

Need Satisfaction as a Mediator of Associations between Interparental Relationship Dimensions and Autonomy Supportive Parenting: A Weekly Diary Study

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Guided by the self-determination theory, this weekly diary study tested a process model in which week-to-week mother-reported interparental conflict and perceived partner responsiveness were associated with maternal autonomy support by means of maternal psychological need satisfaction. During six consecutive weeks, 258 mothers ($M_{age} = 41.71$ years) and their 157 adolescents (51.4% females, $M_{age} = 14.92$ years) from Turkey provided weekly reports of the study variables via an online survey. Multilevel analyses showed that maternal 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 maternal and adolescent reports of maternal autonomy support. Further, these week-to-week associations were partly moderated by maternal perfectionism. The results underscore the dynamic nature of the intra-family relationships, the important role of particular conditions in which mothers may become more autonomy supportive, and the necessity to consider mother's personal characteristics while examining these dynamics.

Keywords: Interparental Conflict; Perceived Partner Responsiveness; Spillover Hypothesis; Self-Determination Theory; Maternal Autonomy Support

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Research has shown that both negative and positive indicators of the interparental relationship are associated with the quality of parenting practices (McCoy, George, Cummings, & Davies, 2013) and child adjustment (Buehler & Gerard, 2002). Interparental conflict, as a negative indicator of the quality of family life, and perceived partner

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responsiveness, as a positive indicator, have been found to relate to partners' well-being, parenting quality, and child adjustment (Buehler & Gerard, 2002; Millings, Walsh, Hepper, & O'Brien, 2013; Selcuk, Gunaydin, Ong, & Almeida, 2016). Further, although studies have documented relations among negative and positive interparental dimensions and maternal parenting practices (Engfer, 1988), the intervening mechanisms explaining this relation still deserve attention. Guided by the self-determination theory (Deci & Ryan, 2000), we examined whether week-to-week variation in maternal need satisfaction served as an intervening mechanism accounting for the association between interparental relationship dimensions and maternal autonomy support. We did so because most of the prior studies have examined these associations by looking at between-person differences in family experiences aggregated over lengthier (e.g., months, years) periods 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 these are linked with maternal practices (for few notable exceptions see Gadassi et al., 2016; Sears, Repetti, Reynolds, Robles, & Krull, 2016).

Interparental Relationship Dimensions and Maternal Autonomy Support

According to the spillover hypothesis, unresolved anger and discord from interparental conflict is carried over to child-rearing contexts and ultimately undermines parenting practices (Engfer, 1988). Through this spillover process, interparental conflict is proposed to reduce maternal sensitivity to children's needs and autonomy supportive behaviors toward children (Schoppe-Sullivan, Schermerhorn, & Cummings, 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 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, Knee, Canevello, & Lonsbary, 2007) which, in turn, may interfere with autonomy supportive parenting (e.g., Costa, Gugliandolo, Barberis, Cuzzocrea, & Liga, 2018). Although people have an inherent tendency to maintain an optimal level of functioning, certain conditions and strategies may foster fulfillment of these needs (Deci et al., 2001). According to self-determination theory, autonomy supportive parenting is one important dimension of a need-supportive parenting style (Costa et al., 2018). 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 (Deci et al., 2001). The frustration of one need is posited to undermine the fulfillment of the other needs and collectively results 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 to 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. (2019) 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 their partner can satisfy mothers' 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). Indirect support for the need fulfilling role of perceived partner responsiveness comes from studies showing that it predicts increases in feelings of autonomy, environmental mastery, self-acceptance, growth, and purpose in life both cross-sectionally and longitudinally over a decade (Selcuk et al., 2016; Tasfiliz et al., 2018). These indicators of well-being are shown to be very highly correlated with measures of autonomy and competence needs satisfaction (e.g., Diener et al., 2010). Therefore, theory and extant empirical evidence both suggest that perceived partner responsiveness may predict greater maternal autonomy support through greater need satisfaction. However, existing research on perceived partner responsiveness as an antecedent 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 (Koçak, Mouratidis, Sayıl, Kindap-Tepe, & Uçanok, 2017; Sayıl, Kindap, & Kumru, 2019), there is still a dearth of knowledge about how certain intervening mechanisms such as need satisfaction may explain the associations between quality of interparental relationships and maternal autonomy support. Examining these associations in a non-Western cultural context such as Turkey where interdependent and close family relationships are encouraged by giving priority to the role of being a caring parent over the role of being an attentive spouse (Sayıl & Kindap, 2010; Sunar, 2002) would provide further evidence about the generalizability of how conflict and responsiveness in the interparental family subsystem may associate to parenting behaviors through need satisfaction.

Moderating Role of Mother's Perfectionism

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., 2018) 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, Luyten, Duriez, & Goossens, 2005b). 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 et al., 2005b). 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 et al., 2005a). In sum, studies across different samples and cultural contexts documented that maternal perfectionism is an individual difference factor predicting maternal practices, including autonomy support. These findings point (albeit indirectly) to perfectionism as a potential candidate to explain variation in the within-person association between maternal need fulfillment and autonomy supportive parenting. Thus, a pertinent question is whether the links of interparental relationship quality and maternal satisfaction of psychological needs with maternal autonomy support may vary as a function of differences in maternal personal standards and organization or evaluative concerns. Knowing whether these within-person relations are moderated by maternal perfectionistic attitudes may help us design more effective interventions in the future.

The Present Study

In this six-week diary study, we investigated week-to-week relations among interparental conflict, perceived partner responsiveness, and maternal autonomy support and the mediating role of maternal need satisfaction in these associations. Our study builds on the existing literature in some important and novel ways. First, by undertaking a more dynamic approach, we studied how perceived quality of interparental relationships (i.e., interparental conflict and partner responsiveness) relates to maternal practices (i.e., autonomy support). In that way, we tried to build on longitudinal studies that have examined how family relationships evolve across time (Gadassi et al., 2016; Sears et al., 2016). We opted for a week-to-week rather than day-to-day or hourly examination of these relations to provide ample time for mother-partner and mother-child interactions show variation across time. Second, we tested whether theoretically relevant psychological processes (i.e., need satisfaction) could explain the associations between maternal perceived quality of interparental relationship dimensions and maternal autonomy support. Third, in contrast to relying on single-rater measures of maternal autonomy support commonly employed in previous diary studies (for one of the few exceptions see van der Kaap-Deeder, Vansteenkiste, Soenens, & Mabbe, 2016), we assessed both maternal and adolescent reports of maternal autonomy support to reduce common-method variance. Our 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 adjustment (e.g., Soenens et al., 2005b). In addition, focusing on both conflict and responsiveness in the same study allowed us to more comprehensively examine the interparental “strengths” and “strains” in the prediction of autonomy support (Slatcher & Selcuk, 2017). Finally, we investigated whether the abovementioned mediational pathways was moderated by maternal perfectionism, a critical individual difference factor in understanding maternal need satisfaction and autonomy support in self-determination theory (Soenens et al., 2005a; Soenens & Vansteenkiste, 2010).

Given that most of the extant studies have been conducted mostly in Western cultural contexts (for one of the few exceptions see Bradford et al., 2003), our focus on examining the interplay between interparental functioning and maternal autonomy support in a

non-Western (i.e., Turkish) cultural context enables us to test the generalizability of previous findings from the spillover and self-determination theories. We focused on maternal autonomy support practices because mothers (compared to fathers) tend to be more involved in the lives of their children in both Western and non-Western samples (e.g., Grolnick, Price, Beiswenger, & Sauck, 2007; Sayıl & Kindap, 2010). Our decision to examine our research questions in families with adolescents was based on prior work underscoring the developmental salience of maternal autonomy support and its implications for offspring adjustment during adolescence (Silk, Morris, Kanaya, & Steinberg, 2003).

We formulated the following hypotheses: First, based on the spillover and the self-determination theories, we 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, we anticipated that high evaluative concerns would attenuate the within-person association between need satisfaction and maternal autonomy support, and as a result, the indirect association of interparental conflict and perceived responsiveness with autonomy support. Given that prior research did not examine the role of perfectionism in predicting the within-person slope between need satisfaction and autonomy support, we extrapolated our hypothesis from prior work showing between-person associations between maladaptive perfectionism and maternal autonomy support (e.g., Soenens et al., 2005b). Specifically, we reasoned that the burden of high evaluative concerns may interfere with realizing the benefits of needs satisfaction for providing autonomy support. Given that evaluative concerns emerged as a consistent predictor of parental practices and autonomy support, we primarily focused on this dimension. However, we also explored whether personal standards and organization would also assume a similar moderating role.

METHOD

Participants

Participants were 258 married mothers ($M_{\text{age}} = 41.71$, $SD = 4.78$; age range: 30 to 57 years), who were living together with their husband and their adolescent children who were between the ages of 12 and 18 years old. All 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). They were from different regions of Turkey, and most of them were living in large urban cities ($n = 211$; 81.9%). Sixty-one 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%) as below, and 40 (15.6%) as above middle class. Because several mothers refused to include their children in the study, the number of adolescent participants relative to mother participants was somewhat smaller ($N = 157$; 51.4% female, $M_{\text{age}} = 14.92$, $SD = 1.72$; age range: 12 to 18 years; the mean age of adolescents for the full sample ($N = 258$) was 14.98 ($SD = 1.68$)).

Procedure

Before data collection, approval was obtained from the research ethics board of the first author's 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 first author's university. Students were asked to approach five intact families with at least one adolescent child between 12 and 18 years old. Volunteer students

were informed by the first author in a one-hour session about the data collection procedures. In acting as intermediaries between the first author and the participants, the primary responsibilities of the student volunteers were to address respondents' questions about the study and data collection process and to remind them to complete the questionnaires on time. The questionnaires were administered online through *surveyey.com*. Volunteer students sent the survey link to the families they recruited. To increase participation as much as possible, surveys were sent to families on a weekday that best fit the individual schedules of each family. Diary completion rates were very high, ranging from 91% to 97% across six weeks for mothers, and from 86% to 100% across five weeks for adolescents. All respondents were assured 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 a diary phase. In the pre-diary phase, a questionnaire packet including the informed consent form, 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. All scales were presented in Turkish. 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 completed one week after the end of data collection period for mothers.

Measures

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 (6-item; e.g., "I try to be an organized person"), personal standards (3-item; e.g., "It is important to me that I be thoroughly competent in everything I do"), concerns over mistakes (8-item; e.g., "If I do not do as well as other people, it means I am an inferior human being"), and doubts about action (4-item; 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 one factor and the items of concerns over mistakes and doubts about action comprising the other. The two factors explained a total of 73% of the variance. In light of this evidence, we aggregated the items in each factor to create two subscales: personal standards and organization ($\alpha = 0.76$) and evaluative concerns ($\alpha = 0.84$).

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 six-item scale was 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 participants (Geldhof, Preacher, & Zyphur,

2014), the internal consistency of the scale was 0.85 at the between-person level and 0.63 at the within-person level.

Week-to-week perceived partner responsiveness

Mothers answered three items from the Turkish translation of the Perceived Partner Responsiveness Scale (Reis, 2003; Tasfiliz, Sagel Cetiner, & Selcuk, in press) on a seven-point Likert-type scale (1 = “Totally disagree” to 7 = “Totally agree”). The items were adapted to assess weekly perceptions of responsiveness (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 0.97 for between-person level and 0.84 for within-person level.

Week-to-week psychological need satisfaction

We took six items from the Basic Psychological Need Satisfaction Scale (Chen et al., 2015). Two independent teams of Turkish scholars who were fluent in English translated and back translated the scale according to the procedures described by Van de Vijver and Hambleton (1996). In a pilot study, the scale was found to work properly (Mouratidis et al., 2018). Mothers were asked to what extent they satisfied their need for autonomy (two items; e.g., “Last week, I felt that my decisions reflect what I really want”), competence (two items; e.g., “Last week, I felt capable at what I did”), and relatedness (two items e.g., “Last week, I felt that the people I care about also care about me”) at the previous week. Given that all three needs are typically positively correlated and previous studies usually combined them into a composite (e.g., Deci et al., 2001), we created a composite score of psychological need satisfaction. 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 0.90 for between-person level and 0.75 for within-person level.

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 et al., 2007), we asked adolescents to what extent their mothers provided autonomy support (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 0.97 for between-person level and 0.78 for within-person level for the mother scale and 0.94 for between-person level and 0.73 for within-person level for the adolescent scale.

Plan of Analyses

We used multilevel analyses to test our 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, we tested a single model 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 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, we examined the unconditional (i.e., no predictor) model to determine the degree of variance at the within-person and the between-person levels. Next, we entered the within-person predictors 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. Direct paths from interparental conflict and perceived partner responsiveness to autonomy support were also estimated (see Figure 1). Then, in the final step, we included the grand-mean centered between-person predictors of mother’s perfectionistic attitudes (i.e., evaluative concerns and personal standards and organization) 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 enabled us to examine how the variance was partitioned into within- and between-person levels in the absence of any predictors. All model equations were constructed and estimated using the Mplus Software (Muthén, 2012). For instance, for week-to-week maternal provision of autonomy support, at the intrapersonal level, the equation was as follows:

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

where AS_{ij} referred to autonomy support in week i being reported by mother (or adolescent) j , β_{0j} referred to the intercept of autonomy support for mother j , β_{1j} referred to the

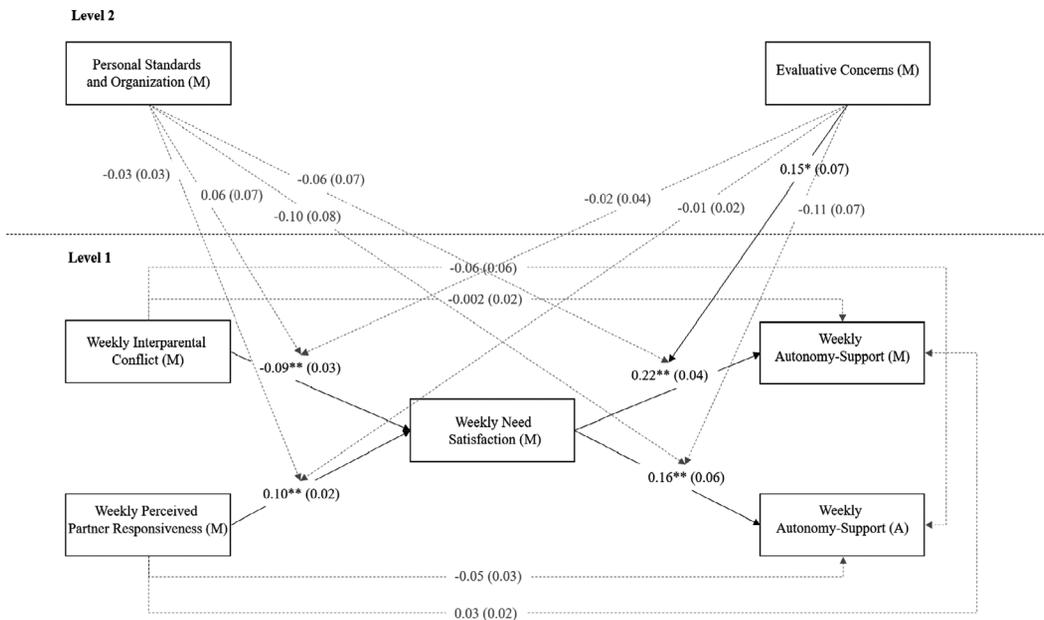


FIGURE 1. The Multilevel Model Showing the Mediating Role of Maternal Need Satisfaction in Relation of Interparental Conflict and Perceived Partner Responsiveness to Maternal Autonomy Support.

Note. Coefficients shown are unstandardized path coefficients with standard errors within the parentheses; “M” stands for the mothers which includes 252 mothers (1,445 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 gray lines represent nonsignificant parameters. * $p < .05$. ** $p < .01$.

association between need satisfaction and autonomy support, and r_{ij} referred to the residual (i.e., error) for week i for mother j .

At the interpersonal level, the model was as follows:

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

$$\beta_{1j} = \gamma_{10} + \gamma_{11}(\text{PS}) + \gamma_{12}(\text{EC}) + u_{1j}.$$

where β_{0j} (i.e., the intercept for mother j) and β_{1j} (i.e., the association between need satisfaction and autonomy support for mother j) were both estimated as a function of personal standards (PS) and evaluative concerns (EC). γ_{00} and γ_{10} corresponded to the average intercept and slope (i.e., mean of autonomy support, and the association between need satisfaction and autonomy support in the entire sample). γ_{01} and γ_{02} reflected, respectively, the direct associations of personal standards (PS) and evaluative concerns (EC) with autonomy support and γ_{11} and γ_{12} reflected, respectively, whether the link between weekly needs satisfaction and autonomy support were moderated by PS and EC. Finally, u_{0j} and u_{1j} corresponded to the error (residual) between the estimated and the observed scores for mother j .

Similarly, the equations that estimated weekly need satisfaction (NS) as a function of interparental conflict (IPC) and perceived partner responsiveness (PPR) was constructed at the intrapersonal level as follows:

$$\text{NS}_{ij} = \beta_{0j} + \beta_{1j}(\text{IPC}) + \beta_{2j}(\text{PPR}) + r_{ij}.$$

and at the interpersonal level as follows:

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

$$\beta_{1j} = \gamma_{10} + \gamma_{11}(\text{PS}) + \gamma_{12}(\text{EC}) + u_{1j}.$$

$$\beta_{2j} = \gamma_{20} + \gamma_{21}(\text{PS}) + \gamma_{22}(\text{EC}) + u_{2j}.$$

RESULTS

Little's MCAR test showed that mothers whose adolescents participated in the study vs. mothers whose adolescents did not participate did not differ in terms of trait-level (i.e., evaluative concerns and personal standards and organization), week-level (i.e., interparental conflict, perceived partner responsiveness, need satisfaction, and mother-reported autonomy support), or sociodemographic measures (i.e., gender, age, mother's education level, and perceived socioeconomic status) ($\chi^2(30) = 39.30, p = .119$). Individual t tests also showed that there were no significant differences between these two groups (t s (250–256) ranged from -0.66 to 1.07 , all p s $> .16$) in evaluative concerns ($M = 2.39, SD = 0.80$ vs. $M = 2.32, SD = 0.74$, respectively), personal standards and organization ($M = 4.29, SD = 0.56$ vs. $M = 4.29, SD = 0.57$, respectively), week-to-week interparental conflict ($M = 2.24, SD = 0.71$ vs. $M = 2.27, SD = 0.67$, respectively), week-to-week perceived partner responsiveness ($M = 4.91, SD = 1.28$ vs. $M = 4.94, SD = 1.31$, respectively), week-to-week need satisfaction ($M = 4.07, SD = 0.50$ vs. $M = 4.09, SD = 0.53$, respectively), week-to-week mother-reported autonomy support ($M = 4.37, SD = 0.52$ vs. $M = 4.39, SD = 0.55$, respectively), mother's education level ($M = 3.87, SD = 1.43$ vs. $M = 4.07, SD = 1.58$, respectively), perceived socioeconomic status ($M = 2.99, SD = 0.66$ vs. $M = 2.95, SD = 0.77$, respectively), and adolescent age ($M = 15.01, SD = 1.71$; $M = 14.93, SD = 1.63$, respectively). Finally, there were no differences between the two groups in terms of adolescent gender ($\chi^2(1) = 0.007, p = .935$).

Table 1 shows descriptive statistics, within-person and between-person correlations of weekly 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 substantial variability across individuals (ranging from 47% to 57%). Lastly, demographic variables such as gender, age, mother's education level, and perceived socioeconomic status were not correlated with any of the other variables of the study and the main findings remained virtually the same, even after we controlled for them. Therefore, we did not add these demographics to our final model for the sake of parsimony.

Main Analyses

Week-to-week relations

We examined whether need satisfaction mediated week-to-week relations of interparental conflict and perceived partner responsiveness to mother-reported autonomy support and adolescent-reported autonomy support with a single multilevel model. As shown in Figure 1, week-to-week interparental conflict was negatively related to week-to-week need satisfaction ($B = -0.09$, $SE = 0.03$, $p < .001$, 95% CI $[-0.142, -0.043]$) and the opposite was true for perceived partner responsiveness ($B = 0.10$, $SE = 0.02$, $p < .001$, 95% CI $[0.073, 0.136]$). In turn, week-to-week need satisfaction was positively related to both mother-reported ($B = 0.22$, $SE = 0.04$, $p < .001$, 95% CI $[0.147, 0.291]$) and adolescent-reported ($B = 0.16$, $SE = 0.06$, $p = .007$, 95% CI $[0.043, 0.269]$) autonomy support. Lastly, in considering the direct paths among interparental conflict and perceived partner responsiveness and mother- and adolescent-reported autonomy support, we 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 $[0.000, 0.057]$).

Inspection of the variance part of the model showed that 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 $[-0.026, 0.075]$), and the same was true for the relation between need satisfaction and mother-reported autonomy support ($B = 0.00$,

TABLE 1

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

Variables	1	2	3	4	5	6	7
Between-person variables							
1. Personal standards and organization (M)	—	0.11	-0.13	0.07	0.33**	0.19*	0.04
2. Evaluative concerns (M)		—	0.14*	-0.18*	-0.24**	-0.25**	-0.06
Within-person variables							
3. Interparental conflict (M)			—	-0.44**	-0.28**	-0.16*	-0.17
4. Perceived partner responsiveness (M)				—	0.63**	0.41**	0.29**
5. Need satisfaction (M)					—	0.59**	0.27**
6. Maternal autonomy support (M)						—	0.39**
7. Maternal autonomy support (A)							—
ICC							
<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. A = adolescent-reported; M = mother-reported.

The correlations for mothers are based on 1,445 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.

* $p < .05$.

** $p < .01$ (two-tailed).

$SE = 0.002$, $p = .974$, 95% CI $[-0.005, 0.005]$). 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 $[0.004, 0.025]$); and (2) need satisfaction and adolescent-reported autonomy support ($B = 0.01$, $SE = 0.01$, $p = .025$, 95% CI $[0.002, 0.023]$). 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.

Moreover, a test of indirect effects over the fixed slopes showed that interparental conflict predicted mother-reported autonomy support ($\beta = -0.03$, $SE = 0.01$, $p = .008$, 95% CI $[-0.043, -0.007]$) and perceived partner responsiveness predicted both mother-reported ($\beta = 0.03$, $SE = 0.01$, $p < .001$, 95% CI $[0.012, 0.040]$) and adolescent-reported ($\beta = 0.02$, $SE = 0.01$, $p = .048$, 95% CI $[0.000, 0.037]$) 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.

Cross-level interactions

We investigated whether evaluative concerns and personal standards and organization moderated 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. As shown in Figure 1, personal standards and organization did not moderate any of the associations. However, evaluative concerns moderated week-to-week relation between need satisfaction and mother-reported autonomy support ($B = 0.15$, $SE = 0.07$, $p = .020$, 95% CI $[0.023, 0.278]$). Further, a test of simple slopes revealed that, contrary to what we hypothesized, 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 ($B = 0.13$, $SE = 0.05$, $z = 2.29$, $p = .022$).

Lagged mediational analyses

To examine the robustness of our findings, we also ran a more conservative test where (1) current week (W) mother-reported (or adolescent-reported) autonomy support was predicted by previous week (W-1) maternal need satisfaction, after controlling for previous week (W-1) mother-reported (or adolescent-reported) autonomy support; and (2) previous (W-1) need satisfaction was predicted by its previous week (W-2) interparental conflict and responsiveness (after controlling for W-2 need satisfaction). The results showed that when we controlled the effect of W-2 need satisfaction, W-1 need satisfaction was not predicted either by W-2 interparental conflict ($B = 0.05$, $SE = 0.04$, $p = .191$, 95% CI $[-0.025, 0.124]$) or W-2 perceived partner responsiveness ($B = 0.03$, $SE = 0.02$, $p = .143$, 95% CI $[-0.010, 0.067]$). Likewise, when we controlled for W-1 autonomy support, the relation between W-1 need satisfaction and W autonomy support was statistically nonsignificant (for mother-reported: $B = 0.10$, $SE = 0.07$, $p = .155$, 95% CI $[-0.039, 0.244]$; for adolescent-reported: $B = -0.004$, $SE = 0.08$, $p = .959$, 95% CI $[-0.154, 0.146]$).

In a less conservative test, where we examined the same relations but without controlling for previous week effects, we 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 $[-0.114, 0.005]$) or W-2 perceived partner responsiveness ($B = -0.02$, $SE = 0.02$, $p = .245$, 95% CI $[-0.057, 0.015]$). Likewise, the relation between W-1 need satisfaction and W autonomy support was not significant (for mother-reported: $B = -0.03$, $SE = 0.06$, $p = .668$, 95% CI $[-0.138, 0.088]$; for adolescent-reported: $B = 0.04$, $SE = 0.05$, $p = .498$, 95% CI $[-0.068, 0.140]$).

Indirect associations for moderated mediation

We tested moderated mediation for our multilevel mother model with the interactive tool of Selig and Preacher (2008) to estimate confidence intervals for indirect associations. The results showed that 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) (95% CI $[-0.058, -0.009]$), moderate (i.e., around the mean) (95% CI $[-0.038, -0.006]$), and low (i.e., -1 SD below the mean) evaluative concerns (95% CI $[-0.025, -0.002]$). Furthermore, we 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) (95% CI $[0.017, 0.056]$), moderate (i.e., around the mean) (95% CI $[0.012, 0.037]$), and low (i.e., -1 SD below the mean) evaluative concerns (95% CI $[0.003, 0.025]$).

Alternative mediation model

Because of the reciprocal nature of the relations between interparental conflict and need satisfaction (e.g., Patrick et al., 2007) as well as the relations between need satisfaction and maternal autonomy support (e.g., Costa, Cuzzocrea, Gugliandolo, & Larcan, 2016), we tested an alternative model in which interparental conflict and perceived partner responsiveness were predicted by maternal autonomy support (reports of both mothers and adolescents) by means of mother's need satisfaction. The results showed that week-to-week mother-reported autonomy support positively predicted week-to-week need satisfaction of mothers ($B = 0.27$, $SE = 0.05$, $p < .001$, 95% CI $[0.168, 0.373]$) but week-to-week adolescent-reported autonomy support failed to predict it ($B = 0.04$, $SE = 0.03$, $p = .214$, 95% CI $[-0.024, 0.107]$). Moreover, week-to-week need satisfaction of mothers, in turn, negatively predicted week-to-week interparental conflict ($B = -0.20$, $SE = 0.06$, $p = .001$, 95% CI $[-0.318, -0.076]$) and positively predicted week-to-week perceived partner responsiveness ($B = 0.84$, $SE = 0.12$, $p < .001$, 95% CI $[0.611, 1.061]$). When we consider the direct paths from autonomy support to interparental conflict as well as perceived partner responsiveness, we found that week-to-week mother-reported autonomy support marginally positively predicted week-to-week interparental conflict ($B = -0.18$, $SE = 0.09$, $p = .051$, 95% CI $[-0.353, 0.001]$).

DISCUSSION

In line with our hypotheses, week-to-week interparental conflict was negatively and perceived partner responsiveness was positively related to need satisfaction. In turn, need satisfaction 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), our 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, our study utilized self-determination theory as a framework 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 (e.g., Patrick et al., 2007; Reis et al., 2000), our results showed that interparental conflict was associated with maternal difficulties in satisfying basic 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 responsive family contexts experienced greater maternal satisfaction of their basic psychological needs, as characterized by 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. Our 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., 2018; van der Kaap-Deeder et al., 2019). Taken together, these findings help elucidate the nature of relationships between interparental and mother-child subsystems. When self-determination theory is interpreted in the framework of family systems theory (Sturge-Apple, Davies, Winter, Cummings, & Schermerhorn, 2008), our 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, we have found that 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. Although maternal need satisfaction mediated the relation between interparental conflict and maternal autonomy support as well as the relation between perceived partner responsiveness and maternal autonomy support across all levels of evaluative concerns, the indirect association was stronger for mothers who were high on evaluative concerns. Therefore, one possible explanation for this unexpected finding is that mothers with high evaluative concerns may have to rely more heavily on their own spousal (i.e., interparental conflict and perceived partner responsiveness) and individual (i.e., need satisfaction) experiences to bolster autonomy supportive parenting practices with their children. These mothers may feel that they have to have a less conflictual or more responsive spousal relationship and satisfy their own needs to be able to perceive themselves as an autonomy supportive parent. For example, it is possible that interparental conflict and perceived partner responsiveness as well as need satisfaction are more critical precursors of autonomy supportive parenting for mothers with high evaluative concerns because they tend to experience more contingent self-worth (Soenens et al., 2005a). Of course, this is a speculative explanation that awaits further testing especially given that we initially predicted the opposite pattern—that is, the association between maternal needs satisfaction and maternal autonomy support being stronger for mothers with low (vs. high) evaluative concerns.

Our 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 father-mother and parent-child subsystems. Despite some evidence suggesting that parent-child subsystem is highly valued compared to the father-mother subsystem in Turkish culture (Sunar, 2002), the results supported the generalizability of

hypothesized processes derived from the spillover and self-determination theories. Thus, the pattern of findings is important in elucidating family processes in a non-Western sample that are generally under-represented in the family psychology literature.

Nevertheless, it should be noted that interparental conflict and responsiveness failed to predict next-week need satisfaction in lagged analyses and the same was true for the relation between need satisfaction and next-week autonomy support. These null findings call for caution in interpreting any causal chain from interparental conflict and perceived responsiveness to maternal autonomy support by means of needs satisfaction. It is possible that the statistically significant relations observed within the same week may be attributed to a halo effect (partly because of the conceptual overlap among some concepts, such as between perceived responsiveness and need satisfaction). It is equally possible, however, that these associations reflect theoretically meaningful and practically important patterns, but the lack of lagged effects is due to the longer time period between the assessments. After all, several events in a family's daily life may occur within a week that could explain why the effect of interparental relationship quality does not carry to maternal practices the following week. In addition, assuming the presence of a reciprocal relation between quality of interparental relationships and maternal autonomy support (where more interparental conflict will predict less autonomy support which in turn will predict poorer quality of relationships between parents), the presence of time-lagged effects would imply a monotonic, perpetual decrease in maternal autonomy support. Such a constant decrease however sounds rather unrealistic. Sooner or later certain family-related events will likely disrupt the trend toward one direction. Certainly, future research needs to disentangle the possible explanations contributing to the associations we observed in the current study. Such research can employ daily (rather than weekly) assessments that will tap into day-to-day dynamics of families' social environment to better evaluate the presence of lagged effects. In addition, collecting data from multiple informants (as was the case in the present study) will help remove common-method variance. Finally, given that we found statistically significant unexplained variance in weekly relations of need satisfaction with both partner responsiveness and adolescent-reported autonomy support, future research should consider the operation of third variables which could account for both of these relations.

The present study has several limitations that should be underscored. First, the correlational nature of the findings makes it impossible to disentangle the causal order of study variables. Second, although our focus 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 we utilized different informants in our 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 limitation of our 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, we relied only on mothers 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. Fifth, because our sample contained only married mothers, the results of this study may not be readily generalizable to unwed or cohabitating mothers. Finally, although we focused on autonomy supportive parenting 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 us better understand under what particular conditions mothers can become more autonomy supportive toward their children especially in an under-researched population. In this regard, self-determination theory provided a useful framework 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.

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