2005) and disrupts the interpersonal relations of Turkish adolescents (Kindap-Tepe & Sayıl, 2012). Likewise, loneliness has been considered as a key marker of adolescents' quality of social life, and hence of their adjustment both in Western and non-Western cultures (Heinrich & Gullone, 2006; Sayıl et al., in press). Therefore, these two constructs have been considered as indicators of adolescents' adjustment problem.

Although the links between interparental conflict and psychological control and between psychological control and children's adjustment problems have been widely studied, most of prior research has examined these associations in a rather fragmented way. In fact, only a few studies have tested within a single integrated model the role of psychological control as a mediating mechanism lying between interparental conflict and adolescents' externalizing and internalizing problems such as relational aggression and loneliness. Among these few studies, some relied on relatively small samples (e.g., Mann &

MacKenzie, 1996), single informants (e.g., Buehler & Gerard, 2002; Gonzales, Pitts, Hill, & Roosa, 2000), or cross-sectional designs (e.g., Coln et al., 2013) without accounting for pre-existing levels of child adjustment (e.g., Harold & Conger, 1997). Furthermore, most of the studies have been conducted in US or Western Europe cultural contexts.

Since there is an ongoing debate about whether the link between psychological control and adolescents' functioning is similar across cultures, findings from diverse cultural contexts might be valuable. According to the culture-specific perspective, parental control may be perceived as more normative in non-Western and Asian cultures (Chao & Tseng, 2002; Chao, 1994) and as such may be unrelated to adolescents' adjustment. Yet, studies endorsing the universality perspective have shown that the relation between *perceived* psychological control and adolescents' adjustment is similar across cultures (e.g., Pomerantz & Grolnick, 2009; Vazsonyi & Belliston, 2006), although it may manifest in different domains of adolescents' behavior and functioning (Chen, Soenens, Vansteenkiste, Van Petegem, & Beyers, 2016). This may be because once parenting behaviors are perceived as controlling they do undermine the innate and universal needs of autonomy, competence, and relatedness (see Soenens & Vansteenkiste, 2010; Soenens et al., 2015).

Hence, it is worth investigating whether the relation between interparental conflict and adolescents' adjustment by means of psychologically controlling parenting still holds in countries like Turkey where a typical urban family is characterized by a synthesis of traditional (high intergenerational hierarchy) and modern (more individual autonomy with relatedness) features (see Ataca, Kağıtçıbaşı, & Diri, 2005; Kağıtçıbaşı, 2007 for a detailed analysis). Such knowledge would provide useful information regarding how family and parenting processes are associated with adolescents' adjustment problems in samples embedded in cultures with a relatively more collectivistic background (Kağıtçıbaşı, 1970; 2007). Instead of both parents, mothers were used for three reasons. First, because prior research has indicated that the mother-adolescent relationship tends to be closer (Richardson, Galambos, Schulenberg, & Petersen, 1984); second because adolescents tend to perceive more psychological control from their mothers than their fathers (Barber, 1996; Barber & Harmon, 2002); third because this may be particularly

true in the specific cultural (i.e., Turkish) context where the current study took place (Kındap, 2011; Sayıl & Kındap, 2010; Sayıl et al., in press).

There are some studies that examine the direct relation between interparental conflict and outcomes such as adolescents' aggression (Peksaygılı & Güre, 2008), social introversion (Bahçıvan-Saydam & Gençöz, 2005), and between psychological control and outcomes such as adolescents' loneliness (Sayıl & Kındap, 2010) and aggression (Kındap, Sayıl, & Kumru, 2008). However, there is a dearth of knowledge about the processes linking interparental conflict and adolescents' outcomes by means of psychologically controlling parenting (see Güre, 2012). Therefore, showing that the relation among interparental conflict, maternal psychological control, and adolescents' relational aggression and loneliness applies in a non-Western cultural context would provide some evidence about the generalizability of the devastating effects that interparental conflict might have on adolescents' adjustment through maternal psychological control.

In this prospective study, it was aimed to test through an integrated, multi-informant model to what extent adolescent- and mother-reported interparental conflict is linked with relational aggression and perceived loneliness through maternal psychological control. This study built on prior research in four ways. First, both mothers' and adolescents' reports were used to test more rigorously the relation between interparental conflict and maternal psychological control. Second, the studied relations were assessed in two points of time (and Time 1 outcomes were further controlled). Third, the hypotheses were tested with Turkish adolescents and their mothers, a population sample that is relatively underrepresented in the literature. Finally, the role of gender as a moderator of the hypothesized relations was examined. Based on the spillover hypothesis and the relevant research, it was hypothesized that interparental conflict (as admitted by mothers and perceived by adolescents) would positively relate to maternal psychological control (Hypothesis 1). Further, in line with prior research, it was hypothesized that maternal psychological control would in turn positively predict adolescents' relational aggression and loneliness, eight months later (Hypothesis 2). It was anticipated that this relation would remain statistically significant even after controlling for baseline (i.e., Time 1) relational aggression and loneliness. In essence, it was hypothesized that interparental

conflict would be indirectly related to adolescents' relational aggression and loneliness by means of maternal psychological control (Hypothesis 3). Regarding gender, no particular hypothesis was made as previous research has shown inconsistent findings.

1.2. METHOD

1.2.1. Participants

Data were drawn from a large longitudinal project, funded by the Scientific and Technological Research Council of Turkey. The data were collected from four high schools which were randomly selected from a list of schools, located in districts of average socio-economic status in Ankara, Turkey, at two different time periods: Time 1 (T1) took place in September of 2008 and Time 2 (T2) occurred eight months later, in May 2009. The sample consisted of 555 adolescents (45.8% females) in T1 and 307 mothers (58.3% of the adolescents' sample; $M_{age} = 41.18$ years, $SD = 4.47$; age range: 31 to 57 years). The adolescents were attending the 9th grade and their ages ranged between 13 and 15 years ($M_{age} = 14.36$ years, $SD = 0.33$). In the Turkish education system, 9th-grade students are admitted to high school after they succeed in entrance exams. The 9th-grade is the first year of high school and the transition period from middle school to high school for Turkish adolescents. Therefore, this is a rather stressful period not only for the adolescents but also for the whole family and hence suitable to examine the patterns of relations among interparental conflict that may arise due to the stress imposed on the whole family, maternal psychological control, and adolescents' adjustment. In T2, 28 participants were dropped out so the final sample consisted of 527 adolescents (46.1% females).

Regarding mothers, 292 (95.1%) of them were married and living together with their husband and 14 (4.5%) being divorced or separated and living either with their ex-husbands or with new partners. There was also one mother who was divorced and whose child was living with his/her father. This child and his mother were excluded from the analyses. About half of the mothers were employed (49%), whereas the median family monthly income at the time of data collection was approximately \$1200 ($M = \1200, SD

= \$560), an amount that corresponds to an average income according to the standards of living in Turkey at that time.

1.2.2. Procedure

Prior to data collection, an approval was obtained from the ethical committee of the Hacettepe University. Likewise, permission was granted from the Turkish Ministry of Education and from the principals of the participating schools. Upon their permission, the researcher visited the schools and explained to the adolescents the purpose of the study, the procedures to be followed, and assured them about the confidentiality of their responses. Students received an informed consent in a sealed envelope to hand to their mothers. The envelopes were collected by teachers or school counselors within the next two weeks. Only the parents and the adolescents whose parents signed the informed consent participated in the study. The adolescents filled out the battery of questionnaires in T1 in class groups during a regular class hour that lasted 40 minutes. In a similar fashion, they filled out a short version of the battery of questionnaires in T2, during a class session. The mothers answered the questionnaire in T1 and returned their responses to a sealed envelope via their adolescent.

1.2.3. Measures

1.2.3.1. Interparental Conflict

A scale developed by Porter and O'Leary (1980) and adapted into Turkish by Peksaygılı and Güre (2008), was used to assess mother-reported interparental conflict. The scale asks parents about the frequency with which their child is exposed to interparental conflict – for instance, how often the child is present when parents argue, and how often the child is exposed to physical and verbal aggression between the parents. The scale consists of 10 items (e.g. “How often has this child heard you argue about the wife’s role in the family?”) and responses are given on four-point Likert type scale (1 for “*Never*” and 4 for “*Always*”). Higher scores indicate high exposure of adolescent in interparental conflict. The Cronbach’s alpha of the scale for the current study was .84.

Adolescents' perception of their parents' conflict was assessed by three subscales of Children's Perception of Interparental Conflict Scale (CPIC; Grych, Seid, & Fincham, 1992), namely frequency of arguments (6 items; e.g., "I often see my parents arguing."); intensity of arguments (7 items; e.g., "My parents get really mad when they argue."); and lack of resolution (6 items; e.g., "When my parents have an argument they usually do not work it out."). The scale was adapted into Turkish by Öz (1999) and its internal consistency in the present study was .90.

1.2.3.2. Psychological Control

A scale, developed by Barber et al. (2007) and adapted into Turkish language and culture by Sayıl and Kındap (2010), was used to assess adolescents' perception of the extent to which their parents engage in psychologically controlling behaviors. Adolescents rated on a four-point scale (1 = *Not like her*; 4 = *Like her*) their mothers on seven items, such as "My mother is always trying to change how I feel or think about things" with higher scores indicating higher psychological control. A similar version was used for the mother-reported psychological control (e.g., "I am always trying to change how my child feels or thinks about things"). The Cronbach's alpha of the seven-item adolescent-reported and mother-reported maternal psychological control was .81 and .66, respectively.

1.2.3.3. Loneliness.

The 16 items from the UCLA Loneliness Scale (Russel, Peplau, & Cutrona, 1980) that was adapted and validated into Turkish by Demir (1989) were used to measure adolescents' feelings of loneliness due to poor social relationships (e.g. "I feel left out"). Adolescents answered on a four-point scale ranging from 1 (*I never feel this way*) to 4 (*I often feel this way*) with higher scores indicating higher level of loneliness. The Cronbach's alpha of the 16-item scale was .87 for T1 and .91 for T2.

1.2.3.4. Relational Aggression.

Six items from the relational aggression subscale (Crick, 1996), adapted into Turkish by Kındap (2011), were used to assess self-reported relational aggression as an index of adolescents' aggressiveness in their social relationships. A sample item is, "Sometimes I

can tell lies about some children so that nobody likes them” and adolescents answered on a seven-point Likert type scale (1 for “*Never*” and 7 for “*Always*”). Cronbach’s alpha was .74 in T1 and .86 in T2.

1.2.4. Data Analyses

First, the means and standard deviations were computed and associations among variables were examined using Pearson’s correlation coefficients. As a preliminary analysis, Little’s MCAR test was conducted to examine whether the retained data differed from those with missing data in one or (a combination of) more than one variables. To test the main hypotheses, structural equation modeling (SEM) with latent variables was used and analysis was performed using the lavaan (Rosseel, 2012) software package for R.

The model included four latent constructs (i.e., interparental conflict, psychological control, relational aggression, and loneliness). Mother-reported interparental conflict (as defined by five two-item parcels) and adolescent-reported interparental conflict (as defined by the three indicators reflecting the aggregated scores of frequency, intensity and lack of resolution) served as indicators of the interparental conflict higher-order latent construct. Likewise, mother-reported and adolescent-reported psychological control were used as indicators of the psychological control latent construct. The latent variable of loneliness was defined by four parcels, each of which consisted of four randomly selected loneliness items. Also, the latent variable of relational aggression was defined by three parcels, each of which consisted of two randomly selected items from the respective scale. Parcels were used instead of the full set of items to keep the ratio of observations to estimated parameters to a reasonable level; in that way, it enabled to get more stable model estimates (Little, Cunningham, Shahar, & Widaman, 2002). Further, because of the relatively high percentage of missing cases among mothers (as some mothers did not return their questionnaires), a supplementary model with adolescents only as informants was also tested.

Data screening of the indicator variables showed multivariate non-normality. Therefore, in all the tested models, the asymptotic covariance matrix between all indicators was used

as input and the Satorra-Bentler scaled chi-square ($S-B\chi^2$; Satorra & Bentler, 1994) was inspected. To test the goodness of fit of the models, in addition to the Satorra-Bentler scaled chi-square, the Comparative Fit Index (CFI), the Standardized Root Mean Square Residual (SRMR), and the Root Mean Squared Error of Approximation (RMSEA) along with its 90% confidence interval (90%-CI) were used. Goodness of fit of the model was determined by combined cutoff values close to .95 for CFI, .05 for SRMR and RMSEA, and lower than .09 for the upper bound of the 90%-CI for RMSEA (Browne & Cudeck, 1993; Hu & Bentler, 1999).

Lastly, regression analyses were used to examine the moderating role of gender between interparental conflict and psychological control and between psychological control and two outcome variables, namely relational aggression and loneliness. The direction and significance of the paths between males and females were tested with a test of simple slopes.

1.3. RESULTS

Table 1 shows the descriptive statistics of the measured variables of the study. Preliminary analyses showed statistically marginally significant differences between males and females in the linear combination of the studied variables, Wilk's $\Lambda = .941$, $F(8, 256) = 1.99$, $p = .059$, multivariate, $\eta^2 = .06$. Given that gender was considered an important covariate in the literature, and because follow-up ANOVAs indicated that males differed from females in relational aggression (T2) ($F[1, 263] = 9.89$, $p < .01$, $\eta^2 = .04$) and in loneliness (T2) ($F[1, 263] = 7.75$, $p < .01$, $\eta^2 = .03$), gender has been controlled for in the tested structural models. As can be noticed in Table 1, mother-reported interparental conflict was correlated positively with mother-reported psychological control, adolescent-reported psychological control, and interparental conflict. In addition, mother-reported psychological control was correlated positively with adolescent-reported interparental conflict, psychological control, and T1 and T2 relational aggression. Moreover, adolescent-reported interparental conflict was positively correlated with adolescent-reported psychological control, both of which were positively correlated to T1 and T2 relational aggression and loneliness.

Table 1. Descriptive Statistics and Bivariate Correlations of the Measured Variables of Study 1

Variables		<i>N</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9
<i>Time 1</i>													
1. Gender		527	-	-	-								
2. Interparental conflict	(M)	298	2.16	(0.71)	.00	-							
3. Interparental conflict	(A)	487	1.47	(0.40)	-.02	.41**	-						
4. Psychological control	(M)	302	1.72	(0.37)	.05	.30**	.13*						
5. Psychological control	(A)	493	2.00	(0.60)	.06	.20**	.31**	.30**	-				
6. Loneliness	(A)	510	1.70	(0.50)	.08	.07	.20**	-.01	.22**	-	-		
7. Relational aggression	(A)	507	2.33	(0.94)	.08	-.05	.21**	.11**	.21**	.25**	-		
<i>Time 2</i>													
8. Loneliness	(A)	527	1.73	(0.58)	.15**	.04	.27**	.04	.16**	.61**	.22**	-	
9. Relational aggression	(A)	526	2.26	(1.12)	.13**	.00	.20**	.11*	.21**	.17**	.46**	.29**	-

Note. * $p < .05$. ** $p < .01$. M = Mother-reported; A = Adolescent-reported

Preliminary analyses also showed that the group of participants with complete data differed somehow from those with missing data in one or more variables (Little's MCAR test: $\chi^2[129] = 171.28, p < .01$). This finding suggests that the two groups may differ in one or (a combination of) more than one variables. Yet, given that the bulk of missing data concerned mothers' reports (43.5% missing cases for interparental conflict and 42.7% for psychological control), a second missing case analysis showed that the group with complete information for interparental conflict and psychological control from both the adolescents and the mothers did not differ from the group with complete information from adolescents' only (Little's MCAR test: $\chi^2[15] = 13.78, p = .54$). Also, the results would not have differed, when the 14 divorced or separated mothers were dropped. Taken together, these findings imply that the retained sample did not substantially differ from the original full sample, at least as concerns the main constructs under investigation.

1.3.1. Main Analyses

In the measurement phase, the fit of the model that included gender and the four latent variables (i.e., interparental conflict, psychological control, relational aggression, and loneliness as defined through their respective indicators) was examined. The measurement model, which in essence tests how the latent variables are measured by their indicators, yielded an acceptable fit ($S-B\chi^2 [369; N = 257] = 533.89, p < .001, CFI = .925, SRMR = .070, RMSEA = .042 [90\%-CI: .034 - .049]$) and the same was true for the structural model in which gender was allowed to correlate with each of the higher order variables. In particular, the structural model, shown in Figure 3, yielded the following fit indices: $S-B\chi^2 (396; N = 257) = 574.59, p < .001, CFI = .921, SRMR = .070, RMSEA = .042 (90\%-CI: .035 - .049)$.

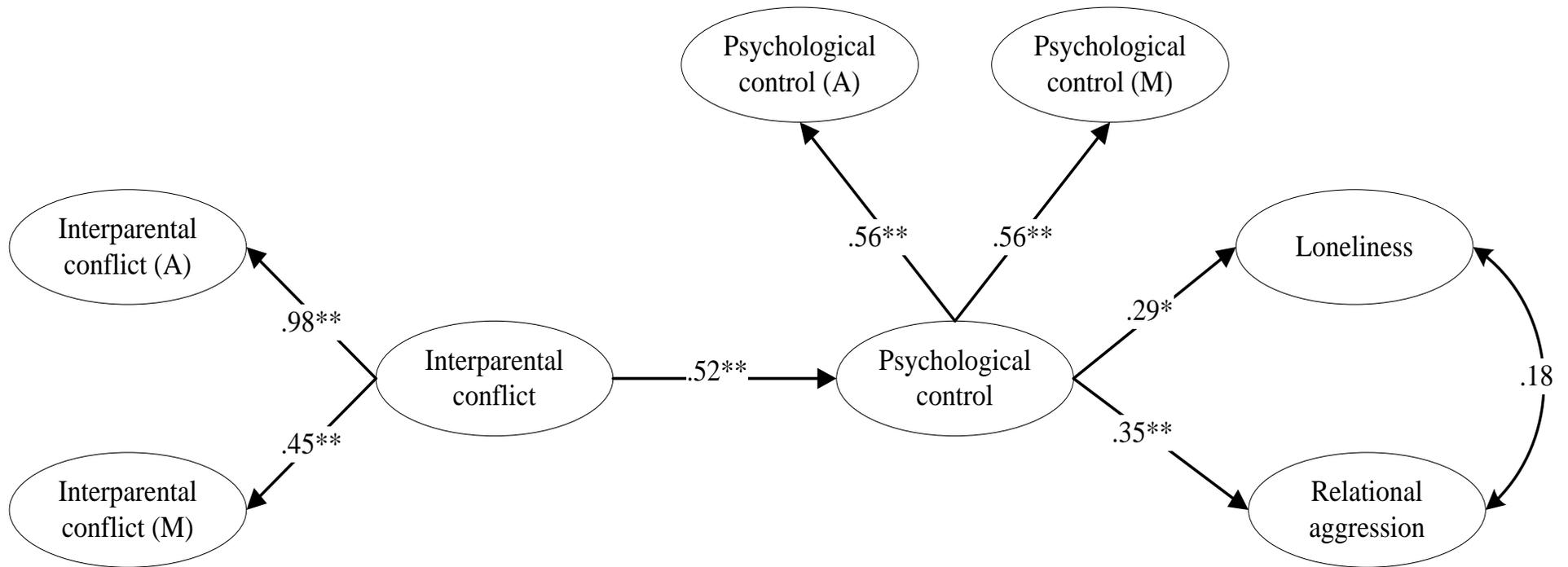


Figure 3. Study 1 – The Structural Model Showing the Mediating Role of Psychological Control in the Relation between Interparental Conflict and Adolescents' Adjustment Problems.

Note. Gender and parcel items are not shown for sake of clarity. All paths are standardized. M = Mother-reported; A = Adolescent-reported

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

In support of the hypothesis, interparental conflict was positively related to psychological control which in turn positively predicted T2 relational aggression and T2 loneliness. A test of indirect effects showed that T1 interparental conflict indirectly predicted T2 relational aggression ($\beta = .18, p < .05$) and loneliness ($\beta = .15, p < .05$) by means of T1 psychological control. These findings suggest that psychological control was acting as a mediating mechanism of the relation of interparental conflict to relational aggression and loneliness. Regarding gender differences (not shown in Figure 3), males were found to report more relational aggression ($\beta = .16, p < .05$) and loneliness ($\beta = .17, p < .05$) than females.

Notably, when in the same model, T1 relational aggression and loneliness (model fit: S-B χ^2 [617; $N = 251$] = 855.18, $p < .001$, CFI = .918, SRMR = .084, RMSEA = .039 [90%-CI: .033 - .045]) were controlled, T1 psychological control was marginally significant, and a positive predictor of T2 relational aggression ($\beta = .21, p = .06$), though it was no more significant predictor of T2 loneliness ($\beta = .09, p = .30$). In sum, the models in which interparental conflict was indirectly related to the adolescent outcomes provided a good representation of the data and they suggest, in line with the spillover hypothesis, that psychological control may be the mediating mechanism that explain the links between interparental conflict and adolescents' maladjustment.

Supplementary analyses of a model with adolescents being used as the only informants showed an even better fit: S-B χ^2 (128; $N = 461$) = 241.24, $p < .001$, CFI = .960, SRMR = .056, RMSEA = .044 (90%-CI: .036 - .052) and replicated the same patterns of associations found in the model that contained information from both the mothers and the adolescents. Specifically, adolescent-reported interparental conflict was positively related to maternal psychological control (as perceived by the adolescent) ($\beta = .40, p < .01$) which in turn predicted T2 relational aggression ($\beta = .28, p < .01$) and loneliness ($\beta = .21, p < .01$). Similar to the adolescent-mother model (Figure 3), the test of indirect effects showed that adolescent-reported interparental conflict was indirectly related to T2 relational aggression ($\beta = .11, p < .01$) and loneliness ($\beta = .08, p < .01$) by means of adolescent-reported maternal psychological control; also, males were found to report more relational aggression ($\beta = .18, p < .01$) and loneliness ($\beta = .14, p < .01$) than females. Notably again,

when controlling for T1 relational aggression and loneliness (model fit: $S-B\chi^2 [265; N = 438] = 485.26, p < .001, CFI = .944, SRMR = .088, RMSEA = .044 [90\%-CI: .038 - .049]$), T1 psychological control positively predicted T2 relational aggression ($\beta = .18, p < .01$), but not T2 loneliness ($\beta = .06, p = .25$). Finally, the test of indirect effects showed that even after controlling for T1 relational aggression, T1 adolescent-reported interparental conflict indirectly predicted T2 relational aggression ($\beta = .07, p < .05$) by means of T1 adolescent-reported maternal psychological control.

Finally, regression analyses were used to test whether gender would moderate the relations between interparental conflict and psychological control and between psychological control and either T2 relational aggression or T2 loneliness. The only statistically significant interaction concerned the relation between adolescent-reported psychological control and T2 loneliness ($B = 0.17, SE = 0.09, \beta = .13, p < .05$). A test of simple slopes indicated that the relation between adolescent-reported maternal psychological control and loneliness was positive and statistically significant among males ($B = 0.22, SE = 0.06, p < .01; 95\%-CI: 0.11 - 0.34$) but not among females ($B = 0.05, SE = 0.06, p > .05; 95\%-CI: -0.07 - 0.18$). This finding, discussed in the next section, suggests that males as compared to females tended to report more loneliness when they perceived their mothers to be psychologically controlling.

1.4. DISCUSSION

In the present study, it was examined to what extent psychological control could stand as an explanatory mechanism mediating the relation between interparental conflict and adolescents' externalized (i.e., relational aggression) and internalized problems (i.e., loneliness). It is done so by relying on both mothers' and adolescents' reports, by using a prospective design, and by recruiting a sample from a non-Western cultural context. The main findings emerged from the present study are discussed around three main issues: The association between interparental conflict and psychological control; the link between psychological control and adolescents' relational aggression and loneliness; and the indirect relation of interparental conflict to these two adjustment problems.

In line with the hypothesis and previous research findings (e.g., Fauber, Forehand, Thomas, & Wierson, 1990; Krishnakumar et al., 2003), it was found that interparental conflict relates to maternal psychological control. These findings provide support to the spillover hypothesis, according to which conflicting parents are more likely to transfer the negative experiences from their marital relationship into their relationship with their child (Erel & Burman, 1995). In contrast to the spillover hypothesis, the compensation hypothesis suggests that parents who are in conflict may neutralize their negative feelings and dissatisfaction in their marital relationship by being highly involved in the parent-child relationship (Engfer, 1988). Although the compensation hypothesis, could be a viable alternative, the results and the bulk of the previous research seem to favor mainly the spillover hypothesis. As the research alludes, such a spillover can take the form of psychologically controlling parenting strategies.

Although there are a few more studies which have similarly indicated that interparental conflict relates to parental psychological control, this study has found that this relation holds irrespective of whether the informant is the adolescent or the mother. This noteworthy finding implies that the previously reported associations between interparental conflict and psychological control may not necessarily be an artifact that could be attributed to a confounding variable, such as maternal mood. For instance, one might hypothesize that mothers' negative mood may prompt her more easily recalling events during which she experienced conflict with her spouse and also events during which she exerted psychological control towards her child. Although, such an explanation cannot be totally rejected, it should be noted that mother-reported and adolescent-reported interparental conflict and psychological control were all positively intercorrelated. These positive correlations suggest that there may be indeed some kind of transfer of the negative experiences from one subsystem (interparental relationships) to the other one (mother-child relationships). Contextualizing these findings in the Turkish culture, where interdependent and close family relationships are highly valued (Kağıtçıbaşı & Sunar, 1992), Turkish mothers seem, on average, more likely to use some manipulative tactics such as love withdrawal, and shame and guilt induction towards their child as the problems arising from interparental conflict spillover to relationship with their child.

Future research needs to examine possible intervening mechanisms that may explain the link between interparental conflict and maternal psychological control. Among them one could mention enmeshed relationships (Davies et al., 2004), cross-generational coalitions, and scapegoating (Grych & Fincham, 1990) that deserve closer examination. In addition to these mechanisms, it is proposed that the frustration of the psychological needs for competence (which refers to peoples' tendency to feel effective when people undertake a certain task), relatedness (which refers to people's desire to feel connected with the others), and autonomy (which refers to people's preference to feel that they govern their own thoughts, actions, and behaviors), which according to Self-Determination Theory (Deci & Ryan, 2000) play a key role in human functioning, may explain why interparental conflict relates to maternal psychological control. Based on recent research evidence (e.g., Vanhee, Lemmens, Stas, Loeys, & Verhofstadt, 2016), it is presumed that parents who are in conflict frustrate their need for relatedness, and perhaps their need for competence and autonomy (as spouses feel more incompetent and less agentic after interparental conflict – see La Guardia & Patrick, 2008; Patrick, Knee, Canevello, & Lonsbary, 2007) a situation that leads them to endorse psychologically controlling behaviors towards their children. Therefore, future research can examine more in depth the relation between interparental conflict and psychological control by investigating the role of need frustration as a possible mediating mechanism.

It should be reiterated however that interparental conflict can be constructive rather than destructive (Coln et al., 2013). As most of the research on interparental conflict mainly focuses on destructive conflict, future studies may need to consider the constructive forms as well. In that way, it may help them better predict when interparental conflict will relate to parental psychological control and in turn to adolescents' adjustment problems. In addition, future research should not confine only to interparental conflict but consider also other aspects of interparental relationships such as partner responsiveness and marital satisfaction. Assuming also that interparental conflict is dynamic in nature and hence may vary from day to day and from week to week, future studies need to examine how it covaries with psychological control across time and personal characteristics of the parents (e.g., parents' perfectionism) or the child may affect such a relation (see Aunola et al.,

2016). Such a research will help to better understand when interparental conflict more strongly relates to parental psychological control.

In line with the hypothesis, maternal psychological control, as reported by both the mothers and the adolescents, positively predicted adolescents' relational aggression and loneliness eight months later. This finding should come as no surprise as several studies conducted in Western context have pointed out the debilitating role of parental psychological control on adolescents' functioning and adjustment problems (Buehler, Benson, & Gerard, 2006; Conger et al., 1997). A similar relation has been also reported by a few studies that investigated this issue in the Turkish cultural context (Kındap et al., 2008; Sayıl & Kındap, 2010). In this context, research has shown that mothers tend to withdraw their love, intervene in adolescents' behaviors, and interdict their children emotional and behavioral expression as a discipline strategy (Kağıtçıbaşı, 1970). This manipulative and intrusive parenting behaviors are more likely to impair adolescents' self-esteem (Soenens, Vansteenkiste, et al., 2005) and emotion regulation capability (Cummings & Davies, 2010), something which may lead them experience more loneliness and behave more aggressively in their social lives (Kındap et al., 2008). The present contribution replicates thus prior findings and provides further support to the notion that maternal psychological control may have detrimental effects on adolescents' adjustment across different cultural contexts.

In support of the family systems perspective (Cox & Paley, 1997), the present research shows that interparental conflict and maternal psychological control were both linked to adolescents' relational aggression and loneliness. Both mother- and adolescent-reported interparental conflict were indirectly related to adolescents' relational aggression and loneliness through mother- and adolescent-reported psychological control. These findings are consistent with findings in cultures being characterized as Western (e.g., Krishnakumar & Buehler, 2000), non-Western Asian such as China (e.g., Li et al., 2011), and non-Western non-Asian such as Turkey (Sayıl et al., in press). Extending previous research on adolescents' externalizing (Hart et al., 1998) and internalizing (Soenens et al., 2006) problem behaviors, the results suggest that adolescents' relational aggression

and loneliness are associated with interparental conflict and that maternal psychological control may mediate these associations.

When initial levels of relational aggression and loneliness were also considered in a model that included both mothers and adolescents, maternal psychological control was only related, though marginally, to relational aggression, while this association remained statistically significant in the model with adolescents being used as informants. This finding implies that how adolescents perceive maternal psychological control may reliably predict increases in relational aggression, and underscores the importance of adolescents' appraisals and interpretation of parental behavior.

It should be noted, however, that psychological control and adolescents' externalizing and internalizing behaviors have not been associated in a consistent way in previous studies that statistically controlled for baseline levels of these behaviors. For instance, Galambos, Barker, and Almeida (2003) have found psychological control to predict changes in externalizing but not in internalizing problems (see also Lansford, Laird, Pettit, Bates, & Dodge, 2014; Schoppe-Sullivan et al., 2007), while McCoy et al. (2013) have shown maternal psychological control to predict changes in school adjustment but not in social maladjustment. Likewise, some other studies employing cross-lagged analyses failed to show that maternal psychological control consistently predicts changes in relational aggression (Nelson, Coyne, Swanson, Hart, & Olsen, 2014; but see Shuster, Li, & Shi, 2012) and psychosocial adjustment (Otterpohl & Wild, 2015).

The lack of consistent links between maternal psychological control and adolescents' adjustment may be due to statistical reasons (e.g., relatively low statistical power) or to the presence of some mediators that may remain undetected (see Steeger & Gondoli, 2013). Future research should address this issue by recruiting larger sample sizes and by considering likely mechanisms - for instance, adolescents' psychological need satisfaction and frustration - that may mediate the association between maternal psychological control and adolescents' adjustment problems (Costa, Soenens,

Gugliandolo, Cuzzocrea, & Larcan, 2015; Soenens & Vansteenkiste, 2010; Vansteenkiste & Ryan, 2013).

Some differences were found as a function of children's gender, but which however should be interpreted with caution as they may be based on chance. In particular, the results indicated that males scored higher in relational aggression and loneliness than females. Even though these findings are somewhat surprising because previous studies showed that both males and females are vulnerable to negative effects of interparental conflict (Grych & Fincham, 1990) and psychological control (Sayil et al., in press) and these effects may differ in terms of gender (Cummings & Davies, 1994; Kindap et al., 2008; Sayil et al., in press), they are consistent with the male vulnerability (Davies & Lindsay, 2001) and opposite-sex pathway hypothesis (Snyder, 1998). According to these hypotheses, males are more vulnerable to mothers' conflict behaviors and therefore are more likely to exhibit adjustment problems such as relational aggression and loneliness than females. Also, the analyses revealed that the relation between maternal psychological control and loneliness was stronger among males than females. Is it because boys exhibit more loneliness not only as a result of interparental conflict but also because they experience more psychologically controlling behaviors from their mothers such as increased criticism, ignorance, and intrusive behaviors as Cummings and Davies (2010) suggest? As a concrete answer cannot be provided and because the gender differences may have emerged due to chance, more research on this issue are needed.

The present research has several limitations that should be acknowledged. First, given its correlational design, the causal relations among interparental conflict, psychological control, and adolescents' adjustment problems cannot be claimed. Second, fathers (as would-be raters of interparental conflict and psychological control) or teachers (as would-be raters of adolescents' adjustment problems) were not considered; this fact prevented from combining information from more sources, and hence from testing in a more robust way the hypothesized associations. Third, the possibilities that psychological control may take the form of externally or internally controlling (see Soenens & Vansteenkiste, 2010) and that each of them may carry different implications on adolescents' adjustment problems were overlooked (De Meyer, Soenens, Aelterman, De Bourdeaudhuij, &

Haerens, 2016). Moreover, only relational aggression and loneliness were considered as markers of adolescents' externalizing and internalizing problems, though it is obvious that such problems may take various forms (e.g., depressive symptoms or physical aggression). Also, there was a relatively large proportion of missing data from mothers' reports. Finally, only a specific age-cohort (i.e., ninth graders) participated in the study. Therefore, the findings may not be readily generalizable to other age groups. In sum, future research will benefit from multi-informant, large-sample models that will rely in diverse population samples representing early and middle adolescence, and in which different forms of psychological control and interparental conflict will be considered.

CHAPTER 2

STUDY 2: EXPLAINING THE LINK BETWEEN INTERPARENTAL CONFLICT AND ADOLESCENT'S ADJUSTMENT: SPILLOVER HYPOTHESIS AND SELF- DETERMINATION THEORY

2.1. INTRODUCTION

Children exposed to frequent conflict between their parents are at greater risk for developing emotional problems, including depressive symptoms and life dissatisfaction (Grych & Fincham, 2001). According to spillover hypothesis (Engfer, 1988), parenting difficulties account for part of the risk associated with exposure to interparental conflict. Therefore, in the first part of the proposed model, parents who are in conflict with each other may transfer their negativity from their interparental subsystem to parent-child subsystem (Erel & Burman, 1995; Krishnakumar & Buehler, 2000). Consistent with this hypothesis, research has shown that interparental conflict predicts lower levels of caregiver responsiveness, emotional availability, and autonomy support towards their children (Krishnakumar & Buehler, 2000; Schoppe-Sullivan et al., 2007).

In the second part of the model, the spillover hypothesis proposes that parenting difficulties pose a direct risk for children's psychological functioning. Supporting this hypothesis, diminished levels of autonomy support and responsiveness have been linked with lower levels of well-being in the form of emotional problems and lower life satisfaction (Grolnick & Ryan, 1989; Vansteenkiste, Zhou, Lens, & Soenens, 2005). However, the spillover hypothesis does not provide adequate guidance on how and why these parenting difficulties serve as mechanisms that mediate the link between interparental conflict and adolescent emotional problems. Guided by self-determination theory (Ryan & Deci, 2017), this gap was addressed by examining whether the mediational role of maternal autonomy support in the link between interparental conflict

and adolescent depressive symptoms and lower life satisfaction is further accounted by teen frustration of basic needs.

Self-determination theory (Ryan & Deci, 2017) may provide a useful heuristic for more precisely identifying the specific parenting practices and processes that may be underlying the spillover process. At the level of delineating parenting practices, it proposes that parental autonomy support is a key socialization mechanism that promotes offspring adjustment. Autonomy supportive parenting is characterized by parents' providing choices towards their children, taking children's perspective, encouraging them to solve the problems on their own, presenting rationale of the rules, and supporting their volitional activities (Grolnick, Price, Beiswenger, & Sauck, 2007). Enacting this set of child-rearing skills is challenging even in supportive environments, as it requires considerable high levels of sensitivity, flexibility, and perspective taking abilities. Therefore, parental negative affect and preoccupation with adult problems stemming from interparental conflicts may be particularly likely to undermine parental use of autonomy supportive child-rearing strategies.

Towards more precisely identifying processes that account for the adolescent sequelae of spillover, self-determination theory posits that diminished autonomy support increases offspring psychological difficulties by undermining three basic psychological needs: (1) autonomy, defined by a sense of volitional functioning; (2) competence, characterized by a sense of effectiveness; and (3) relatedness, comprised of a sense of connectedness and belongingness (Ryan & Deci, 2017; Soenens et al., 2015). Moreover, in accord with the fundamental nature of these needs, research has repeatedly shown that adolescent perceptions of lower autonomy, competence, and relatedness predict greater emotional problems and diminished life satisfaction (Chen et al., 2015). Thus, in building on the foundation of self-determination theory, it is specifically hypothesized that the role of maternal autonomy support as an intervening mechanism in associations among interparental conflict and adolescent depressive symptoms and life satisfaction is further explained by appraisals of diminished sense of autonomy, competence, and relatedness need satisfaction.

It was important to test the hypotheses with a sample of adolescents based on several developmental considerations. First, adolescents have better understanding of their parents' interrelationships than their younger counterparts (Cummings, 1987; Grych, Fincham, Jouriles, & McDonald, 2000) and the quality of adult, intimate relationships becomes increasingly salient during this period (Gerard, Krishnakumar, & Buehler, 2006; Grych et al., 2000). Moreover, normative efforts to expand autonomy during this developmental period have important implications for how adolescents balance the interdependent constellation of autonomy, competence, and related needs that lay the foundation for psychological adjustment (Zimmer-Gembeck & Collins, 2008). Given that depressive feelings and life satisfaction are substantially more pronounced during this period compared to childhood (Deković, 1999), it is important to examine the mediating role of maternal autonomy support and need frustration in relation between interparental conflict and adjustment with an adolescent sample.

Further, SDT maintains that the needs are innate and universal (Ryan & Deci, 2017) and that autonomy supportive parenting dynamics may apply across different cultures (Soenens et al., 2015). Because of the fact that most of the studies predominantly used Western samples (Grolnick & Ryan, 1989), more empirical research with non-Western participants is needed to provide further support to this proposition. To address this gap, a Turkish sample of adolescents and parents were recruited. Given that Turkish families are characterized by greater emotional and psychological interdependence (Kagitcibasi, 2002), it is significant to test the generalizability of the self-determination theory predictions on spillover hypotheses.

In summary, a process model in which interparental conflict predicts lower adolescent adjustment (as indexed through depressive feelings and life satisfaction) through its association with diminished maternal autonomy support and, in turn, adolescent need frustration was examined. To the best of knowledge, this study is the first to use self-determination theory as a guide in identifying mediating mechanisms of spillover. As a way of limiting common source bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003), multiple informants (i.e., adolescents, mothers) and measurement occasions (i.e., two) were used. Specifically, maternal reports of interparental conflict and autonomy support

and adolescent reports of need frustration were collected at Time 1 (T1). In addition, the collection of adolescent reports of depressive symptoms and life satisfaction at Time 1 and, six months later, at Time 2 (T2) allowed to specify autoregressive paths within a path analytic model in which interparental conflict, autonomy support, and need frustration predicted changes in adolescent adjustment.

Based on the spillover hypothesis and self-determination theory, it was hypothesized that T1 interparental conflict would negatively relate to T1 maternal autonomy support which would in turn negatively predict T1 adolescent need frustration. Moreover, T1 adolescent need frustration would predict positively T2 adolescent depressive symptoms and negatively life satisfaction. More importantly, it was expected that this relation would still hold even after controlling for the effect of T1 depressive feelings and life satisfaction. Finally, given the mixed evidence that adolescent gender may act either as a predictor or as a moderator of the hypothesized relations (Adie, Duda, & Ntoumanis, 2008; Davies & Lindsay, 2004), gender was included while testing the hypotheses.

2.2. METHOD

2.2.1. Participants

The sample was drawn from a longitudinal project funded by the Scientific and Technological Research Council of Turkey (TUBITAK). Data were collected from twenty-six high schools located in Ankara city center, Turkey, at two different time periods: T1 took place from September to November of 2016 and T2 occurred six months later, from March to May of 2017. The sample consisted of 3,591 adolescents (66.8% females; $M_{age} = 16.10$ years, $SD = 0.35$; age range: 14 to 19 years; all of them were attending 11th grade) and 1,040 mothers ($M_{age} = 41.93$, $SD = 5.15$; age range: 30 to 55 years) in T1. There was some attrition in T2, so the final sample consisted of 3,075 adolescents (69.9% females; age ranged between 15 and 20; $M_{age} = 17.11$ years, $SD = 0.36$). All of the mothers were married for an average of 20.40 years ($SD = 4.28$) and were living with their partners at the time of data collection. Moreover, among the mothers, 36.6% did not graduate from high school, 31.6% of them obtained a high school diploma, and 31.8% of them earned a university degree. Lastly, the median family monthly income

was approximately \$830, which was considered as moderate income at the time of data collection.

2.2.2. Procedure

Prior to conducting the study, an ethical approval from the ethical committee of the Hacettepe University and permission from the Turkish Ministry of Education and the school principals of the participating schools were obtained. Following approval, the researcher visited the schools to explain the students the purpose and procedures of the study and to assure them about the confidentiality of their responses. Only adolescents whose mothers provided written informed consents could participate in the study. The adolescents completed the questionnaires during a 40-minute session at school both at T1 and T2. Moreover, the mothers who consented to participate in the study answered the questionnaire in only T1 and they sent back their responses in a sealed envelope via their adolescents.

2.2.3. Measures

2.2.3.1. Mother Reports of Measures

2.2.3.1.1. Interparental Conflict

O'Leary-Porter Scale (Porter & O'Leary, 1980) was used to assess mother reports of interparental conflict. This 10-item scale (e.g. "How often has this child heard you argue about the wife's role in the family?") assesses the parents' perceptions about the frequency with which interparental conflict occurs in front of the child. The responses were given on a four-point Likert type scale (1 for "Never" and 4 for "Always") and higher scores indicated mother's high perception about the exposure of the child to the interparental conflict. The Cronbach's alpha for the scale was .71 in T1.

2.2.3.1.2. Maternal Autonomy Support

The autonomy support subscale of Children's Perceptions of Parents Scale (Soenens, Vansteenkiste, Smits, Lowet, & Goossens, 2007) was used to assess the mother reports of autonomy support towards their adolescent. Mothers responded to the eight items on

the questionnaire (e.g., “I let my child decide on some things on his/her own”) using a five-point Likert type scale (1 for “Totally disagree” and 5 for “Totally agree”). The Cronbach’s alpha for the scale was .74 in T1.

2.2.3.2. Adolescent Reports of Measures

2.2.3.2.1. Psychological Need Frustration

At Time 1, adolescents completed the Basic Psychological Need Frustration scale to assess frustration of the three basic needs (Chen et al., 2015). The scale consists of three subscales indexing frustration of need for: (1) autonomy (4 items; e.g., “I feel forced to do many things I wouldn’t choose to do”; $\alpha = .80$); (2) competence (4 items; e.g., “I feel insecure about my abilities”; $\alpha = .77$); and (3) relatedness (e.g., “I feel the relationships I have are just superficial”; $\alpha = .73$). Each item contained response alternatives along a five-point Likert type scale (1 for “Totally disagree” and 5 for “Totally agree”). Consistent with past research (e.g., Ryan & Deci, 2001), a single composite score of need frustration from the three scales was created ($\alpha = .87$).

2.2.3.2.2. Depressive Feelings

The abbreviated version of the Center for Epidemiologic Studies-Depression Scale (CES-D Scale; Radloff, 1977) was used to assess depressive symptoms of adolescents. Adolescents used a five-point Likert type scale (1 for “Totally disagree” and 5 for “Totally agree”) in completing the ten items on the scale (e.g., “I was bothered by things that usually don’t bother me”). Higher scores indicated higher depressive symptoms of the adolescents. The Cronbach’s alpha of the scale was .84 in both T1 and T2.

2.2.3.2.3. Life Satisfaction

Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985) was used to assess life satisfaction of adolescents. Response alternatives for the five-item scale (e.g., “The conditions of my life are excellent”) ranged from 1 (“Totally disagree”) to 5 (“Totally agree”). Higher scores indicated higher life satisfaction. The Cronbach’s alpha of the scale was .79 in T1 and .80 in T2.

2.2.4. Data Analyses

The main hypotheses were tested via path analysis with six manifest variables (i.e., adolescent's gender, interparental conflict, maternal autonomy support, need frustration, depressive feelings, and life satisfaction). The lavaan software package (Rosseel, 2012) for R was used to perform the analysis. An autoregressive model was tested by also considering the direct paths from interparental conflict to need frustration, depressive feelings, and life satisfaction and from maternal autonomy support to depressive feelings and life satisfaction. The goodness of fit of the models was determined in terms of the cutoff values close to .95 for CFI and .05 for SRMR and RMSEA (Browne & Cudeck, 1993; Hu & Bentler, 1999). Lastly, for gender differences, it was examined whether the links between these five manifest variables were invariant across gender. The difference between model fits were again tested with lavaan software package for R.

2.3. RESULTS

Table 2 shows the descriptive statistics and the correlations of the measured variables of the study. As shown in Table 2, T1 mother reports of interparental conflict related negatively to T1 mother reports of autonomy support and T1 and T2 adolescent reports of life satisfaction and positively to T1 adolescent reports of need frustration and T1 and T2 depressive feelings. Moreover, T1 autonomy support related negatively to T1 need frustration and T1 and T2 depressive feelings and positively to T1 and T2 life satisfaction. In addition, T1 need frustration related positively to T1 and T2 depressive feelings and negatively to T1 and T2 life satisfaction. Furthermore, T1 depressive feelings and T1 life satisfaction related negatively to each other and the same was true for the relation between T2 outcome variables. Lastly, T1 outcomes (depressive feelings and life satisfaction) related positively to their T2 counterparts.

Table 2. Descriptive Statistics and Correlations between the Study Variables of Study 2

Variables	<i>N</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
Mother- reported variables										
1. Adolescent's gender	1040	0.67	.47	-						
2. Interparental conflict	1016	1.79	.38	.03	-					
3. Autonomy support	1027	4.28	.57	-.07*	-.28**	-				
Adolescent- reported variables										
4. Need frustration	3517	2.72	.74	-.003	.12**	-.18**	-			
5. Depressive feelings (T1)	3562	2.15	.65	.09**	.14**	-.14**	.60**	-		
6. Life satisfaction (T1)	3574	3.19	.80	-.02	-.24**	.19**	-.41**	-.55**	-	
7. Depressive feelings (T2)	3028	2.32	.66	.09*	.12**	-.09*	.47**	.59**	-.40**	-
8. Life satisfaction (T2)	3035	3.11	.82	-.03	-.13**	.10**	-.35**	-.42**	.60**	-.52**

Note. * $p < .05$. ** $p < .01$. T1 = Time 1; T2 = Time 2. Gender was coded as 0 for males, 1 for females.

Preliminary analyses indicated a statistically significant gender difference in the linear combination of the measured variables, Wilk's $\Lambda = .957$, $F(7, 678) = 4.37$, $p < .001$, multivariate, $\eta^2 = .04$. Follow-up ANOVAs showed that females differed from males in terms of mother reports of autonomy support ($F[1, 684] = 7.61$, $p = .006$, $\eta^2 = .01$) and depressive feelings ($F[1, 684] = 6.35$, $p = .012$, $\eta^2 = .01$ for T1 and $F[1, 684] = 5.70$, $p = .017$, $\eta^2 = .01$ for T2). More specifically, mothers with daughters ($M = 4.22$; $SD = 0.60$) reported that they provided less autonomy support than mothers with sons ($M = 4.35$; $SD = 0.52$), while adolescent females ($M = 2.14$; $SD = 0.64$ for T1 and $M = 2.34$; $SD = 0.66$ for T2) reported more depressive feelings than their male counterparts ($M = 2.01$; $SD = 0.60$ for T1 and $M = 2.21$; $SD = 0.64$ for T2). Therefore, gender was controlled in the models.

2.3.1. Main Analyses

An autoregressive model with direct paths from interparental conflict to need frustration, depressive feelings, and life satisfaction and from autonomy support to depressive feelings and life satisfaction was tested (see Figure 4). The model yielded a good fit ($S-B\chi^2 [8; N = 686] = 63.937$, $p < .001$, CFI = .964, SRMR = .067, RMSEA = .101 [90%-CI: .079–.125]). Specifically, T1 mother reports of interparental conflict negatively predicted T1 autonomy support ($B = -.36$, $SE = .07$, $z = -5.25$, $\beta = -.24$, $p < .001$) which in turn negatively predicted T1 adolescent reports of need frustration ($B = -.14$, $SE = .04$, $z = -3.76$, $\beta = -.11$, $p < .001$). Most importantly, when the effects of T1 outcomes were controlled, the paths from T1 adolescent reports of need frustration to T2 depressive feelings ($B = .19$, $SE = .04$, $z = 5.13$, $\beta = .21$, $p < .001$) and to T2 life satisfaction ($B = -.10$, $SE = .04$, $z = -2.43$, $\beta = -.09$, $p = .015$) remained statistically significant. This finding suggests that even after controlling for baseline levels of depressive feelings and life satisfaction, adolescent need frustration still predicts the increment in their depressive feelings and decrement in their life satisfaction. As for gender differences, it was found that mothers with daughters reported that they provided less autonomy support than mothers with sons ($B = -.12$, $SE = .04$, $z = -2.61$, $\beta = -.09$, $p = .009$), while adolescent males reported more need frustration than their female counterparts ($B = -.17$, $SE = .05$, $z = -3.56$, $\beta = -.11$, $p < .001$).

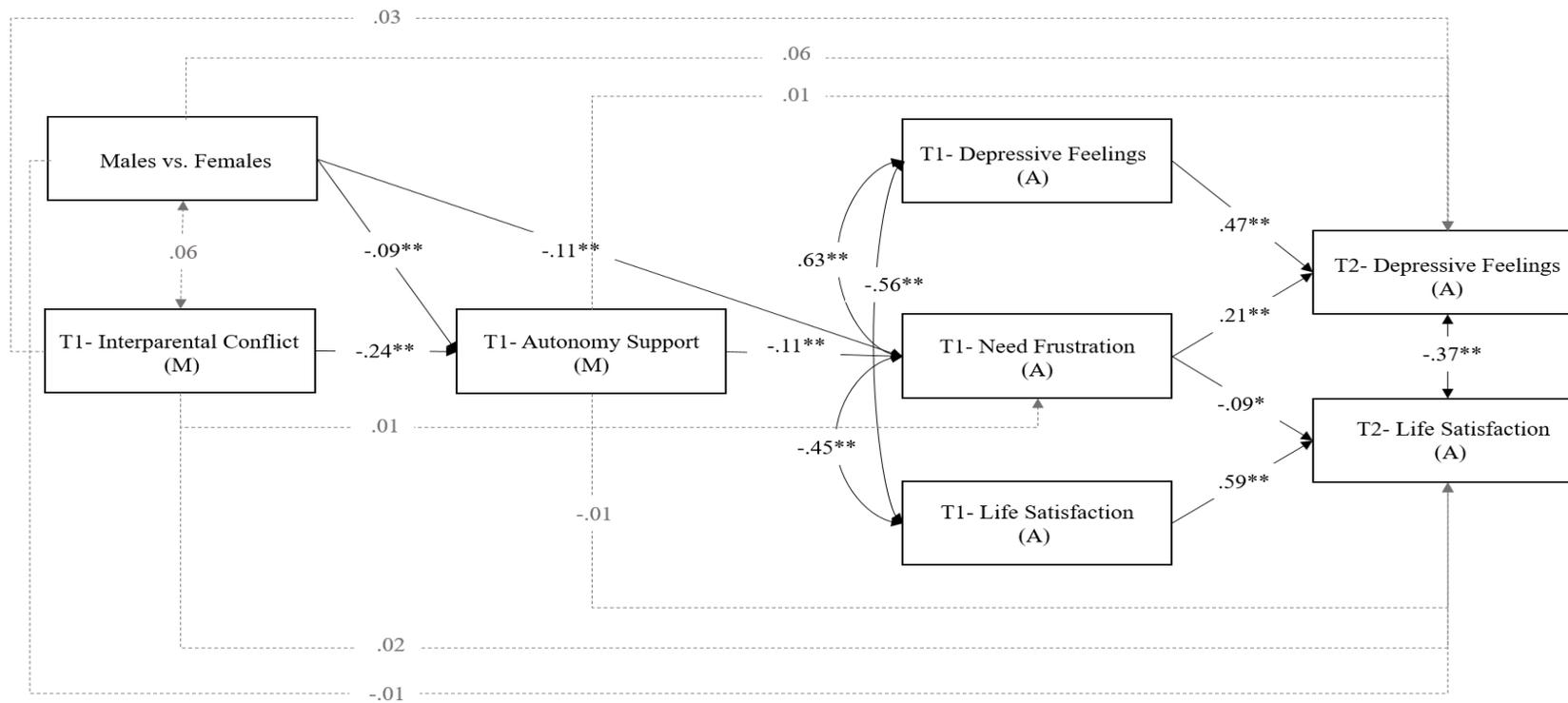


Figure 4. Study 2 – Autoregressive Path Model Testing the Relationships among Adolescent’s Gender, Interparental Conflict, Maternal Autonomy Support, Need Frustration, Depressive Feelings, and Life Satisfaction.

Note. * $p < .05$. ** $p < .01$. M = Mother reports; A = Adolescent reports; T1 = Time 1; T2 = Time 2. Gender was coded as 0 for males, 1 for females. Dotted grey lines represent nonsignificant paths.

The model consists of two interlocking mediational chains consisting of: (1) maternal autonomy support as a mediator of the link between interparental conflict and adolescent need frustration; and (2) adolescent need frustration as a mediator of associations among maternal autonomy support and adolescent depressive feelings and life satisfaction. Consistent with the first hypothesized mediational pathway, a test of indirect effect showed that T1 interparental conflict was indirectly associated with need frustration by means of autonomy support ($B = .05$, $SE = .02$, $z = 2.95$, $\beta = .03$, $p = .003$). Additionally, in accordance with the second hypothesized mediational pathway, T1 autonomy support indirectly predicted T2 depressive feelings ($B = -.03$, $SE = .01$, $z = -2.98$, $\beta = -.02$, $p = .003$) and life satisfaction ($B = .01$, $SE = .01$, $z = 2.00$, $\beta = .01$, $p = .045$) by means of T1 need frustration. These results suggest that T1 autonomy support and need frustration played significant mediating role in the relation of T1 interparental conflict to T2 depressive feelings and T2 life satisfaction. Lastly, gender invariance was tested in the hypothesized paths. In this regard, two models were tested: One model across male and female groups simultaneously without imposing any equality constraints (baseline model) and one model imposing equality constraints of the regression paths across gender (constrained model). The results showed that the difference between baseline and constrained models was not significant ($\Delta\chi^2 [11] = 11.23$, $p = .424$) which means all of the hypothesized paths did not vary as a function of gender.

As a supplementary analysis, the unique mediating role of each of three needs (i.e., autonomy, competence, and relatedness) was examined in a single omnibus model. The model with autoregressive paths yielded a good fit ($S-B\chi^2 [8; N = 684] = 63.976$, $p < .001$, $CFI = .974$, $SRMR = .059$, $RMSEA = .101$ [90%-CI: .079–.125]). More specifically, the relation between T1 interparental conflict and T1 autonomy support ($B = -.36$, $SE = .07$, $z = -5.25$, $\beta = -.24$, $p < .001$) was significant. Moreover, the relation of T1 autonomy support to frustration of T1 need for autonomy ($B = -.14$, $SE = .05$, $z = -2.89$, $\beta = -.09$, $p = .004$), competence ($B = -.16$, $SE = .05$, $z = -3.19$, $\beta = -.10$, $p = .001$), and relatedness ($B = -.11$, $SE = .05$, $z = -2.08$, $\beta = -.07$, $p = .038$) were all statistically significant. Lastly, it was found that even after controlling for T1 depressive feelings and life satisfaction, the relation of T1 autonomy ($B = .08$, $SE = .03$, $z = 2.91$, $\beta = .12$, $p = .004$) and relatedness ($B = .06$, $SE = .03$, $z = 2.03$, $\beta = .08$, $p = .042$) but not competence ($B = .04$, $SE = .03$, $z =$

1.26, $\beta = .06$, $p = .208$) frustration predicted T2 depressive feelings. Further, in that model none of the three needs predicted life satisfaction.

2.4. DISCUSSION

In the present study, the roles of maternal autonomy support and adolescent need frustration as successive intervening mechanisms in the link between interparental conflict and adolescent adjustment were examined. The goal was to further advance spillover formulations of the mediational role of parenting in associations between interparental conflict and offspring psychological adjustment by using self-determination theory to identify central parenting (i.e., autonomy support) and child (i.e., need frustration) processes derived from this theory. Consistent with self-determination theory, the findings of the present study indicated that mother reports of lower autonomy support mediated the link between interparental conflict and adolescent reports of greater need frustration. In reflecting the latter part of the model, results further indicated that adolescent need frustration mediated the link between diminished maternal autonomy support and adolescent reports of depressive feelings and life dissatisfaction. These findings are discussed in more detail below.

Regarding the first part of the process model, it was found that interparental conflict was associated with maternal reports of less autonomy support towards their adolescent child. In drawing from previous theory and research on spillover (Erel & Burman, 1995; Schoppe-Sullivan et al., 2007), the results may indicate that preoccupation with problems stemming from interparental conflicts undermine mothers' use of autonomy supportive parenting behaviors. Given the salience of effective parenting for the healthy functioning of the adolescents (e.g., Costa, Gugliandolo, Barberis, Cuzzocrea, & Liga, 2019), the findings may underscore the critical role of interparental conflict on interfering mothers' use of effective parental strategies.

Setting aside the spillover hypothesis, attachment theory also suggests that interparental conflict may diminish mothers' ability to show an effective and responsive parenting behaviors by underlying worries about the security of their relationship with their spouse

(Davies, Sturge-Apple, Woitach, & Cummings, 2009). Therefore, mothers tend to become less autonomy supportive because of their anxious and insecure feelings about their conflictual relationships with their partners. Moreover, as suggested by the intergenerational transmission hypothesis, parents may also pass down their frustration for psychological needs to their children through their parenting styles (van der Kaap-Deeder et al., 2015). For instance, mothers' frustration of their needs for autonomy (perceiving less personal choice and initiative while interacting with their children), competence (perceiving themselves inadequate in their role of parents), and relatedness (feeling fears about abandonment and separation) (La Guardia & Patrick, 2008; Patrick et al., 2007) may undermine their optimal parenting style and eventually may lead them to be less autonomy supportive (Costa et al., 2019). Consistent with this hypothesis, interparental conflict can be seen as a need thwarting interparental environment and a possible antecedent which may lead to need frustration of mothers. Although the possible mechanisms underlying the relation between conflict and parenting have been tried to be untangled, the studies examining the possible intervening and also moderating mechanisms are still limited.

In the next part of the proposed mediational chain, it was found that diminished autonomy support related to adolescent need frustration. In support of the self-determination theory (Ryan & Deci, 2017) and the previous research (e.g., van der Kaap-Deeder et al., 2015), the results show that adolescents felt more need frustration in the presence of diminished autonomy support by their mothers. On the surface, diminished autonomy support by mothers may be hypothesized to be particularly likely to frustrate adolescent needs for autonomy relative to competence and relatedness. However, the supplementary analyses indicated that maternal autonomy support was associated with greater need frustration for autonomy, competence, and relatedness. Specifically, when mothers reported less autonomy support towards their adolescents, the adolescents failed to experience a sense of volition (i.e., autonomy), effectiveness (i.e., competence), and connectedness (i.e., relatedness) with their environment (DeBoard-Lucas, Fosco, Raynor, & Grych, 2010; Soenens et al., 2015). Therefore, the current results showed that autonomy supportive parenting plays a key role in children's optimal development by providing the crucial elements for growth in the form of satisfaction of the psychological needs for autonomy,

competence, and relatedness (Costa et al., 2019; van der Kaap-Deeder et al., 2015). Such parenting is challenging for mothers as it requires taking the perspective of the adolescents, helping them to explore and enact upon their personal values and interest (i.e., autonomy), allowing them to solve problems on their own (i.e., competence), and being there whenever needed to offer choices and provide meaningful rationales (i.e., relatedness). Therefore, the findings from the present study underline the importance of the parenting practices, especially autonomy supportive parenting, on offspring's needs.

In the last part of the process model, it was found that adolescent frustration of basic needs predicts greater depressive feelings and lower life satisfaction. In line with the assumptions of self-determination theory and with the recent research (e.g., Chen et al., 2015), the results showed that when adolescents' needs are frustrated, they tend to become more depressed and less satisfied with their life. More importantly, it was found that when initial levels of adolescent outcomes were considered, need frustration still predicted depressive feelings and life satisfaction six months later. In supporting the notion that frustration of needs increases adolescent psychological difficulties, the findings specifically show that adolescent's frustration of basic needs is a robust predictor of subsequent increases in their depressive feelings and life dissatisfaction.

Although these findings indicated that maternal autonomy support uniquely predicted adolescents' frustration of all the three needs, only need frustration in autonomy and relatedness domains predicted depressive symptoms. Thus, the findings partially supported previous empirical documentation of the three needs as distinct predictors of adolescent well-being (Chen et al., 2015). Perhaps this is because of the fact that adolescents' need for competence may perhaps be more critical for certain outcomes that are more competence-based such as academic settings (Elliot, McGregor, & Thrash, 2004). Thus, examining not only depressive feelings and life satisfaction but also academic-related outcomes as indicators of adolescent adjustment may provide a more comprehensive picture of the unique roles of each of the three needs. Therefore, future research may benefit from considering other possible developmental outcomes in their relations with basic psychological needs.

Moreover, when the unique role of the three needs was considered, it was found that none of them predicted life satisfaction. One explanation for this finding may be that both satisfaction and frustration of three needs have the unique contribution to adolescent's healthy functioning and should be considered as distinct antecedents of adolescent's well-being and ill-being. Consistent with this reasoning, self-determination theory suggests that both need frustration and satisfaction are considered as crucial mechanisms in non-optimal and optimal functioning of adolescents. While the satisfaction of these three basic needs contributes to proactivity, integration, and well-being, the frustration of them relates to passivity, fragmentation, and ill-being (Vansteenkiste & Ryan, 2013). Therefore, considering this distinction at future research with a multi-informant (see also Costa et al., 2019) and a longitudinal research design would deepen the understanding about the unique role of basic need satisfaction and frustration on adolescent functioning.

Related to gender, it was found that mothers tend to report less autonomy support towards their daughters compared to their sons and that the latter experienced more need frustration. These findings make sense from the standpoint of Turkish cultural context. Specifically, in traditional Turkish families, boys and girls are socialized quite differently. While boys are raised more independent and autonomous, girls are typically encouraged to be emotionally interdependent and obedient (Sunar & Fisek, 2005). Therefore, consistent with previous findings, Turkish mothers generally tended to show more autonomy support towards their boys. However, such mother-admitted autonomy supportive parenting might not be suffice for boys who might feel more need frustration because of their increased autonomy seeking behaviors. Of course, this is a speculative explanation so future research needs to consider also adolescent reports of autonomy support to further reveal the unique gender-related relations.

These findings should be interpreted in light of several limitations. First, only mothers' views were considered to assess interparental conflict and autonomy support. Although mothers in Turkish families are considered as the primary caregivers to their children compared to fathers (Sunar, 2002; Sunar & Fisek, 2005), the reports of fathers can also provide valuable information about marital and parental processes. Likewise, measuring the adolescent's perception of interparental conflict and autonomy support may also give

more information about the nature of the relation among study variables. Moreover, in this study, only the destructive form of conflict was examined but the constructive form of it was disregarded (McCoy et al., 2013) which may carry different implications on adolescent adjustment problems. Furthermore, depressive feelings and life satisfaction were only considered as markers of adolescent adjustment and other aspects of it such as achievement- or academic-related problems were ignored. Lastly, only eleventh graders were sampled so the findings may not be readily generalizable to other age groups.

Besides its limitations, the current study makes an important contribution to the literature by highlighting some important issues. First, this is the first study to examine the relations among interparental conflict, autonomy support, need frustration, depressive feelings, and life satisfaction in a process model by considering self-determination theory as a way to further inform spillover formulations. Additionally, mother reports for interparental conflict and autonomy support measures and adolescent reports for need frustration, depressive feelings, and life satisfaction measures were relied. By doing so, the substantial roles of interparental relation and parenting on some adolescent outcomes were tried to uncover. In addition, a longitudinal design was used and the initial levels of adolescent's outcomes were controlled to show that the significant relation between some study variables still held after six months. Lastly, this study was conducted in a non-Western context such as Turkish mothers and adolescents. Even though Turkish families have been shown to be more collectivistic and interdependent than Western families (Sunar, 2002; Sunar & Fisek, 2005), these findings were similar to findings in Western samples. Therefore, utilizing a non-Western sample provided the opportunity to test generalizability of the spillover predictions and self-determination theory assumptions and revealing the same pattern of relationships among study variables extended the findings of previous research conducted with Western samples.

CHAPTER 3

STUDY 3: NEED SATISFACTION AS A MEDIATOR OF ASSOCIATIONS BETWEEN INTERPARENTAL RELATIONSHIP DIMENSIONS AND AUTONOMY-SUPPORTIVE PARENTING: A WEEKLY DIARY STUDY

3.1. INTRODUCTION

Research has shown that both negative and positive indicators of interparental relationship are associated with the quality of parenting practices (McCoy et al., 2013) and child adjustment (Buehler & Gerard, 2002). Interparental conflict, as a negative indicator of the quality of family life, and perceived partner responsiveness, as a positive indicator, have been found to relate to partners' well-being, parenting quality, and child's adjustment (Buehler & Gerard, 2002; Millings et al., 2013; Selcuk et al., 2016). Further, although the spillover hypothesis has been empirically supported by studies which have shown a relation of negative and positive interparental dimensions to maternal parenting practices (Engfer, 1988), the intervening mechanisms explaining this relation still deserve attention. Guided by the self-determination theory (Deci & Ryan, 2000), it was examined whether fluctuations in maternal need satisfaction served as an intervening mechanism accounting for the association between fluctuations in quality of perceived interparental relationship dimensions and maternal autonomy support. It was done so because most of the prior studies have examined these associations by looking at between-individual differences, where participants typically provide aggregate accounts of their experiences over an extended period of time. Hence, little is known about the within-person ups and downs that mothers experience from week-to-week in the quality of their interparental relationship dimensions and how such relationships are linked with maternal practices (for few notable exceptions see Gadassi et al., 2016; Sears, Repetti, Reynolds, Robles, & Krull, 2016).

According to the spillover hypothesis (Engfer, 1988), unresolved anger and discord from interparental conflict is carried over into child-rearing contexts and ultimately undermines parenting practices (Cummings & Davies, 1994; Engfer, 1988; Grych & Fincham, 1990). Through this spillover process, interparental conflict is proposed to reduce maternal sensitivity to their children's needs and autonomy-supportive behaviors towards their children (Schoppe-Sullivan et al., 2007; Soenens & Vansteenkiste, 2010). On the other hand, perceived partner responsiveness, which refers to maternal feelings of support, understanding, and validation from her partner (Reis & Gable, 2015), has been positively linked with effective child-rearing practices (Millings et al., 2013).

Although spillover hypothesis proposes that difficulties and strengths of the interparental relationship proliferate to affect parenting, little is known about the specific processes that mediate this link. In this regard, self-determination theory predicts a unique link between interparental relationships and parenting behaviors. Self-determination theory suggests that high levels of distress accompanying interparental conflict impede basic needs of autonomy, competence, and relatedness (Patrick et al., 2007) which, in turn, may interfere with autonomy-supportive parenting (e.g., Costa et al., 2019). Although people have an inherent tendency to maintain an optimal level of functioning, certain conditions and strategies may foster fulfillment of these needs (Ryan & Deci, 2001).

According to self-determination theory, autonomy-supportive parenting is one important dimension of a need-supportive parenting style (Costa et al., 2019). Mothers who are autonomy-supportive take their children's perspective and provide a set of meaningful options for them while offering rationales when certain choices are constrained (Soenens & Vansteenkiste, 2010). From the self-determination perspective, it is well-known that parents are likely to engage in supportive parenting behaviors when they feel that their needs for autonomy, competence, and relatedness are satisfied (Grolnick, 2003). The need for autonomy is satisfied when people perceive that they act, feel, and think in accordance with their own choices and sense of self. The need for competence is fulfilled when people interact effectively with their environment. Lastly, the need for relatedness is satisfied when people form warm and meaningful bonds with significant others (Deci & Ryan, 2000).

Although these three needs are theoretically distinct, they are empirically interconnected (Ryan & Deci, 2001). The frustration of one need is posited to undermine the fulfillment of the other needs and collectively result in impairments in functioning. Need satisfaction underlying optimal functioning not only encompasses desired inner emotional experience such as life satisfaction and well-being (e.g., Wang, Liu, Jiang, & Song, 2017) but interpersonal behaviors involving the provision of autonomy support towards intimate partners and children (Deci & Ryan, 2014; Mabbe, Soenens, Vansteenkiste, van der Kaap-Deeder, & Mouratidis, 2018). A recent diary study conducted by van der Kaap-Deeder et al. (under review) showed that greater maternal need fulfillment predicted their greater psychological availability and, in turn, autonomy support in parenting practices. Therefore, this relatively recent line of research provides some evidence that maternal psychological needs satisfaction is expected to be associated with autonomy-supportive maternal practices. Therefore, on the assumption that interparental conflict relates negatively to needs satisfaction, it is presumed that it will relate negatively to autonomy support as well.

In contrast to interparental conflict, perceived partner responsiveness is considered a need supportive behavior satisfying not only the need for relatedness (see Reis, Sheldon, Gable, Roscoe, & Ryan, 2000) but also the needs for autonomy and competence (Patrick et al., 2007). Indeed, receiving care and empathy from her partner reflects autonomy support that can satisfy maternal need for autonomy; accordingly, receiving support for her goals and wishes reflects instrumental support that make the mother feel more effective thus satisfying her need for competence (La Guardia, Ryan, Couchman, & Deci, 2000). Therefore, theory and extant empirical work suggest that perceived partner responsiveness may predict greater maternal autonomy support through greater need satisfaction. However, existing research on perceived partner responsiveness as antecedents of need satisfaction and maternal autonomy support is limited.

Although the relation between interparental conflict and parenting behaviors has been previously examined with a Turkish sample (Sayıl et al., in press), there is still a dearth of knowledge about the unique role that positive and negative dimensions of interparental relationship can play on parenting behaviors and the possible mediating mechanisms that

may explain this association (Güre, 2012). Therefore, examining these associations in a non-Western cultural context would provide further evidence about the generalizability of the relations among interparental conflict and responsiveness and maternal autonomy support and the processes (i.e., need satisfaction) underpinning these associations. This is a key issue because in the Turkish cultural context, interdependent and close family relationships are highly valued. In fact, in Turkey, the goal of becoming a good parent is often prioritized over becoming a good spouse (Sayıl & Kındap, 2010; Sunar, 2002). Documenting interdependence between interparental and mother-child relationships in this cultural context may elucidate an understanding of the role interparental relationship quality may play in accounting for fluctuations in maternal parenting.

The moderate magnitude of associations between interparental relationship dimensions and parenting and the heterogeneity in the associations between need satisfaction and autonomy support (Costa et al., 2019) underscore the value of identifying maternal characteristics that may moderate the within-person relation of perceived interparental conflict and responsiveness to autonomy support through need satisfaction. In this regard, previous research suggests that perfectionism, which is characterized by dispositions to set excessively high standards and engage in critical self-evaluations (Frost, Marten, Lahart, & Rosenblate, 1990), may alter such within-person associations (Soenens, Vansteenkiste, et al., 2005). As a multidimensional construct, perfectionism differentiates personal standards and organization from evaluative concerns or worries over mistakes and doubts about actions (Frost, Heimberg, Holt, Mattia, & Neubauer, 1993). Research has shown that evaluative concerns are less adaptive than personal standards and organization (Frost et al., 1993; Frost et al., 1990) and that mothers who are overwhelmed by evaluative concerns are less likely to engage in autonomy-supportive practices (Soenens, Vansteenkiste, et al., 2005). Although there is a paucity of parenting research on perfectionism among Turkish mothers, recent research conducted with Arab mothers and adolescents from regions of Middle East (e.g., Jordan) yielded findings similar to Western samples in documenting linkages between maladaptive forms of perfectionism and impairments in parental autonomy support (Ahmad & Soenens, 2010; Soenens, Elliot, et al., 2005). However, none of the research examined the moderating role of maternal perfectionism in the mediational relations among week-to-week interparental

relationship dimensions, maternal need fulfillment, and autonomy-supportive parenting. Therefore, a pertinent question is whether interparental relationship quality, maternal satisfaction of psychological needs, and their autonomy support of their children may vary as a function of differences in their personal standards or evaluative concerns. Knowing whether these within-person relations are moderated by maternal perfectionistic attitudes may benefit to design more effective interventions in the future.

In this six-week diary study, the week-to-week relations among maternal experiences with interparental conflict and perceived partner responsiveness and their autonomy support and the mediating role of maternal need satisfaction in these associations were examined. This study builds on the existing literature in some important and novel ways. First, by undertaking a more dynamic approach, it was studied how mother perceived quality of interparental relationships (i.e., interparental conflict and partner responsiveness) relate to maternal practices (i.e., autonomy support). In that way, this study tried to build on longitudinal studies that have examined how family relationships evolve across time (Gadassi et al., 2016; Sears et al., 2016). A week-to-week rather than day-to-day or hourly examination of these relations was opted to provide ample time for mother-partner and mother-child relationships to evolve and fluctuate across time. Second, it was tested whether theoretically relevant psychological processes (i.e., need satisfaction) could explain the associations between mother-perceived quality of interparental relationship dimensions and maternal autonomy support. Third, in contrast to the reliance on a single rater measures of maternal autonomy support in previous diary studies (for one of the few exceptions see van der Kaap-Deeder, Vansteenkiste, Soenens, & Mabbe, 2016), both maternal and adolescent reports of maternal autonomy support were assessed to reduce common method variance. This focus on maternal autonomy support as the central dimension of parenting was guided by previous work on its role as a common sequelae of need frustration and a critical determinant of adolescent's adjustment (e.g., Soenens & Vansteenkiste, 2005). In addition, focusing on both conflict and responsiveness in the same study allowed to more comprehensively examine the interparental "strengths" and "strains" in the prediction of autonomy support (Slatcher & Selcuk, 2017). Finally, due to its significance in understanding maternal need satisfaction and autonomy support in self-determination theory (Soenens & Vansteenkiste, 2010;

Soenens, Vansteenkiste, et al., 2005), maternal perfectionism was investigated as a moderator in the mediational pathways.

Given that most of the studies have been conducted mostly in Western cultural contexts (for one of the few exceptions see Bradford et al., 2003), focusing on examining the interplay between interparental functioning in a non-Western (i.e., Turkish) cultural context will enable to test the generalizability of previous findings from spillover and self-determination theories. The autonomy support practices of mothers were taken because mothers tend to be more involved in the lives of their children in both Western and non-Western samples (e.g., Grolnick et al., 2007; Richardson et al., 1984; Sayil & Kındap, 2010). The decision to examine the research questions in families with adolescents was based on prior work underscoring the developmental salience and its implications for offspring adjustment during adolescence (Silk et al., 2003).

The following hypotheses were formulated. First, based on the spillover hypothesis and the self-determination theory, it was expected that week-to-week perceived interparental conflict would relate negatively, and perceived partner responsiveness would relate positively to mother's need satisfaction. Maternal need satisfaction, in turn, would relate positively to maternal and adolescent reports of maternal autonomy support. Second, it was anticipated that the week-to-week negative relation between interparental conflict and need satisfaction would be stronger among mothers who reported lower levels of personal standards and organization, and higher levels of evaluative concerns. The opposite prediction was made for the week-to-week relation between perceived partner responsiveness and need satisfaction and between need satisfaction and autonomy support.

3.2. METHOD

3.2.1. Participants

Participants were 258 married mothers ($M_{age} = 41.71$, $SD = 4.78$; age range: 30 to 57 years) who were living together with their husband and had at least one adolescent child between the ages of 12 and 18 years old. All the adolescents attended either secondary

(36.8%) or high school (63.2%). On average, the mothers were married for 20.23 years ($SD = 3.95$; range: 12 to 34 years). These mothers were from different regions of Turkey and most of them were living in large urban cities ($n = 211$; 81.9%). In addition, 61 of the mothers (23.6%) graduated from primary school, 37 of them (14.3%) from secondary school, 77 of them (29.8%) from high school, and 83 of them (32.3%) from university or above. Regarding the families' perceived socioeconomic status, 179 (69.4%) mothers classified their families as middle class, 39 (15.0%) into below, and 40 (15.6%) into above middle class. Because several mothers refused to include their children in the study, the number of the adolescent participants relative to mother participants was somewhat smaller ($N = 157$; 51.4% female, $M_{age} = 14.92$, $SD = 1.72$; age range: 12 to 18 years; the mean age of adolescents for the full sample [$N = 258$] was 14.98 [$SD = 1.68$]). Individual t -tests showed that there was no significant differences between mothers whose adolescents participated and mothers whose adolescents did not participate in terms of demographic variables including mother's education level ($M = 3.87$, $SD = 1.43$; $M = 4.07$, $SD = 1.58$, respectively), perceived socioeconomic status ($M = 2.99$, $SD = 0.66$; $M = 2.95$, $SD = 0.77$, respectively), and adolescent age ($M = 15.01$, $SD = 1.71$; $M = 14.93$, $SD = 1.63$, respectively).

3.2.2. Procedure

Before data collection, approval was obtained from the ethical committee of the Hacettepe University. The mothers and their adolescents were recruited and followed during the diary phase by means of 61 volunteer students attending the Life Span Development course at the Hacettepe University. Students were asked to approach five intact families with at least one adolescent child between 12 and 18 years old. The volunteer students were informed by the researcher in a one-hour meeting about the data collection procedures. In acting as intermediaries between the researcher and the participants, the primary responsibilities of the student volunteers was to remind mothers and adolescents to complete the questionnaires on time and address questions about the study and data collection process. The questionnaires were administered online through [surveeey.com](https://www.surveeey.com) and sent through the volunteer students to each mother and her child during weekdays that best fit the individual schedules of each family. Moreover, the volunteer students assured the participants about the confidentiality of the study, the anonymity of their

responses, and their right to withdraw from the study at any time. Student volunteers received a certificate for their assistance in data collection. Mothers and adolescents did not receive compensation for their participation.

The data collection period consisted of two phases: A pre-diary phase and diary phase. In the pre-diary phase, a questionnaire packet including the informed consent, demographic information form, and the perfectionism scale were sent to the mothers. In the diary phase, a diary form including weekly measures of interparental conflict, perceived partner responsiveness, need satisfaction, and autonomy-supportive parenting was sent to mothers three weeks after the pre-diary phase. The mothers were asked to fill out the questionnaires on the same day during 6 consecutive weeks. Adolescents began the diary phase of the study during the 3rd week of the maternal diary phase as the beginning of diary phase of data collection (November) coincided with their school exam period. They filled out the autonomy support scale for 5 (instead of 6 as mothers did) consecutive weeks so the data collection for adolescents was finished one week after the end of the data collection period of mothers.

3.2.3. Measures

3.2.3.1. Perfectionism

Mothers responded to selected items and subscales from the Turkish adaptation of the Multidimensional Perfectionism Scale (Frost et al., 1990; Sayıl et al., 2012). The 21-item measure of perfectionism is designed to capture organization (e.g., “I try to be an organized person”), personal standards (e.g., “It is important to me that I be thoroughly competent in everything I do”), concerns over mistakes (e.g., “If I do not do as well as other people, it means I am an inferior human being”), and doubts about action (e.g., “It takes me a long time to do something ‘right’”). Response alternatives ranged from 1 = “*Totally disagree*” to 5 = “*Totally agree*”. Consistent with previous studies (Frost et al., 1993), a principal component analysis extracted two factors with the items of personal standards and organization falling into the one factor and the items of concerns over mistakes and doubts about action comprising the second factor. The two factors explained a total of 73% of the variance. In light of this evidence, the items from personal standards

and organization were aggregated to create a subscale of personal standards and organization ($\alpha = .76$) and the items from concerns over mistakes and doubts about actions to form a subscale of evaluative concerns ($\alpha = .84$).

3.2.3.2. Week-to-week Interparental Conflict

During six consecutive weeks, the mothers completed an abbreviated Turkish version of the O’Leary-Porter Scale (Peksaygılı & Güre, 2008; Porter & O’Leary, 1980). The items were adapted to assess weekly interparental conflict (e.g., “Last week, my husband and I sometimes argued over money matters”) on a four-point Likert type scale (1 = “*Never*” to 4 = “*Always*”). Following statistical recommendations for calculating reliability with repeated measures nested within the same participants (Geldhof, Preacher, & Zyphur, 2014), the internal consistency of the scale was .85 at the between-person level and .63 at the within-person level.

3.2.3.3. Week-to-week Perceived Partner Responsiveness

Mothers answered three items from the Turkish translation of the Perceived Partner Responsiveness Scale (Reis, 2003; Taşfiliz, Sağel Çetiner, & Selçuk, under review) on a seven-point Likert type scale (1 = “*Totally disagree*” to 7 = “*Totally agree*”). The items were adapted to assess weekly responsiveness perception of the mothers from their partners (e.g., “Last week, I felt that my partner understood me”). The internal consistency, as computed according to the procedures described by Geldhof et al. (2014), was .97 for between-person level and .84 for within-person level.

3.2.3.4. Week-to-week Psychological Need Satisfaction

The six items from the Turkish translation of the Basic Psychological Need Satisfaction and Need Frustration Scale (Chen et al., 2015; Mouratidis et al., under review) were used to ask the mothers to what extent the previous week they satisfied their need for autonomy (2 items; e.g., “Last week, I felt that my decisions reflect what I really want”), competence (2 items; e.g., “Last week, I felt capable at what I did”), and relatedness (2 items e.g., “Last week, I felt that the people I care about also care about me”). Given that all three needs are positively correlated and were combined in previous studies (e.g., Ryan & Deci,

2001), a composite score of psychological need satisfaction was created. The items were adapted slightly to assess weekly need satisfaction over a five-point Likert type scale (1 = “*Totally disagree*” and 5 = “*Totally agree*”). The internal consistency after controlling for the repeated-measure variance (Geldhof et al., 2014) was .90 for between-person level and .75 for within-person level.

3.2.3.5. Week-to-week Maternal Autonomy Support

Through six items taken from the Turkish translation of the autonomy support subscale of Children's Perceptions of Parents Scale (Kindap, 2011; Soenens, Vansteenkiste, Lens, et al., 2007), it was asked to adolescents to what extent their mothers provided autonomy support towards them (e.g., “Last week, my mother tried to understand how I saw things before suggesting a new way to do something”). The same items were adapted to capture mothers’ perception about their own autonomy-supportive behavior (e.g., “Last week, I tried to understand how my child saw things before suggesting a new way to do something”). The responses were given on a five-point Likert type scale (1 = “*Totally disagree*” to 5 = “*Totally agree*”) and the internal consistency of the scale after controlling for the repeated-measure variance (Geldhof et al., 2014) was .97 for between-person level and .78 for within-person level for the mother scale and .94 for between-person level and .73 for within-person level for the adolescent scale.

3.2.4. Data Analyses

A multilevel analysis was used to test the hypotheses because the data were hierarchically structured, with repeated-measures (i.e., Level 1) nested within participants (i.e., Level 2). At the within-person level, a single model was tested where all exogenous within-person predictors (i.e., interparental conflict and perceived partner responsiveness) were group-mean centered and their slopes were modeled as randomly varying from person to person to properly test the variation of the week-to-week associations among the studied variables and the presence of cross-level interactions (Raudenbush & Bryk, 2002). A multilevel model was set up in a stepwise fashion. In the first step, the unconditional (i.e., no predictor) model was examined to determine the degree of variance at the within-person and between-person levels. Next, the within-person predictors were entered to

examine the degree of within-person variance in maternal need satisfaction that is explained by interparental conflict and perceived partner responsiveness and the degree of within-person variance in mother-reported and adolescent-reported maternal autonomy support that is explained by maternal need satisfaction by also considering the direct paths among these variables. Then, in the final step, the between-person predictors of mother's perfectionistic attitudes (i.e., evaluative concerns and personal standards and organization) were included to test for the cross-level interactions among interparental conflict, perceived partner responsiveness, need satisfaction, and mother- and adolescent-reported maternal autonomy support. The stepwise approach for the model enabled to examine how variance is first explained at the within-person level before determining the variance explained at the between-person level. All between-person predictors were grand-mean centered.

Moreover, within-level maternal autonomy support (both mother- and adolescent-reported) was estimated by the following set of equations: For week-to-week maternal provision of autonomy support, at the intrapersonal level, the model was:

$$AS_{ij} = \beta_{0j} + \beta_{1j} (NS) + r_{ij},$$

where AS_{ij} refers to the week-to-week autonomy support in week i being reported by mother (or adolescent) j , β_{0j} refers to the intercept of autonomy support for mother j , $\beta_{1j} (NS)$ refers to the need satisfaction in week i being reported by mother j , and r_{ij} refers to the residual (i.e., error) for week i for mother j .

At the interpersonal level the model was:

$$\beta_{0j} = \gamma_{00} + \gamma_{01} (PS) + \gamma_{02} (EC) + u_{0j}$$

$$\beta_{1j} = \gamma_{00} + \gamma_{01} (PS) + \gamma_{02} (EC) + u_{0j}$$

where β_{0j} (i.e., the intercept for mother j) and β_{1j} (i.e., the week-to-week need satisfaction for mother j) are both estimated as a function of γ_{00} which stands for the grand intercept (i.e., the mean of the means of autonomy support), γ_{01} and γ_{02} (PS), which reflect, respectively, the personal standards (PS) and evaluative concerns (EC) that each mother-reported at the pre-diary phase, and u_{0j} which refers to the error (residual) between the estimated and the observed scores for mother j .

Accordingly, the model that refers to the prediction of week-to-week need satisfaction (NS) as a function of interparental conflict (IPC) and perceived partner's responsiveness (PPR) was at the intrapersonal level as:

$$NS_{ij} = \beta_{0j} + \beta_{1j} (\text{IPC}) + \beta_{2j} (\text{PPR}) + r_{ij},$$

and at the interpersonal level as

$$\beta_{0j} = \gamma_{00} + \gamma_{01} (\text{PS}) + \gamma_{02} (\text{EC}) + u_{0j}$$

$$\beta_{1j} = \gamma_{00} + \gamma_{01} (\text{PS}) + \gamma_{02} (\text{EC}) + u_{0j}$$

$$\beta_{2j} = \gamma_{00} + \gamma_{01} (\text{PS}) + \gamma_{02} (\text{EC}) + u_{0j}$$

All the models were tested by means of Mplus Software Program (Muthén, 2012).

3.3. RESULTS

Individual *t*-test results showed that the mothers whose adolescents participated and the mothers whose adolescents did not participate did not differ in terms of both trait-level (i.e., evaluative concerns and personal standards and organization) and week-level measures (i.e., interparental conflict, perceived partner responsiveness, need satisfaction, and mother-reported autonomy support) (all *p*'s > .05). Table 3 shows the descriptive statistics, within-person and between-person correlations of the week-to-week measures as well as their Intraclass Correlation Coefficients (ICC). As expected, ICCs indexing the percentage of variance at the between-person level indicated that there was a substantial variability from week to week (range of variance at the within-person level 47% - 57%). Lastly, demographic variables such as gender, age, mother's education level, and perceived socioeconomic status were not correlated to any of the other variables of the study and the model remained virtually the same, even if they were controlled. Therefore, these demographics were not added to the last model for the sake of parsimony.

3.3.1. Main Analyses

3.3.1.1. Week-to-week Relations

Whether need satisfaction mediated the week-to-week relations of interparental conflict and perceived partner responsiveness to mother-reported autonomy support and adolescent-reported autonomy support was examined with a single multilevel model. As

shown in Figure 5, week-to-week interparental conflict was negatively related to week-to-week need satisfaction ($B = -0.09$, $SE = 0.03$, $p < .001$, 95% CI [-0.13, -0.05]) and the opposite was true for perceived partner responsiveness ($B = 0.10$, $SE = 0.02$, $p < .001$, 95% CI [0.08, 0.13]). In turn, week-to-week need satisfaction was positively related to both mother-reported ($B = 0.22$, $SE = 0.04$, $p < .001$, 95% CI [0.16, 0.28]) and adolescent-reported ($B = 0.16$, $SE = 0.06$, $p = .007$, 95% CI [0.06, 0.25]) autonomy support. Lastly, in considering the direct paths among interparental conflict and perceived partner responsiveness and mother- and adolescent-reported autonomy support, it was found that week-to-week perceived partner responsiveness was marginally positively related to mother-reported autonomy support ($B = 0.03$, $SE = 0.02$, $p = .053$, 95% CI [0.004, 0.05]).

Inspection of the variance part of the model showed that the week-to-week relation between interparental conflict and need satisfaction did not significantly vary from mother to mother ($B = 0.03$, $SE = 0.03$, $p = .343$, 95% CI [-0.02, 0.07]) and the same was true for the relation between need-satisfaction and mother-reported autonomy support ($B = 0.00$, $SE = 0.002$, $p = .974$, 95% CI [-0.004, 0.004]). In contrast, significant variability was found for relations between: (1) perceived partner responsiveness and need satisfaction ($B = 0.02$, $SE = 0.01$, $p = .005$, 95% CI [0.01, 0.024]); and (2) need satisfaction and adolescent-reported autonomy support ($B = 0.01$, $SE = 0.01$, $p = .025$, 95% CI [0.003, 0.02]). Thus, the significant fluctuations in these week-to-week associations reflect that there are some other undetected (including error measurement) sources of heterogeneity in these associations.

Table 3. Descriptive Statistics and Correlations among the Study Variables Lying at the Within-Person (Lower Diagonal) and Between-Person (Upper Diagonal) Levels for Study 3.

Variables	1	2	3	4	5	6	7
Between-person variables							
1. Personal standards and organization (M)	-	.11	-.13	.07	.33**	.19*	.04
2. Evaluative concerns (M)		-	.14*	-.18*	-.24**	-.25**	-.06
Within-person variables							
3. Interparental conflict (M)			-	-.44**	-.28**	-.16*	-.17
4. Perceived partner responsiveness (M)			-.23**	-	.63**	.41**	.29**
5. Need satisfaction (M)			-.17**	.26**	-	.59**	.27**
6. Maternal autonomy-support (M)			-.08	.12**	.27**	-	.39**
7. Maternal autonomy-support (A)			-.06	-.03	.11*	.12*	-
<i>ICC</i>			.51	.49	.45	.53	.43
<i>M</i>	4.29	2.36	2.25	4.92	4.08	4.38	3.85
<i>SD</i>	0.56	0.78	0.70	1.29	0.51	0.53	0.62

Note. * $p < .05$. ** $p < .01$ (two-tailed). M = Mother reported; A = Adolescent reported.

† The correlations for mothers are based on 1445 observations at the within-person level and 252 at the between person-level.

‡ The correlations for adolescents are based on 574 observations at the within-person level and 157 at the between person-level.

Moreover, a test of indirect effects over the fixed slopes showed that interparental conflict predicted mother-reported autonomy support ($\beta = -.03$, $SE = .01$, $p = .008$, 95% CI [-0.04, -0.01]) and perceived partner responsiveness predicted both mother-reported ($\beta = .03$, $SE = .01$, $p < .001$, 95% CI [0.01, 0.04]) and adolescent-reported ($\beta = .02$, $SE = .01$, $p = .048$, 95% CI [0.003, 0.03]) autonomy support indirectly through need satisfaction. These findings suggest that need satisfaction was acting as a mediating mechanism in the links among interparental conflict and mother-reported autonomy support and also the links among perceived partner responsiveness and mother- and adolescent-reported autonomy support. In this model, interparental conflict and perceived partner responsiveness explained 26% of week-to-week variance in need satisfaction, whereas need satisfaction explained 11% of the variance in week-to-week mother-reported autonomy support and 5% of the variance in adolescent-reported autonomy support.

3.3.1.2. Cross-level Interactions

Whether evaluative concerns and personal standards and organization moderated the week-to-week relations among: (1) interparental conflict and perceived partner responsiveness to need satisfaction; and (2) need satisfaction and mother- and adolescent-reported autonomy support was investigated. As shown in Figure 5, personal standards and organization did not moderate any of the hypothesized associations. However, evaluative concerns moderated the week-to-week relation between need satisfaction and mother-reported autonomy support ($B = 0.15$, $SE = 0.07$, $p = .020$, 95% CI [0.04, 0.26]). Further, a test of simple slopes (Preacher, Curran, & Bauer, 2006) revealed that the week-to-week relation between need satisfaction and mother-reported autonomy support was stronger among mothers with high (i.e., +1 *SD* above the mean) evaluative concerns ($B = 0.35$, $SE = 0.07$, $z = 5.13$, $p < .01$) relative to mothers with moderate (around the mean) ($B = 0.24$, $SE = 0.04$, $z = 6.41$, $p < .01$) or low (i.e., -1 *SD* below the mean) evaluative concerns ($B = 0.13$, $SE = 0.05$, $z = 2.29$, $p = .022$).

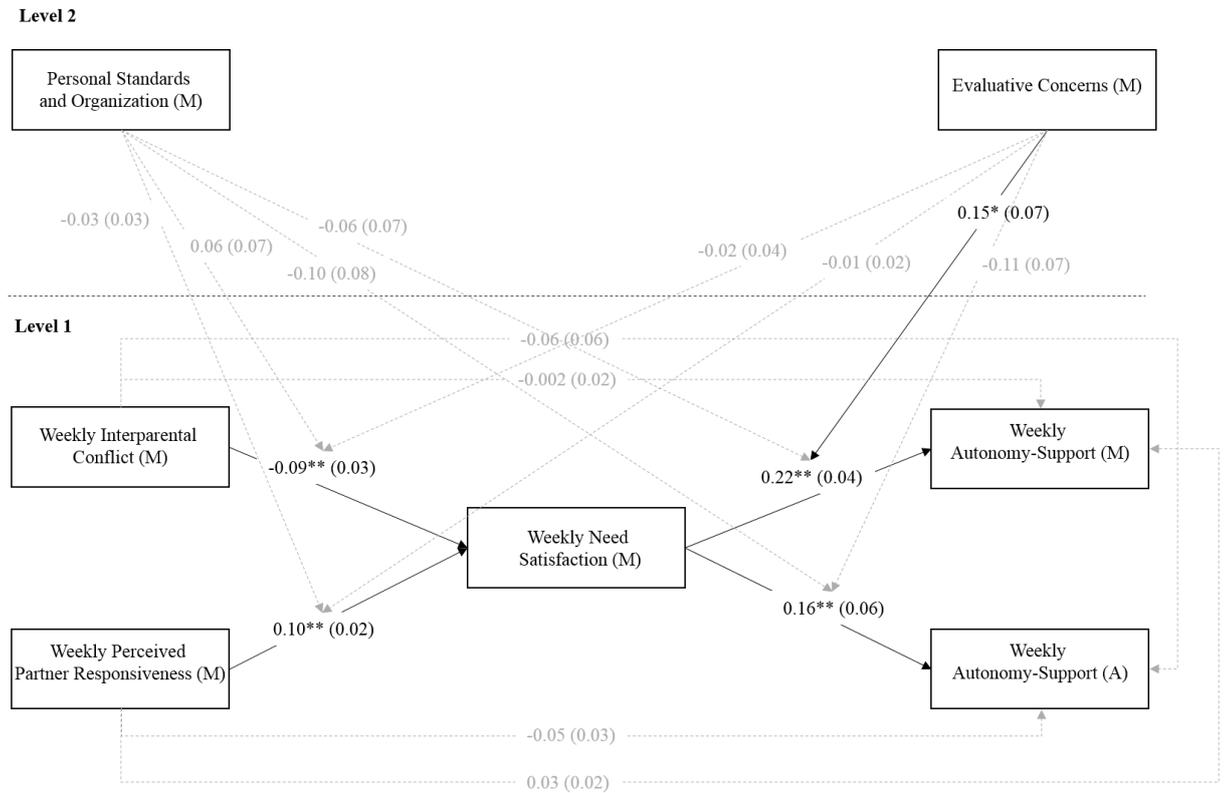


Figure 5. Study 3 – The Multilevel Model Showing the Mediating Role of Maternal Need Satisfaction in Relation of Interparental Conflict and Perceived Partner Responsiveness to Maternal Autonomy-Support.

Note. Coefficients shown are unstandardized path coefficients with standard errors within the parentheses; “M” stands for the mothers which includes 252 mothers (1445 weekly observations; average number of observations per mother $n = 5.73$) and “A” stands for the adolescents ($N = 157$; 574 observations; average number of observations per adolescent $n = 3.66$). Dotted grey lines represent non-significant parameters.

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

3.3.1.3. Lagged Mediational Analyses

A more conservative test where (1) current week (W) mother-reported (or adolescent-reported) autonomy-support was predicted by W-1 maternal need satisfaction, after controlling for W-1 mother-reported (or adolescent-reported) autonomy-support; and (2) W-1 need satisfaction was predicted by W-2 interparental conflict and responsiveness (after controlling for W-2 need satisfaction) was further ran to examine the robustness of the findings. The results showed that when the effect of W-2 need satisfaction was controlled, W1 need satisfaction was not predicted either by W-2 interparental conflict ($B = 0.05$, $SE = 0.04$, $p = .191$, 95% CI [-0.01, 0.11]) or W-2 perceived partner responsiveness ($B = 0.03$, $SE = 0.02$, $p = .143$, 95% CI [-0.004, 0.06]). Likewise, when W-1 autonomy-support was controlled, the relation between W-1 need satisfaction and W autonomy-support was nonsignificant (for mother-reported: $B = 0.10$, $SE = 0.07$, $p = .155$, 95% CI [-0.02, 0.22]; for adolescent-reported: $B = -0.004$, $SE = 0.08$, $p = .959$, 95% CI [-0.13, 0.12]). In a less conservative test, where the same relations were examined but without controlling for previous week effects, it was found that W-1 need satisfaction was not predicted either by W-2 interparental conflict ($B = -0.05$, $SE = 0.03$, $p = .073$, 95% CI [-0.13, 0.02]) or W-2 perceived partner responsiveness ($B = -0.02$, $SE = 0.02$, $p = .245$, 95% CI [-0.07, 0.03]). Likewise, the relation between W-1 need satisfaction and W autonomy-support was nonsignificant (for mother-reported: $B = -0.03$, $SE = 0.06$, $p = .668$, 95% CI [-0.17, 0.12]; for adolescent-reported: $B = 0.04$, $SE = 0.05$, $p = .498$, 95% CI [-0.10, 0.17]).

3.3.1.4. Moderated Mediation

A moderated mediation was tested for the multilevel mother model with Selig and Preacher's (2008) interactive tool for creating confidence intervals for indirect effects. The results showed that the weekly need satisfaction significantly mediated the relation between weekly interparental conflict and maternal autonomy support for mothers with high (i.e., +1 *SD* above the mean) evaluative concerns (95% CI [-0.058, -0.009]) and low (i.e., -1 *SD* below the mean) evaluative concerns (95% CI [-0.025, -0.002]). Furthermore, it was also found that weekly need satisfaction significantly mediated the relation between weekly perceived partner responsiveness and maternal autonomy support for mothers

with high (i.e., +1 *SD* above the mean) evaluative concerns (95% CI [0.017, 0.056]) and low (i.e., -1 *SD* below the mean) evaluative concerns (95% CI [0.003, 0.025]).

3.4. DISCUSSION

In line with the hypotheses, week-to-week interparental conflict was negatively and perceived partner responsiveness was positively related to need satisfaction which, in turn, was associated with greater maternal and adolescent reports of autonomy support. Although the relations did not remain statistically significant in lagged mediational analyses, these results provide some evidence that autonomy support is associated with positive and negative interparental relationship dimensions and that need satisfaction may serve as an intervening mechanism. Consistent with the spillover hypothesis (Engfer, 1988; Millings et al., 2013), the results suggest that mothers may transfer both positive and negative experiences with their partners to their child through variations in their autonomy support (Grolnick, 2003; van der Kaap-Deeder et al., 2016). To address gaps in understanding the precise psychological processes underlying the spillover hypothesis, this study utilized self-determination theory as a heuristic for delineating how and why positive and negative interparental relationship dimensions may be associated with maternal autonomy-supportive child-rearing practices. In support of the self-determination theory (La Guardia & Patrick, 2008; Patrick et al., 2007), these results showed that interparental conflict was associated with maternal difficulties in satisfying their psychological needs, as characterized by diminished levels of volition, self-initiation, perceived effectiveness and competence, and investment in forming mutual relationships. In contrast, mothers in the more supportive family contexts characterized by perceived partner responsiveness experienced greater maternal satisfaction of needs for autonomy through actions and feelings that are consistent with their own choices, competence in effectively interacting with the environment, and relatedness in the formation of close interpersonal relationships (La Guardia & Patrick, 2008; Reis et al., 2000).

The results further indicated that mothers who experienced greater need satisfaction, in turn, also exhibited more autonomy-supportive parenting with their adolescents. In line

with the self-determination theory perspective, prior research has shown that problems with satisfying basic psychological needs in intimate adult relationships predict parental emotional unavailability, insensitivity, and diminished autonomy support in interactions with their children (Costa et al., 2019; van der Kaap-Deeder et al., under review). In sum, these findings help to elucidate the nature of the interrelationships between interparental and parent-child subsystems. When self-determination theory is interpreted in the framework of family systems theory (Sturge-Apple, Davies, Winter, Cummings, & Schermerhorn, 2008), these findings suggest that maternal need satisfaction may be a key mechanism accounting for why interparental relationship processes may spread to affect the parent-child relationship.

Regarding the role of maternal perfectionism as a moderator, it was found that the week-to-week positive relation between need satisfaction and maternal reports of autonomy support was more pronounced among mothers with high levels of evaluative concerns. As one possible explanation for this unexpected finding, mothers with high evaluative concerns may have to rely more heavily on their own need satisfaction to bolster autonomy-supportive parenting practices with their children. These mothers may feel that they have to satisfy their own needs to be able to perceive themselves as an autonomy-supportive parent. For example, it is plausible that need satisfaction is a more critical precursor of autonomy-supportive parenting for these mothers with high evaluative concerns because they tend to experience more contingent self-worth (Soenens, Vansteenkiste, et al., 2005). Of course, this is a speculative explanation that awaits further testing so future research needs to address this important issue.

The documentation of indirect paths between maternal appraisals of interparental conflict and responsiveness, need satisfaction, and autonomy support in a sample of Turkish families also has important implications for the generalizability of spillover processes between the interparental and parent-child subsystems. Despite some evidence suggesting that parent-child subsystem are more highly valued than the interparental subsystem in Turkish culture (Sunar, 2002), the results supported the generalizability of hypothesized processes derive from spillover and self-determination theories. Thus, the pattern of

findings is important in elucidating family processes in a non-Western sample that is generally under-represented in the family psychology literature.

The present study has several limitations that should be underscored. First, the cross-sectional nature of the findings makes it impossible to disentangle the causal order of study variables. Given that a significant lagged association among the study variables were not found, it is possible that the hypothesized pathways may operate within different temporal periods (e.g., days, months) than the weekly windows of assessment. Alternatively, it is possible that the temporal ordering and directionality among the variables may be different than the hypotheses. Therefore, lagged analyses with other longitudinal data are needed to replicate and extend these findings. Second, although focusing on adolescence was guided by the high significance attached to autonomy-supportive parenting during this developmental period, examining the spillover pathways and mechanisms with children in other age groups is an important direction for future research. Third, although different informants were utilized in the measurement battery, the use of a single method (i.e., survey) with abbreviated versions of some of the surveys in the diary portion of the study is a notable limitation of this methodological approach. Therefore, other methods (e.g., observational assessments) and designs (e.g., experimental research) would provide valuable methodological complements to the current study. Fourth, only mothers were sampled to examine the quality of interparental relationships. Although mothers are considered the primary caregivers in Turkish families (Sunar, 2002), paternal perceptions of interparental relationships, need satisfaction, and autonomy-supportive behaviors should be also investigated in future studies. Finally, although autonomy-supportive parenting were chosen based on its central role in self-determination theory, future research would benefit from expanding assessments of parenting.

In conclusion, examining the dynamics of interparental conflict and perceived partner responsiveness and their relations to mother's need satisfaction and parenting practices by considering the moderating role of maternal perfectionism may help to better understand under what particular conditions mothers can become more autonomy-supportive towards their children especially in an under-researched population. In this

regard, self-determination theory provided a useful heuristic for more precisely identifying the specific processes that may be underlying the spillover process. Such knowledge may provide a translational foundation for developing and refining interventions that are designed to improve parenting practices and interparental relations.

CONCLUSION

The aim of the present dissertation is to test a process model where interparental conflict and perceived partner responsiveness relate to adolescents' behavioral and emotional adjustment by means, among others, of the psychologically controlling and autonomy supportive parenting practices that a mother endorses towards her children. In addition, it was aimed to investigate whether need frustration is an explanatory mechanism that explains (a) why a mother who perceives conflict or responsiveness from her spouse endorses a psychologically controlling or autonomy supportive parenting behavior and (b) why an adolescent who experiences such parenting styles from his or her mother shows adjustment or maladjustment. Three studies addressing these purposes were planned.

Firstly, in the first study, it was examined whether the relation between interparental conflict and adolescent's relational aggression and perceived loneliness is mediated by maternal psychological control. The results of the Study 1 supported the spillover hypothesis. Specifically, in line with the expectations, the results showed that interparental conflict (as reported by both adolescents and mothers) related positively to maternal psychological control (reports of both adolescents and mothers) which in turn positively predicted adolescent relational aggression and loneliness, eight months later.

In the second study, the adolescent side of the model was taken and the mediating roles of maternal autonomy support and adolescent need frustration in relation between interparental conflict and adolescent depressive feelings and life satisfaction were examined. The results supported both the spillover hypothesis and the self-determination theory. In line with these theories and the hypotheses, the results showed that interparental conflict predicted less maternal autonomy support which in turn associated with high adolescent need frustration. Moreover, adolescent need frustration is associated with adolescent depressive feelings and life dissatisfaction, 6 months later.

Lastly, in the third study, the mother side of the model was taken and whether the association of weekly interparental conflict and weekly perceived partner responsiveness with weekly maternal autonomy support is mediated by weekly need satisfaction was examined. The results supported both the spillover hypothesis and the self-determination theory. In line with the assumptions of these theories and the hypotheses, the results showed that while week-to-week interparental conflict negatively predicted week-to-week mother's need satisfaction, week-to-week perceived partner responsiveness positively predicted it. Moreover, weekly mother's need satisfaction, in turn, positively predicted adolescent- and mother-reports of weekly maternal autonomy support. Furthermore, week-to-week associations among study variables were moderated by mother's perfectionism. Specifically, week-to-week positive relation between need satisfaction and mother reported autonomy-support was more pronounced among mothers with high levels of evaluative concerns.

Generally, the results of this dissertation extend the current knowledge by testing a process model where both interparental conflict and perceived partner responsiveness relates to maternal psychological controlling and autonomy supportive parenting practices, which in turn relates to adolescent adjustment. In addition, this dissertation differs from the previous research in terms of considering basic needs as a mediating mechanism in association between interparental relationship dimensions and parenting as well as in relation between parenting and adolescent outcomes. The results of three studies show the importance of (1) measuring both positive and negative aspects of interparental relationship, (2) measuring both psychological control and autonomy support as indicators of maternal parenting, (3) implementing self-determination theory over spillover hypothesis to further explain how and why parenting difficulties (psychologically controlling and less autonomy supportive) serve as mechanisms that mediate the link between interparental relations and adolescent emotional problems, and (4) measuring both positive and negative indicators of adolescent adjustment (i.e., aggression, loneliness, depression, and life satisfaction).

From the theoretical perspective, this dissertation undertook a multifaceted and dynamic approach and examined, longitudinally, the joint role of the interparental conflict,

perceived partner responsiveness, maternal psychological control, maternal autonomy support, and basic need satisfaction on adolescents' adjustment. Prior studies have extensively considered some of these outcomes (i.e. aggression, loneliness, depression, and life satisfaction) as a consequence of interparental conflict (or perceived partner responsiveness), maternal psychologically controlling and autonomy supportive parenting, and basic need satisfaction but only few have concurrently examined the mediating mechanism between these mentioned variables. Even fewer have taken into account using the multiple informants, namely mother and adolescents, in order to assess the various constructs under investigation, and examining longitudinally these proposed interactions from various informants. None of them has been sampled Turkish adolescents.

From the methodological standpoint, this dissertation included three studies. Unlike most studies which examine the relation between mentioned constructs cross-sectionally, Study 1 and Study 2 were longitudinal. Unlike most studies which examine the changes of a variable between two points in time, the diary design of Study 3 allowed to capture the patterns of fluctuations of mothers' interparental conflict, perceived partner responsiveness, basic need satisfaction, and autonomy support.

From the statistical analysis viewpoint, this dissertation employed some of the most rigorous analytical techniques to capture the interdependencies of the various constructs and their changes across time. Specifically, in Study 1, structural equation modeling was used to examine the mediating role of psychologically controlling parenting in relation between interparental conflict and adolescent adjustment (i.e., relational aggression and loneliness). Moreover, in Study 2, path analysis was used to assess the relation between interparental conflict and adolescent adjustment (i.e., depressive feelings and life satisfaction) by means of maternal autonomy support and adolescent's need frustration. Furthermore, in Study 3, a multilevel model was used to examine the week-to-week associations among interparental conflict, perceived partner responsiveness, mother's need satisfaction, and maternal autonomy support. Lastly, the role of gender was considered in all studies. Therefore, it was either considered as a moderator (Study 1) or a significant predictor (i.e., Study 2 and Study 3) so the effect of gender was considered

while examining the models. Moreover, a test of group(s) invariance (across gender) was conducted to show gender variances among the studied paths (Study 2).

From the practical perspective, this dissertation underlined that both conflictual and responsive relationships may be transferred from the interparental subsystem to the parent-child subsystem, with its obvious implications on adolescent's adjustment. Specifically, the findings derived from this dissertation may help to delineate the specific processes underlying this transference. More specifically, these findings may inform the parents, clinicians, and family therapists about how interparental conflict (or perceived partner responsiveness) might lead to psychologically controlling (or autonomy supportive) parenting style which in turn might lead to maladjustment (or adjustment) of the adolescents. In addition, this dissertation may also inform the parents about how their psychologically controlling (or autonomy supportive) parenting style might alter according to satisfaction of their basic psychological needs and how adolescent's adjustment might alter according to satisfaction of their own basic psychological needs. In this regard, this dissertation may suggest a future intervention program that aim to minimize the adjustment problems of Turkish adolescents by intervening on conflict (or supporting partner responsiveness) between parents which is assumed to facilitate the functional parenting strategies and satisfaction of the basic needs of both parents and adolescents.

Lastly, future research may (1) examine not only destructive but also constructive dimension of conflict as previous research shows the differential effects of constructive and destructive conflicts on children's adjustment, (2) examine interparental conflict construct with more comprehensive measures to capture its multidimensional nature, (3) examine constructive conflict and perceived partner responsiveness in the same model to see the unique associations with their antecedents and outcomes, (4) examine both parenting dimensions (psychologically controlling and autonomy supportive) at the same time within a study to see the unique paths among these dimensions, their antecedents as well as their outcomes, (5) consider the further mother- or adolescent-related moderating mechanisms among interparental relations and mother's psychological needs as well as parenting practices and adolescent's psychological needs, (6) examine these hypothesized

relations more than two points in time to see curvilinear, quadratic, or cubic trends, and (7) consider not only mothers and adolescents but also fathers and siblings reports to combine information from more sources to be able to understand the dynamics in the family system, and hence to test the hypothesized associations in a more robust way.

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APPENDICES

Appendix 1. Ethics Commission Form



T.C.
HACETTEPE ÜNİVERSİTESİ
Rektörlük

Sayı : 35853172/ 433-515

01 Mart 2016

SOSYAL BİLİMLER ENSTİTÜSÜ MÜDÜRLÜĞÜNE

Enstitünüz Psikoloji Anabilim Dalı Öğretim Üyelerinden **Prof. Dr. Zehra UÇANOK** danışmanlığında **Arş. Gör. Aylin KOÇAK** tarafından yürütülen “Evlilik Çatışması ve Ergenin Uyumu: Psikolojik Kontrolün ve Temel İhtiyaç Tatmininin Aracı Rolü” başlıklı tez çalışması, Üniversitemiz Senatosu Etik Komisyonunun **23 Şubat 2016** tarihinde yapmış olduğu toplantıda incelenmiş olup, etik açıdan uygun bulunmuştur.

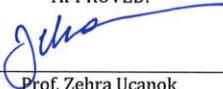
Bilgilerinizi ve gereğini rica ederim.


Prof. Dr. A. Haluk ÖZEN
Rektör

HACETTEPE ÜNİVERSİTESİ
Sosyal Bilimler Enstitüsü
Tarih: 02.03.2016
Sayı: 1518/.....

Handwritten signature: Zehra Uçanok

Appendix 2. Originality Report

	HACETTEPE UNIVERSITY GRADUATE SCHOOL OF SOCIAL SCIENCES Ph.D. DISSERTATION ORIGINALITY REPORT
HACETTEPE UNIVERSITY GRADUATE SCHOOL OF SOCIAL SCIENCES PSYCHOLOGY DEPARTMENT	
Date: 19/07/2019	
<p>Thesis Title: Interparental Relationship and Adolescent Adjustment: The Mediating Roles of Psychological Control, Autonomy Support, and Basic Psychological Needs</p> <p>According to the originality report obtained by myself and my thesis advisor by using the Turnitin plagiarism detection software and by applying the filtering options checked below on 19/07/2019 for the total of 110 pages including the a) Title Page, b) Introduction, c) Main Chapters, and d) Conclusion sections of my thesis entitled as above, the similarity index of my thesis is 4 %.</p> <p>Filtering options applied:</p> <ol style="list-style-type: none"> 1. <input checked="" type="checkbox"/> Approval and Declaration sections excluded 2. <input checked="" type="checkbox"/> Bibliography/Works Cited excluded 3. <input checked="" type="checkbox"/> Quotes excluded 4. <input type="checkbox"/> Quotes included 5. <input checked="" type="checkbox"/> Match size up to 5 words excluded <p>I declare that I have carefully read Hacettepe University Graduate School of Social Sciences Guidelines for Obtaining and Using Thesis Originality Reports; that according to the maximum similarity index values specified in the Guidelines, my thesis does not include any form of plagiarism; that in any future detection of possible infringement of the regulations I accept all legal responsibility; and that all the information I have provided is correct to the best of my knowledge.</p> <p>I respectfully submit this for approval.</p> <div style="text-align: right;">  19.07.2019 </div> <p>Name Surname: Aylin Koçak</p> <p>Student No: N11223079</p> <p>Department: Psychology</p> <p>Program: Developmental Psychology</p> <p>Status: <input type="checkbox"/> Ph.D. <input checked="" type="checkbox"/> Combined MA/ Ph.D.</p>	
<u>ADVISOR APPROVAL</u>	
<p>APPROVED.</p>  Prof. Zehra Uçanok	



HACETTEPE ÜNİVERSİTESİ
SOSYAL BİLİMLER ENSTİTÜSÜ
DOKTORA TEZ ÇALIŞMASI ORJİNALLİK RAPORU

HACETTEPE ÜNİVERSİTESİ
SOSYAL BİLİMLER ENSTİTÜSÜ
PSİKOLOJİ ANABİLİM DALI BAŞKANLIĞINA

Tarih: 19/07/2019

Tez Başlığı: Eşler Arası İlişki ve Ergenin Uyumu: Psikolojik Kontrol, Özerklik Desteği ve Temel Psikolojik İhtiyaçların Aracı Rolü

Yukarıda başlığı gösterilen tez çalışmanın a) Kapak sayfası, b) Giriş, c) Ana bölümler ve d) Sonuç kısımlarından oluşan toplam 110 sayfalık kısmına ilişkin, 19/07/2019 tarihinde şahsım ve tez danışmanım tarafından Turnitin adlı intihal tespit programından aşağıda işaretlenmiş filtrelemeler uygulanarak alınmış olan orijinallik raporuna göre, tezimin benzerlik oranı % 4 'tür.

Uygulanan filtrelemeler:

- 1- Kabul/Onay ve Bildirim sayfaları hariç
- 2- Kaynakça hariç
- 3- Alıntılar hariç
- 4- Alıntılar dâhil
- 5- 5 kelimedenden daha az örtüşme içeren metin kısımları hariç

Hacettepe Üniversitesi Sosyal Bilimler Enstitüsü Tez Çalışması Orijinallik Raporu Alınması ve Kullanılması Uygulama Esasları'nı inceledim ve bu Uygulama Esasları'nda belirtilen azami benzerlik oranlarına göre tez çalışmamın herhangi bir intihal içermediğini; aksinin tespit edileceği muhtemel durumda doğabilecek her türlü hukuki sorumluluğu kabul ettiğimi ve yukarıda vermiş olduğum bilgilerin doğru olduğunu beyan ederim.

Gereğini saygılarımla arz ederim.

Aylin Koçak
19.07.2019

Adı Soyadı: Aylin Koçak
Öğrenci No: N11223079
Anabilim Dalı: Psikoloji
Programı: Gelişim Psikolojisi
Statüsü: Doktora Bütünleşik Dr.

DANIŞMAN ONAYI

UYGUNDUR.

Zehra Uçanok

Prof. Dr. Zehra Uçanok