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**Family Obligation, Parenting, and Adolescent Outcomes
among Mexican American Families**

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Abstract

Family Obligation, Parenting, and Adolescent Outcomes among Mexican American Families

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Family obligation is considered a generally promotive factor in the development of Mexican American adolescents. However, most prior studies have focused on only adolescents' sense of family obligation. The impact of parents' sense of family obligation on adolescent outcomes is less often considered. Moreover, the mechanism through which a sense of family obligation links to adolescent outcomes in Mexican American families still remains unknown. Thus, the current study utilizes data from a two-wave longitudinal study to investigate the mediating role of parenting practices in the association between both parents' and adolescents' sense of family obligation and

adolescent outcomes. Participants were 604 Mexican American adolescents (54.3% female, $M_{\text{age.wave1}} = 12.41$ years, $SD = .97$) and their parents residing in Central Texas. Results revealed that parents with a greater sense of family obligation reported more positive parenting practices and adolescents with a stronger sense of family obligation perceived more supportive parenting practices. Supportive parenting practices were found to be significant mediators in the longitudinal connections through which both adolescents' and parents' sense of family obligation related to subsequent adolescent outcomes. There were parent gender differences: adolescents' family obligation was more strongly related to their reports of maternal (vs. paternal) parenting. The links also varied across informants for parenting: a) individuals' sense of family obligation related only to their own perceptions of parenting; and b) there were more evident associations between adolescent-reported (vs. parent-reported) parenting and adolescent outcomes. These findings will provide significant implications for future interventions and policies for promoting adolescent outcomes by shaping both parents' and adolescents' perceptions of more supportive parenting practices in Mexican American families.

Table of Contents

List of Tables.....	IX
List of Figures.....	X
Introduction.....	1
Family Obligation and Adolescent Development.....	3
The Mediating Role of Parenting Practices.....	6
Potential Moderators.....	8
Current Study.....	10
Method.....	11
Participants.....	11
Procedure.....	11
Measures.....	12
Sense of Familial Obligation.....	12
Parenting Variables.	13
Parental warmth.	13
Parental monitoring.....	13
Parental inductive reasoning.....	14
Adolescent life meaning.....	15
Adolescent resilience.....	15
Adolescent grades.....	15
Covariates.	16
Analysis Plan.....	16

Results.....	19
Descriptive information and correlation.....	19
Measurement Model of Supportive Parenting.....	19
Linking Family Obligation to Parenting Practices to Adolescent Outcomes.....	20
Direct paths.....	20
Indirect pathways from family obligation to adolescent outcomes.....	21
The Moderating Role of Parent and Adolescent Gender.....	21
Informant Effect.....	22
Sensitivity Analyses.....	23
Alternative models.....	23
Discussion.....	25
The links from family obligation to parenting practices to adolescent outcomes....	25
Parent Gender Difference and Informant Effects.....	27
Limitations and Future Directions.....	28
Conclusion.....	31
Tables.....	32
Figure.....	35
Appendix.....	36
References.....	45

List of Tables

Table 1 Descriptive statistics and correlations among study variables.....	32
Table 2 Test of indirect effects for family obligation to adolescent outcomes.....	34

List of Figures

Figure 1: Longitudinal model linking family obligation, parenting practices, and adolescent adjustment	35
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Introduction

Mexican Americans are the largest ethnic minority group in the United States (Motel & Patten, 2012). Adolescents of Mexican origin experience various developmental challenges, such as poorer academic performance, higher rates of substance use, and more depressive symptoms (Kann et al., 2014; McLaughlin, Hilt, & Nolen-Hoeksema, 2007; Telzer, Gonzales, & Fuligni, 2014). Thus, it is essential to identify promotive factors for Latino adolescent adjustment to inform better policies and interventions aiming to promote their adjustment. One important promotive factor may be family obligation (Coll et al., 1996; Stein, Gonzalez, Cupito, Kiang, & Supple, 2013).

Family obligation can be described as a set of beliefs and behaviors related to one's assistance, respect and contribution to the family (Fuligni, 2007). It is a central aspect of the Latino cultural value of *familism*, which refers to one's respect for their family and one's obligation to support their family (Fuligni, Tseng, & Lam, 1999). Family obligation values may bring closeness and support within the family and have been consistently related to more positive adolescent outcomes (Telzer, 2014). In contrast, family obligation behaviors (e.g., providing family assistance) may be stressful and burdensome (Telzer 2014; Telzer, Gonzales, & Fuligni, 2014). The current study focuses specifically on family obligation values, investigating the mechanism underlying the link from family obligation values to adolescent outcomes, and addressing several critical limitations in prior studies.

First, there is a lack of prior work directly examining mediating pathways linking family obligation values and adolescent outcomes. One potential pathway connecting family obligation values to adolescent outcomes may be parenting, according to the integrative model of parenting, which proposes that cultural values and parental beliefs shape parenting practices to influence adolescent development (Darling & Steinberg, 1993). Second, most past studies on family obligation focused on how adolescents' family obligation related to their own adjustment (Fuligni, Yip, & Tseng, 2003; Telzer & Fuligni, 2009), and how parents' endorsement of family obligation related to their parenting practices (Calzada, Tamis-LeMonda, & Yoshikawa, 2013). However, the family is an interdependent system in which family members mutually influence each other (Cox, 2003). Both parents' and adolescents' family obligation values may influence parenting practices and adolescent adjustment. Third, few studies have documented potential moderators of the relation between family obligation values and adolescent adjustment.

To fill in these gaps, the current study examines whether and under what conditions family obligation values links to adolescent adjustment (i.e., life meaning, resilience and self-reported grades) longitudinally through supportive parenting (i.e., parental monitoring, parental warmth, and inductive reasoning). We included both adolescents' own sense of family obligation and their parents' expectations regarding adolescents' family obligation – that is, how important it is that their children help, respect and contribute to the family. (We refer to this belief as parents' family obligation,

as parental expectations reflect their own values.) We explored whether the links between family obligation, parenting, and adolescent outcomes vary across parent gender, adolescent gender and across informants (i.e., parent-reported vs. adolescent-reported parenting). By identifying potential mediators and moderators of the link between family obligation and adolescent adjustment, the current study provides a more comprehensive and nuanced understanding of the role of family obligation in Mexican American adolescents' development.

Family Obligation and Adolescent Development

Mexican American families usually place great importance on family obligation (Hardway & Fuligni, 2006). Adolescents from Mexican American families internalize a sense of family obligation as a cultural belief, which in turn plays a key role in shaping their development (Fuligni & Pedersen, 2002). Most studies have demonstrated the link between family obligation and adolescent adjustment. Some of the existing literature highlights the essential benefits of family obligation in adolescent adjustment. For instance, adolescents who spend more time with their family, respect their parents and follow their parents' instructions are less likely to have depressive symptoms (Keeler, Siegel, & Alvaro, 2014) and risk behaviors (Wheeler et al., 2017), and to have higher levels of positive mood and life satisfaction (Telzer & Fuligni, 2009). Other studies have revealed that family obligation behaviors (e.g., family assistance) are considered a source of stress, and are associated with more emotional distress symptoms and poorer academic achievement in adolescents (Telzer, Gonzales, & Fuligni, 2014). Despite the negative effects of family obligation behaviors on adolescents, the value of family obligation and

the greater sense of role fulfillment originating from helping one's family have been shown to play a vital role in attenuating the negative impacts of providing family assistance (Telzer, Gonzales, & Fuligni, 2014). Such evidence suggests that family obligation may also be considered a promotive factor, especially when researchers focus on beliefs and attitudes towards family obligation. Accordingly, the current study will focus on the role of family obligation as a value, and treat this value as a promotive factor that benefits adolescent development.

Most prior studies have focused only on the association between adolescents' family obligation and their adjustment (Fuligni, Yip, & Tseng, 2003; Phinney, Ong, & Madden, 2000), neglecting the role of parents' family obligation in this link. Parents' family obligation may not only shape the way family members interact but also affect youth development (Lansford et al., 2015). For example, a prior study has demonstrated that higher maternal expectations of children's family obligation predicted more social competence, more prosocial behaviors, and fewer internalizing behavioral problems among young children (Lansford et al., 2018). However, to date, the few existing studies examining the association between parents' family obligation values and child development have focused on young children (e.g., Lansford et al., 2018). Parents continue to play an important role in adolescents' development (Moretti & Peled, 2004). To better understand the link between family obligation and adolescent outcomes, it is important to consider both parents' and adolescents' sense of family obligation simultaneously.

According to the positive developmental approach, researchers are encouraged to focus on strength-based models which promote thriving among young people (Koller, Motti-Stefanidi, Petersen, & Verma, 2017; Lerner, 2017); therefore, the current study investigates how parents' and adolescents' family obligation values relate to two important domains of adolescent well-being: psychological and academic. In the psychological domain, we focus specifically on life meaning and resilience, which are widely recognized as desirable outcomes yet are understudied in the family obligation literature. Life meaning refers to one's feeling that their life has meaning (Zika & Champberlain, 1992). It has been associated with many other positive life outcomes, such as life satisfaction and well-being (Smokowski, Reynolds & Bezruczko, 1999). A lack of life meaning has been linked to psychopathology, psychological distress, and suicide (Hjemdal, Vogel, Solem, Hagen & Stiles, 2011). Resilience refers to an individual's ability to thrive when faced with adversity (Connor & Davidson, 2003). High levels of resilience have been associated with a higher quality of life and positive coping strategies, whereas lower levels of resilience have been linked to higher anxiety, depression and stress (Zolkoski & Bullock, 2012). In the academic domain, we focus on adolescents' grades, which are an important indicator of adolescent academic performance, given Mexican American adolescents' disadvantage in academic performance relative to other ethnic groups (Roosa et al., 2012). Therefore, this study will investigate life meaning, resilience, and grades as potential well-being outcomes related to adolescent-reported family obligation. However, the mechanism in this link is

not yet well understood. Identifying mediators in these associations is crucial because it will enable the development of intervention programs focused on the mediators to promote Mexican American adolescent adjustment. One of the important mediators in the link between family obligation and adolescent adjustment is parenting.

The Mediating Role of Parenting Practices

Parenting may vary depending on the family's cultural milieu (Bornstein, 2012). Cultural contexts (e.g., cultural beliefs, traditions and behavioral norms) provide parents and children with a reference point, which shapes how parents interact with their children (Gottlieb & DeLoache, 2016). According to the integrative model of parenting (Darling & Steinberg, 1993), parental values and beliefs may shape parenting. Parents who have stronger beliefs about the importance of their children being helpful, responsible, and obedient to the family may be more supportive in their parenting practices. Indeed, parents' expectations of children in regard to family obligation mirror their own beliefs about family obligation. Parents with a stronger sense of family obligation are likely to perform more positive behaviors and attitudes that strengthen family bonds, especially for their children. Family obligation, therefore, may lead to parenting practices characterized by more warmth, closer monitoring of their children's whereabouts, communicating with children more frequently, and more attention paid to children's daily activities.

Adolescents' own sense of family obligation may also influence parenting. In an interdependent family system, parents and adolescents can mutually influence each other (Cox, 2003). According to the transactional model of development, child characteristics and behaviors can also influence parenting (Sameroff & Mackenzie, 2003). On the basis

of this tenet, then, adolescents' family obligation may promote supportive parenting. Specifically, adolescents with a greater sense of family obligation would be likely to devote a lot of time to helping the family, show their respect to elders, and strengthen their family ties. This effort on their part may encourage more positive parenting from their parents. In addition, adolescents with a greater sense of family obligation may tend to perceive parenting more positively. They may have a better understanding of their parents' efforts and the love behind their parents' attitudes and behaviors, and may perceive higher levels of parental warmth and monitoring (Milan & Wortel, 2015). However, prior studies have focused mainly on the association between mothers' cultural values and parenting (Milan & Wortel, 2015), leaving the connection between adolescents' family obligation values and parenting understudied. The current study moves beyond prior studies to examine the unique effects of mothers', fathers', and adolescents' family obligation on maternal and paternal parenting.

Parenting has been widely demonstrated to relate to adolescent outcomes. The current study assesses parenting as a latent construct indicated by three positive parenting dimensions: warmth, monitoring, and inductive reasoning. Parental warmth and parental monitoring are two critical dimensions of parenting (Taylor, Larsen-Rife, Conger, & Widaman, 2012). Inductive reasoning is considered to be a key element of effective parental communication with children, particularly in ethnic minority families (Kim & Ge, 2000). Effective communication is particularly important for minority families because it can be a vital way to help those parents and children who are at different levels

of heritage and American cultural values understand each other and provide more support and closeness within the family. Studies have also shown that lower levels of parental warmth, monitoring and inductive reasoning are related to more developmental problems in adolescents (Kim, Chen, Li, Huang, & Moon, 2009).

Taken together, parents' and adolescents' sense of family obligation may increase supportive parenting, in turn promoting positive adolescent outcomes. Although this has not been directly investigated in the prior literature, a few studies examining the mediating role of parenting on the links between general cultural orientations and adolescent outcomes have provided some initial evidence supporting this hypothesis. For example, previous research has shown that supportive parenting (e.g., parental warmth, parental monitoring and inductive reasoning) mediates the association between parent-child cultural orientation and adolescent depressive symptoms (Kim, Chen, Wang, Shen, & Orozco-Lapray, 2013).

Potential Moderators

Although family obligation is generally considered a promotive factor for family and individual adjustment, there are also some inconsistent findings. For example, some studies indicate that family obligation, and particularly family assistance, may be a source of stress that could be associated with greater emotional distress and poorer academic achievement (Telzer, Gonzales, & Fuligni, 2014). Thus, it is vital to identify potential moderators of the associations between family obligation, parenting and adolescent outcomes. The current study explores several conceptual and methodological moderators: parent gender, adolescent gender, and the informant on parenting.

First, there may be parent and adolescent gender differences in the links between family obligation, parenting, and adolescent outcomes. Mexican American mothers and fathers play different roles in their families (Chuang & Tamis-LeMonda, 2009; Palkovitz, Trask, & Adamsons, 2014). Mothers usually spend more time on childrearing and household tasks, whereas fathers often take the responsibility of providing for the family (Hoffman & Kloska, 1995; Rojas-McWhinney & Bell, 2017). However, most prior studies on parental family obligation have tended to focus on mothers (Calzada et al., 2013; Lansford et al., 2015). Including both mothers and fathers in the current study allows us to explore potential differences by parent gender. Moreover, traditional Mexican culture has gendered expectations for boys and girls: girls are expected to take more responsibility for caring for siblings and helping with household duties, and are also more likely to provide emotional support and fulfill parents' expectations than boys (Milan & Wortel, 2015; Raffaelli & Ontai, 2004). Thus, girls' and boys' family obligation values may link to parenting and youth outcomes differently.

Second, the links between family obligation, parenting, and adolescent outcomes may depend on who reported on parenting. Prior studies have demonstrated that parents and adolescents often provide inconsistent reports on the same parenting construct, and the association between parenting and other study variables may vary across reporters on parenting (Hou et al., 2019; Korelitz & Garber, 2016). Therefore, this study uses a multi-informant design: we include adolescent- and mother-reported maternal parenting, and adolescent- and father-reported paternal parenting. We simultaneously include multiple

informants' reports of parenting in one model to examine how the study associations vary across informants on parenting.

Current Study

The current study aims to provide a comprehensive understanding of the relationship between family obligation and adolescent outcomes. We have four specific research questions. First, do both parents' and adolescents' family obligation relate to parenting and adolescent outcomes? Second, does supportive parenting mediate the link between family obligation and adolescent outcomes? Guided by the integrative model of parenting (Darling & Steinberg, 1993) and the transactional model of development (Sameroff & Mackenzie, 2003), we propose that both parents' and adolescents' family obligation may relate to more supportive parenting practices, which in turn relate to more positive adolescent outcomes. Third, do the links between family obligation, parenting, and adolescent outcomes vary across parent gender, adolescent gender, and informants on parenting? We hypothesize that the links between family obligation, parenting, and adolescent outcomes may be stronger for mothers and girls, given gender differences in family roles (Milan & Wortel, 2015), and when study variables are reported by the same informant, given common informant bias (Hou et al., 2019).

Method

Participants

Participants were 604 Mexican American immigrant families recruited from a metropolitan city in central Texas. Two waves of data were collected from 2012 to 2015. Participating adolescents were in 6th-8th grades, and their ages ranged from 11.00 to 15.00 ($M_{age} = 12.91, SD = .97$) at Wave 1. The sample was 54 % female ($N = 328$), and 76% of adolescent participants ($N = 455$) were born in the U.S. Participants also included 595 mothers ($M_{age}=38.39, SD=5.74$) and 293 fathers ($M_{age}= 40.82, SD= 6.71$) of the target adolescents. The median household income was \$20,001 to \$30,000, and the average parent education level was middle school. Parents' level of English proficiency was low ($M_{mother} = 1.56, SD = .72; M_{father} = 1.82, SD = .87$), given the inclusion criteria.

Procedure

The current data were drawn from a larger project that targeted adolescent language brokers in Mexican immigrant families; thus, families whose parents were of Mexican origin, with a child in middle school who translated for at least one parent, qualified for participation. The target families were recruited via public records, school presentations, and community recruitment. A family visit was scheduled if the family decided to participate. Parents provided informed consent, and adolescents provided assent before completing questionnaires. Bilingual interviewers then administered the questionnaires, reading questions aloud to participants and recording participants' responses on a laptop computer. The questionnaires were prepared in both English and Spanish. Both languages were presented simultaneously on the questionnaires.

The two waves of data were collected following the same procedures with an approximately one-year interval between them. Of the 604 families participating in Wave 1, 80% ($N = 483$) were retained in Wave 2. Families were compensated \$60 in Wave 1 and \$90 in Wave 2. Attrition analyses were conducted to examine if there were any differences in demographic variables and core study variables between retained families and families that quit. No significant differences were found, except that parents from families that continued participating were more likely to have a higher education level ($t_{\text{mother}}(591) = 2.41, p < .05$; $t_{\text{father}}(291) = 3.13, p < .01$).

Measures

Sense of Familial Obligation. Fathers', mothers' and adolescents' family obligation were assessed using Fuligni et al.'s familial obligation measure (Fuligni, Tseng, & Lam, 1999) across two waves. On a response scale ranging from 1 (not at all important) to 5 (very important), participants responded to 13 items about their attitudes and values toward their families. Sample items for adolescent-reported family obligation are: "Treat your parents with respect"; "Do well for the sake of the family"; and "Your parents live with you when they get older". Sample items for fathers' and mothers' family obligation are: "[How important it is to you that the target child] treats you with respect" and "follows your advice about his/her future". These items measure parents' reports of their expectations of youth family obligation, which may reflect parents' own sense of family obligation. The familial obligation measure shows good reliability and validity (Fuligni & Pedersen, 2002). Adolescents', mothers' and fathers' responses on the familial obligation measure in the current study yielded Cronbach's alphas of .88, .77,

and .80 for W1, respectively; and Cronbach's alphas of .88, .80 and .83 for W2, respectively.

Parenting Variables. At Wave 1 and Wave 2, parenting was assessed through measures adapted from the Iowa Youth and Families Project; these measures have been validated for use with Mexican American families (Conger, Patterson, & Ge, 1995; Kim et al., 2013).

Parental warmth. Parental warmth was measured with seven items about the affective dimension of parenting at Wave 1 and Wave 2. Sample items from adolescents' report of maternal and paternal warmth are: "[Does your mother/father] let you know that s/he appreciates you, your ideas, or the things you do?" and "[Does your mother/father] listen carefully to your point-of-view (what you think)?" Sample items from parents' reports of parental warmth are: "[Do you] let your child know that you appreciate him/her, his/her ideas, or the things he/she does?" and "[Do you] listen carefully to your child's point-of-view (what he/she thinks)?" The rating scale ranged from 1 (never) to 7 (always). Higher mean scores represent higher levels of warmth. Cronbach's alphas of adolescent report of maternal warmth are .91 and .92 for W1 and W2, respectively. Cronbach's alphas of adolescent report of paternal warmth are .93 and .93 for W1 and W2, respectively. Mothers' responses on this measure provided Cronbach's alphas of .79 and .80 for W1 and W2, respectively. Fathers' responses on this measure provided Cronbach's alphas of .80 and .85 for W1 and W2, respectively.

Parental monitoring. Monitoring was assessed by three items at W1 and W2.

Sample items from adolescent-reported maternal and paternal monitoring are: “[Does your mother/father] know who you are with when you are away from home?” and “[Does your mother/father] talk to you about what is going on in your life?” Sample items from both fathers’ and mothers’ reports of parental monitoring are: “[Do you] know who your child is with when he/she is away from home?” and “[Do you] talk to your child about what is going on in his/her life?” The measures are on a 5-point scale ranging from 1 (never) to 5 (always). Higher mean scores represent higher levels of monitoring.

Cronbach’s alphas of adolescent-reported maternal monitoring are .77 and .75 for W1 and W2, respectively. Cronbach’s alphas of adolescent-reported paternal monitoring are .86 and .87 for W1 and W2, respectively. Mothers’ responses on this measure provided Cronbach’s alphas of .64 and .73 for W1 and W2, respectively. Fathers’ responses on this measure provided Cronbach’s alphas of .76 and .71 for W1 and W2, respectively.

Parental inductive reasoning. Inductive reasoning was assessed by four items at Wave 1 and Wave 2. Sample items for adolescents’ report of maternal inductive reasoning and paternal inductive reasoning are: “[Does your mother/father] give you reasons (explanations) for her/his decisions?” and “[Does your mother/father] discipline you by reasoning, explaining, or talking to you?” A sample item for fathers’ report and mothers’ report is, “Do you give reasons (explain) to your child for your decisions?” and “Do you discipline your child by reasoning, explaining, or talking to him/her?”. The measures are on a 5-point scale ranging from 1 (never) to 5 (always). Higher mean scores

represent higher levels of reasoning. Cronbach's alphas of adolescent report of maternal inductive reasoning are .81 and .86 for W1 and W2, respectively. Cronbach's alphas of adolescent report of paternal inductive reasoning are .87 and .88 for W1 and W2, respectively. Mothers' responses on this measure provided Cronbach's alphas of .67 and .66 for W1 and W2, respectively. Fathers' responses on this measure provided Cronbach's alphas of .72 and .77 for W1 and W2, respectively.

Adolescent life meaning. Life meaning was measured using three items from the subscale of the Meaning in Life Questionnaire (Steger, Frazier, Oishi, & Kaler, 2006). Adolescents self-reported on how they perceive their life, endorsing items such as: "I understand my life's meaning" on a scale of 1 (strongly disagree) to 5 (strongly agree). These items were selected given their relatively high item scale correlations and their good face validity (Steger et al., 2006). Higher mean scores reflect a greater sense of life meaning ($\alpha = .87$ at W1; $\alpha = .90$ at W2).

Adolescent resilience. Resilience was measured by three items from the Connor-Davidson Resilience Scale (Connor & Davidson, 2003), for example, "I tend to recover easily after an illness or hardship" and "I am not easily discouraged by failure". Prior research has validated this scale for use with Mexican American adolescents (Kim, Hou, & Gonzalez, 2016). Adolescents reported on a scale of 1 (strongly disagree) to 5 (strongly agree), with higher scores reflecting a greater sense of resilience ($\alpha = .64$ at W1; $\alpha = .73$ at W2).

Adolescent grades. Adolescents reported their average grades at school on a 5-point

scale ranging from 1 (Excellent) to 5 (Very below average). These self-reported grades were reverse coded so that higher scores reflect better academic performance.

Covariates. Several demographic variables were considered as covariates in this study, including adolescent age, gender, nativity (i.e., whether born in the U.S. or not), and parental education and income, given their association with adolescents' developmental outcomes demonstrated in prior studies (Conger & Donnellan, 2007; Yip, Gee, & Takeuchi, 2008). Parents self-reported on their highest education level using an 11-point scale, ranging from 1 (*no formal schooling*) to 11 (*finished graduate degree*). Parents reported their family income on a scale of 1 (*\$10,000 or under*) to 11 (*\$110,001 or more*). Moreover, the current study took the language brokering frequency for parents as an important covariate, by partialling out the potential influence of family obligation behaviors (i.e., family assistance), to examine the essential role of family values in parenting and outcomes.

Analysis Plan

All models were examined using Mplus 8.3 (Muthén & Muthén, 1998-2015) with maximum likelihood estimation with robust standard errors (MLR). The full information maximum likelihood (FIML) estimation was adopted to handle missing data. First, correlational analyses were conducted to describe the bivariate associations between main variables and covariates (i.e., adolescents' gender, age, sex, nativity, and parental educational level and income). Second, confirmatory factor analysis (CFA) was conducted to test whether the three indicators (parental warmth, parental monitoring, and

parental inductive reasoning) for adolescent-reported maternal and paternal parenting practices, and mother-reported and father-reported parenting practices, fit a hypothesized measurement model of parenting at Wave 1 and Wave 2. Third, the structural model shown in Figure 1 was tested to investigate whether both parents' and adolescents' reports of family obligation indirectly related to adolescent adjustment (academic performance, life meaning and resilience) through the mediating role of supportive parenting. Both direct and indirect effects in the path model were estimated at the same time. Fourth, in order to explore the moderation, the current study conducted an invariance test by examining whether paths in the mediation model differed across three moderators: parent gender, adolescent gender and informant on parenting (See Fig. 1). Specifically, a stepwise process was utilized to estimate the baseline model (full model). Then, we constrained all paths to be equal across the moderators (fully constrained model). The Chi-square difference tests were used to examine whether the model with fully constrained pathways led to a significant decrease in the overall model fit. If the constrained model yielded worse model fit than the baseline model, next we constrained each individual set of pathways to be equal across parent gender (e.g., m1 and f1 paths, m5 and f5 paths), adolescent gender (e.g., a1 path in girl group and boy group) and informant on parenting (e.g., a5 and m5 paths, a5 and f5 paths)(see Fig. 1). The Chi-square difference tests were used to examine whether the model with constrained pathways led to a significant decrease in the overall model fit. If the constrained model yielded a worse model fit than the base model, then we concluded that the path strength

was significantly different across moderators. That is to say, the moderating effects of parent gender, adolescent gender and informants were significant. Finally, according to the transactional model of development (Sameroff & Mackenzie, 2003), the relations between parental practices and family obligation may be bidirectional, because the interactions between parents and adolescents are reciprocal. Thus, in order to demonstrate greater confidence for the proposed model, a sensitivity analysis was conducted: three alternative models were tested to examine the directions of the mediational pathways to demonstrate greater confidence in the proposed model: the effects of W1 parenting practices on W2 adolescent outcomes via W1 family obligation; W1 adolescent outcomes on W1 family obligation via W2 parental practices; and W1 adolescent outcomes on W2 parental practices via W1 family obligation were all compared. Employing the structural equation framework for the models, the comparative fit index (CFI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR) were selected as goodness-of-fit indicators for these models (Hu & Bentler, 1999). Model fit is considered acceptable when the CFI value is greater than .90, and RMSEA and SRMR values are lower than .06 (Hooper, Coughlan, & Mullen, 2008). In addition, the significance of p-value in the SEM model is not an effective indicator of the model fit because the p-value is affected by large sample size (Bentler, 1990).

Results

Descriptive information and correlation

The descriptive information and correlations among the study variables are shown in Table 1. Results generally demonstrated that there are significant associations among family obligation, supportive parenting indicators (parental warmth, monitoring and inductive reasoning) and adolescent self-reported grades, sense of life meaning and resilience. Specifically, the association between family obligation and parenting was stronger when reported by the same reporter. For example, a higher level of adolescent self-reported family obligation was associated with more adolescent self-reported supportive parenting and better adolescent outcomes, whereas parents' family obligation was positively related to parents' self-report supportive parenting, but not adolescent outcomes. In general, parental family obligation was negatively associated with parent education.

Measurement Model of Supportive Parenting

A measurement model for supportive parenting practices including father-reported parenting, mother-reported parenting, adolescent-reported maternal parenting and adolescent-reported maternal parenting showed good fit: at Wave 1, $\chi^2(44, N = 604) = 60.835, p = .047, CFI = .993, RMSEA = .025, 90\% CI [.003, .039], SRMR = .033$; at Wave 2, $\chi^2(44, N = 483) = 74.951, p = .003, CFI = .982, RMSEA = .038, 90\% CI [.023, .053], SRMR = .043$. Factor loadings of father-reported parental warmth,

monitoring and inductive reasoning ranged from .694 to .796 across W1 and W2; factor loadings of mother-reported parental warmth, monitoring and inductive reasoning ranged from .609 to .775 across W1 and W2; factor loadings of adolescent reported paternal warmth, monitoring and inductive reasoning ranged from .758 to .867 across W1 and W2; factor loadings of adolescent reported maternal warmth, monitoring and inductive reasoning ranged from .691 to .839 across W1 and W2.

Linking Family Obligation to Parenting Practices to Adolescent Outcomes

The model fit was good for the hypothesized model (see Figure 1), $\chi^2(207) = 317.304$, $p = 0.000$, comparative fit index (CFI) = .969, root mean square error of approximation (RMSEA) = .030 [CI: .023, .036], and standard root mean-square residual (SRMR) = 0.046. The standardized path parameters of the paths in the conceptual model are displayed in Figure 1.

Direct paths. In general, family obligation was significantly related to supportive parenting practices. Specifically, adolescents' sense of family obligation was positively related to adolescent-reported maternal and paternal supportive parenting, and to mother-reported supportive parenting. Mothers' sense of family obligation was positively associated only with mother-reported supportive parenting, and fathers' sense of family obligation was positively linked only to fathers' report of supportive parenting. Further, some links between supportive parenting and adolescent outcomes were also significant in the model. In particular, adolescent-reported maternal supportive parenting was positively related to adolescent sense of resilience and life meaning, and to adolescent

self-reported grades. Fathers' report and mothers' report of supportive parenting were also associated with adolescent sense of resilience.

Indirect pathways from family obligation to adolescent outcomes. All potential indirect effects from family obligation to adolescent outcomes were estimated (see Table 2). The indirect effect of adolescent-reported family obligation at Wave 1 to adolescent outcomes at Wave 2 was significant via adolescent-reported maternal supportive parenting. Specifically, adolescent-reported maternal family obligation at Wave 1 was related to adolescents' own report of more supportive maternal parenting at Wave 1, which was then positively related to their sense of life meaning, resilience and self-reported grades at Wave 2. In addition, the link between mothers' sense of family obligation at Wave 1 and adolescent resilience at Wave 2 was marginally mediated by mothers' report of supportive parenting at Wave 1, while the association between fathers' sense family obligation at Wave 1 and adolescent resilience at Wave 2 was significantly mediated by father-reported supportive parenting practices at Wave 1.

The Moderating Role of Parent and Adolescent Gender

Results from the Satorra-Bentler Scaled Chi-Square difference test showed that there was a significant difference in terms of the model fit between the fully constrained model (all paths involving adolescent-reported maternal parenting and paternal parenting were constrained to be equal) and the unconstrained model, $\chi^2(6) = 39.769, p = .000$, suggesting a gender difference between adolescent-reported maternal parenting and paternal parenting in the modeled paths. Specifically, adolescent-reported family

obligation was more strongly related to adolescent-reported maternal parenting ($\beta = .658$, $p = .00$) than to adolescent-reported paternal parenting ($\beta = .539$, $p = .00$). The results suggest that parent gender was a significant moderator in the association between adolescent-reported family obligation and adolescent-reported parenting. Results from the Satorra-Bentler Scaled Chi-Square difference test showed that there was no significant difference in terms of the model fit between the fully constrained model (all paths involving adolescent-reported maternal and paternal parenting were constrained to be equal) and the unconstrained model, $\chi^2 (17) = 645.734$, $p = .804$, suggesting that there is no gender difference between adolescent-reported maternal and paternal parenting in the modeled paths.

Informant Effect

Results from the Satorra-Bentler Scaled Chi-Square difference test showed that there was a significant difference in the model fit between the constrained model (all paths involving adolescent-reported maternal parenting and mother-reported maternal parenting were constrained to be equal) and the unconstrained model, $\chi^2 (6) = 289.28$, $p = .000$. Specifically, mother-reported family obligation was more strongly related to mother-reported parenting ($\beta = .292$, $p = .00$) than adolescent-reported maternal parenting ($\beta = .007$, $p = .172$), while adolescent-reported family obligation was more strongly related to adolescent-reported maternal parenting ($\beta = .658$, $p = .00$) than mother-reported maternal parenting ($\beta = .099$, $p = .037$). Moreover, there was a significant difference in the model fit between the fully constrained model (all paths involving adolescent-

reported paternal parenting and father-reported paternal parenting constrained to be equal) and the unconstrained model, $\chi^2 (6) = 317.30, p = .000$. Specifically, father-reported family obligation was more strongly related to father-reported parenting ($\beta = .328, p = .00$) than adolescent-reported paternal parenting ($\beta = .028, p = .679$), while adolescent-reported family obligation was more strongly related to adolescent-reported paternal parenting ($\beta = .539, p = .00$) than father-reported paternal parenting ($\beta = -.004, p = .940$). The results suggest that there was a significant difference of path strength between adolescent-reported maternal parenting and mother-reported parenting, and between adolescent-reported paternal parenting and father-reported parenting.

Sensitivity Analyses

Alternative models. We tested three alternative models to decide the direction of the links between family obligation, parenting practices, and adolescent outcomes. Model a (W1 parenting practices \rightarrow W1 family obligation \rightarrow W2 adolescent adjustment) showed a good model fit, $\chi^2 (209, N = 604) = 415.824, p = .000$, CFI = .941, RMSEA = .040, 90% CI [.035, .046], SRMR = .070. However, there was no significant indirect effect in Model a. Model b (W1 adolescent adjustment \rightarrow W1 parenting practices \rightarrow W2 sense of family obligation) showed a less than ideal model fit, $\chi^2 (232, N = 604) = 695.807, p = .000$, CFI = .873, RMSEA = .058, 90% CI [.053, .062], SRMR = .084. Model c (W1 adolescent adjustment \rightarrow W1 sense of family obligation \rightarrow W2 parenting practices) showed a poor model fit, $\chi^2 (475, N = 604) = 2036.384, p = .000$, CFI = .752, RMSEA = .074, 90% CI [.070, .077], SRMR = .090. In summary, the original model investigated in this study

showed the best overall model fit relative to the other three models, providing confidence that the relationships among family obligation, parenting practices, and adolescent adjustment followed the sequence of the proposed conceptual model.

Discussion

The current study explored whether and how family obligation related to adolescent adjustment by focusing on the mediating role of supportive parenting, and by considering the moderating role of gender differences and informant effects across parents and adolescents. The results from this study offer three important contributions to the literature. First, adolescents' and parents' reports of family obligation can function as a promotive factor in parent-adolescent interactions and healthy family functioning, such as supportive parenting. Second, both parents' and adolescents' strong sense of family obligation can be considered key promotive factors for Mexican American adolescent adjustment through supportive parenting, especially for adolescents' sense of resilience (King & Ganotice, 2015; Telzer & Fuligni, 2009). Third, this study demonstrates that the associations between family obligation, supportive parenting and adolescent adjustment varied across adolescent reports by parent gender, highlighting the importance of parent gender in the link between family obligation and supportive parenting.

The links from family obligation to parenting practices to adolescent outcomes

In line with prior studies, the present research found a significant link from family obligation to supportive parenting. This finding is consistent with the integrative model of parenting (Darling & Steinberg, 1993), which contends that cultural beliefs and norms provide social frames of reference shaping interactions between parents and adolescents. Moving beyond previous research, which has focused on the direct association between parents' family obligation and their parenting practices, the present study found that

adolescents' family obligation was positively associated with adolescent-reported parenting practices. This finding is consistent with the transactional model of development (Sameroff & Mackenzie, 2003), which proposes that children's behaviors and expectations are also related to parents' behaviors and expectations towards children, as well as the other way around. Specifically, adolescents with a greater sense of family obligation may contribute more help and time to their families. Their respect and obedience towards parents seem to facilitate family functioning by enhancing positive interactions between their parents and themselves. This, in turn, may enable parents to provide their children with higher levels of parental warmth, monitoring and inductive reasoning. The current study is one of the first to offer insight into the crucial associations between adolescent-reported family obligation and parenting practices, and to suggest that family obligation serves as a promotive factor for parent-adolescent interactions, according to self-reports by both adolescents and parents.

Moreover, the significant mediating effect of supportive parenting in the association between adolescents' family obligation and their well-being is consistent with previous findings that cultural orientation was indirectly linked to adolescent outcomes via parenting practices (Kim et al., 2009). More importantly, the present study demonstrated the mediating role of parent-reported parenting in such associations. Both mother-reported and father-reported family obligation were found to be indirectly related to adolescents' sense of resilience via their reports of supportive parenting. Findings from alternative model testing indicated that the proposed conceptual model is more robust,

with better model fit and meaningful and significant indirect effects, relative to the three alternative models, lending confidence to the directions of associations proposed in the original model.

The findings mentioned above suggest that both parents' and adolescents' family obligation have unique implications for adolescents' sense of resilience via the mediating role of supportive parenting. Resilience is particularly important for Mexican adolescents, given that adolescents in Mexican American families are especially vulnerable to social stressors (e.g., discrimination, lower socioeconomic status and difficulty with the English language) that may threaten their psychological adjustment and health (Lim, Stella, De La Cruz, & Trinh-Shevrin, 2017). Fortunately, family obligation, a traditional cultural value shared by Mexican American families, encourages parents to show great support, warmth, caring and attention to their adolescents, while it also enhances adolescents' positive perception of parenting practices. As a result, adolescents with a strong sense of family cohesion will show a stronger sense of resilience through supportive parenting practices. The stronger sense of resilience will help them survive the process of adapting to American culture, despite the stressors they encounter. Thus, it may be worthwhile for interventions to enhance family obligation and supportive parenting practices to help Mexican American adolescents.

Parent Gender Difference and Informant Effects

We found that adolescent family obligation is more strongly related to adolescent-reported supportive maternal parenting than to adolescent-reported paternal parenting.

Mothers in Mexican American families usually focus more than fathers do on understanding their children's needs, building trust and promoting open communication (Perreira et al., 2006). Thus, relative to fathers, mothers may be more sensitive to adolescents' family obligation values and associated behaviors, and thus more likely to adjust their parenting practices accordingly.

Significant differences emerged in the links from adolescent-reported maternal parenting and mother-reported maternal parenting, and adolescent-reported paternal parenting and father-reported paternal parenting, to adolescent outcomes. Moreover, the findings indicated that adolescent-reported sense of family obligation was related only to their own reports of their parents' parenting practices (but not to their parents' reports). Mother-reported family obligation was associated with mother-reported parenting, and father-reported family obligation linked to father-reported parenting. These findings are consistent with the widely held assumption that one's emotions and behaviors are most likely to be influenced by one's own experiences versus those of other family members (Hou, Kim, Hazen, & Benner, 2017).

Limitations and Future Directions

Although the current study makes significant contributions to promote adolescent well-being through positive cultural values and family systems, a few limitations are worth noting. First, the participants were from Central Texas, an area with a dense population of Mexico-origin individuals. It is unknown whether the current findings can be generalized for Mexican American families from other states, or areas where there is a

lower proportion of co-ethnics. Living in an area with a high concentration of co-ethnics may act as a contextual variable that influences Mexican American adolescents' adjustment. Moreover, parents from Mexican American families in current studies have low English proficiency, which is an indicator of low acculturation. Thus, exploring the generalizability of current findings to areas with fewer Mexican American families in the population, and to parents who have a higher level of acculturation, is necessary for future studies. Second, this study utilized adolescent-reported family obligation over only two waves of data. However, adolescent-reported family obligation may change over the course of adolescence (Updegraff et al., 2012), as adolescents gradually engage in more peer interactions and become more independent and less involved in family activities and interactions (Smetana et al., 2006). Therefore, we suggest that future studies should focus on how the relationships among family obligation, parenting practices and adolescent outcomes in the mediating model may change over time. Third, although this study found family obligation values to be promotive of positive adolescent outcomes, the negative consequences of family obligation behaviors (providing family assistance) on adolescent outcomes cannot be ignored. The positive findings in the current study may not hold in all instances and settings. Thus, future studies should undertake a comprehensive exploration of different dimensions of family obligation on adolescent development. Fourth, the current study utilized self-reported measures. The results in the current study reveal that the relationships among the main variables reported by the same participants are stronger than those across reporters. Thus, future studies should use more objective

methods, such as experimental observations, to replicate the findings. Last, the current study assessed both family obligation and parenting at the same time and cannot ensure the causal relationship, particularly the direction of the link between family obligation and parenting. Future studies can measure the predictor, mediator, and dependent variables in a temporal sequence to demonstrate the mediating effects and better support our proposed theoretical model.

Conclusion

Findings from this study highlight the importance of parenting practices in untangling the mechanism underlying the relation between sense of family obligation and adolescent adjustment, suggesting that supportive parenting practices play a vital mediating role in the association between family obligation values and adolescents' academic grades, sense of life meaning and resilience. These findings demonstrate that both parents' and adolescents' perceptions of family obligation and parenting practices should be vital factors of focus in preventive interventions aimed at improving Mexican American adolescents' psychological and academic well-being.

Tables

Table 1 Descriptive statistics and correlations among study variables

	1	2	3	4	5	6	7	8	9	10	11	12
1 W1 adolescent family obligation	1.00	-	-	-	-	-	-	-	-	-	-	-
2 W1 mother family obligation	.06	1.00	-	-	-	-	-	-	-	-	-	-
3 W1 father family obligation	.04	.22**	1.00	-	-	-	-	-	-	-	-	-
4 W1 adolescent-perceived maternal warmth	.60**	.08	.08	1.00	-	-	-	-	-	-	-	-
5 W1 adolescent-perceived paternal warmth	.53**	.08*	.09	.69**	1.00	-	-	-	-	-	-	-
6 W1 mother-reported maternal warmth	.15**	.20**	.00	.22**	.12**	1.00	-	-	-	-	-	-
7 W1 father-reported paternal warmth	.05	.05	.25**	.11	.18**	.13*	1.00	-	-	-	-	-
8 W1 adolescent perceived maternal monitoring	.43**	.03	.03	.58**	.41**	.10*	.04	1.00	-	-	-	-
9 W1 adolescent perceived paternal monitoring	.43**	.07	.03	.48**	.66**	.07	.10	.59**	1.00	-	-	-
10 W1 mother-reported maternal monitoring	.08*	.14**	-.01	.15**	.09*	.42**	.08	.16**	.08	1.00	-	-
11 W1 father-reported paternal monitoring	-.01	-.02	.20**	.01	.07	.07	.50**	.05	.12*	.12*	1.00	-
12 W1 adolescent-perceived maternal reasoning	.47**	.03	.09	.64**	.45**	.07	.04	.55**	.40**	.01	-.03	1.00
13 W1 adolescent-perceived paternal reasoning	.40**	.03	.03	.50**	.73**	.05	.07	.38**	.63**	-.01	.04	.57**
14 W1 mother-reported reasoning	.05	.20**	-.04	.08*	.04	.54**	.05	.09*	.01	.48**	.10	.01
15 W1 father-reported reasoning	-.01	-.06	.17**	-.02	.05	.08	.59**	.02	.07	.04	.56**	.01
16 W2 adolescent life meaning	.25**	.03	.03	.30**	.22**	.06	.04	.20**	.19**	.11*	.07	.25**
17 W2 adolescent self-reported grades	.17**	.08	.03	.21**	.24**	.09	.02	.24**	.20**	.08	-.03	.17**
18 W2 adolescent resilience	.18**	.04	.01	.25**	.26**	.07	.04	.19**	.18**	.11*	.06	.22**
19 W1 adolescent age	-.10*	.06	.06	-.05	-.04	-.11**	-.06	.02	-.04	-.06	-.09	.02
20 W1 adolescent gender	-.06	.00	-.02	-.10*	-.05	.00	-.01	-.14**	-.02	-.04	.01	-.09*
21 W1 adolescent nativity	.02	-.04	.04	.04	.01	.05	.04	-.04	-.01	.00	-.01	-.04
22 W1 mother education	-.02	-.17**	-.17**	-.01	-.10*	-.01	-.04	-.01	-.08	.13**	.17*	-.04
23 W1 father education	.02	-.20**	-.20**	-.09	-.06	.03	.09	-.01	-.02	.14*	.22**	-.06
24 W1 family income	.04	-.12**	-.01	-.04	.01	-.08	.01	.03	.02	.00	.10	-.05

25 W1 Language brokering frequency for parents	.09*	.04	.04	.08	.17**	-.04	.05	.09*	.17**	-.04	-.04	.11**
Mean	4.23	4.37	4.27	5.18	4.95	6.07	5.79	4.08	3.63	4.65	4.43	3.82
SD	0.57	0.46	0.49	1.27	1.47	0.78	0.93	0.82	1.08	0.50	0.70	0.93

Note. Coefficients for correlations among study variables are listed. W1 = Wave 1. W2 = Wave 2. Means and standard deviations are displayed at the bottom of table.
* $p < .05$, ** $p < .01$.

Table 1(continued)

Descriptive statistics and correlations among study variables

	13	14	15	16	17	18	19	20	21	22	23	24	25			
13 W1 adolescent-perceived paternal reasoning				1.00	-	-	-	-	-	-	-	-	-			
14 W1 mother-reported reasoning				.00	1.00	-	-	-	-	-	-	-	-			
15 W1 father-reported reasoning				.06	.08	1.00	-	-	-	-	-	-	-			
16 W2 adolescent life meaning				.16**	.09	.11	1.00	-	-	-	-	-	-			
17 W2 adolescent self-reported grades				.19**	.15**	.02	.15**	1.00	-	-	-	-	-			
18 W2 adolescent resilience				.20**	.11*	.13	.51**	.11*	1.00	-	-	-	-			
19 W1 adolescent age				.00	-.05	.01	-.07	-.05	.05	1.00	-	-	-			
20 W1 adolescent gender				-.03	.01	.03	.10*	.06	.16**	.04	1.00	-	-			
21 W1 adolescent nativity				-.03	.00	-.09	.00	.03	-.05	-.20**	-.02	1.00	-			
22 W1 mother education				-.09*	.07	.13*	.02	.01	.01	-.09*	.00	-.02	1.00			
23 W1 father education				-.07	.11	.19**	-.02	.09	-.05	-.03	.05	-.11	.47**	1.00		
24 W1 family income				-.05	-.05	.10	.03	.02	.00	.04	.05	.06	.17**	.22**	1.00	
25 W1 Language brokering frequency for parents				.19**	-.04	.02	-.08	.09*	-.07	.05	-.02	-.06	-.10*	-.17**	0.00	
Mean				3.54	4.27	3.90	3.70	3.54	3.51	12.91	0.46	0.75	4.81	4.66	2.35	4.30
SD				1.06	0.70	0.90	0.78	0.65	0.65	0.92	0.50	0.43	2.20	2.29	1.54	1.12

Note. Coefficients for correlations among study variables are listed. W1 = Wave 1. W2 = Wave 2. Means and standard deviations are displayed at the bottom of table.
* $p < .05$, ** $p < .01$.

Table 2 Test of indirect effects for family obligation to adolescent outcomes

Paths	Indirect	Direct	Total
Adolescent family obligation (W1) → Self-reported grades (W2)	.183***	-.075	.108**
Adolescent family obligation (W1) → Adolescent report of mom parenting (W1) → Self-reported grades (W2)	.124*		
Adolescent family obligation (W1) → Life meaning (W2)	.140**	-.004	.136**
Adolescent family obligation (W1) → Adolescent report of mom parenting (W1) → Life meaning (W2)	.142**		
Adolescent family obligation (W1) → Resilience (W2)	.165***	.094	.258*
Adolescent family obligation (W1) → Adolescent report of mom parenting (W1) → Resilience (W2)	.113*		
Mother family obligation (W1) → Resilience (W2)	.032	-.025	.007
Mother family obligation (W1) → Mother report of parenting (W1) → Resilience (W2)	.030 ⁺		
Father family obligation (W1) → Resilience (W2)	.045	-.058	-.013
Father family obligation (W1) → Father report of parenting (W1) → Resilience (W2)	.042*		

Note. Standardized coefficients of significant indirect paths are presented. Only significant and marginally significant pathways are shown. W1 = Wave 1. W2 = Wave 2.

⁺ $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

Figure

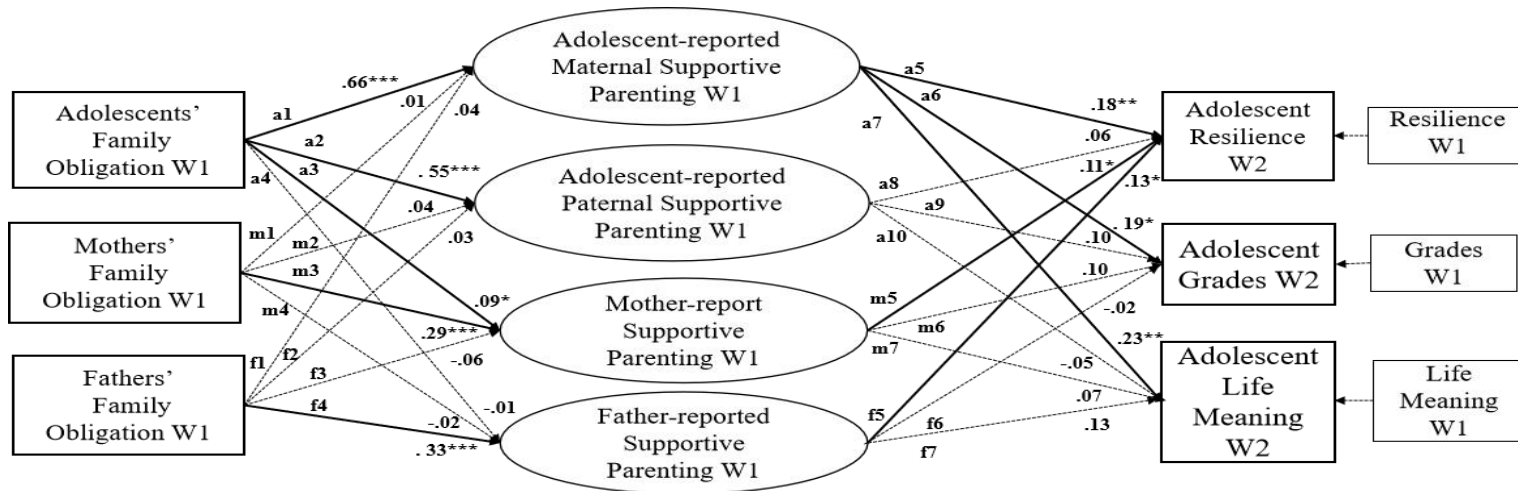


Figure 1. Longitudinal model linking family obligation, parenting practices (parental warmth, parental monitoring and parental inductive reasoning), and adolescent adjustment (life meaning, resilience, and self-reported grades). The covariances among mediators and adolescent outcomes, as well as the direct paths between family obligation and adolescent outcomes, were estimated; however, they are not presented for figure clarity. The numbered paths (i.e., a1 - a10, m1 - m7, f1 - f7) were used to do invariance tests to examine parent gender differences, adolescent gender differences and informant differences in the links from family obligation, parenting, and adolescent outcomes.

Appendix

Adolescent Report of Sense of Family Obligation

In general, how important are the following to you?

1	Not at all important
2	A little important
3	Somewhat important
4	Quite important
5	Very important

1. Treat your parents with respect
2. Follow your parents' advice about choosing friends
3. Do well for the sake of the family
4. Follow your parents' advice about your future
5. Make sacrifices (give up something) for your family
6. Spend time at home with your family
7. Run errands that the family needs done
8. Help out around the house
9. Eat meals with your family

10. Help your parents financially (give them money) in the future when you get older
11. Live at home with your parents until you are married
12. That your parents live with you when they get older
13. Spend time with your parents even after you no longer live with them

Mother's/ Father's Report of Sense of Family Obligation

In general, how important it is to you that the target child...

1	Not at all important
2	A little important
3	Somewhat important
4	Quite important
5	Very important

1. Treat you with respect
2. Follow your advice about choosing friends
3. Do well for the sake of the family
4. Follow your advice about your future
5. Make sacrifices (give up something) for your family
6. Spend time at home with the family
7. Run errands that the family needs done
8. Help out around the house

9. Eat meals with the family
10. Help you financially (give them money) in the future when you get older
11. Live at home with you until he/she are married
12. Allows you live with him/she when you grow older
13. Spend time with you even after you no longer live with them

Mother's /Father's Report of Parental Monitoring

Please think about how you relate to the target child and what kind of expectations you have of him/her. How often does each of the following happen?

1	Never
2	Almost never
3	Not often
4	About half the time
5	Fairly often
6	Almost always
7	Always

1. During the day, do you know where your child is and what he/she is doing?
2. Do you know who your child is with when he/she is away from home?
3. Do you talk to your child about what is going on in his/her life?
4. Let your child know you really love him/her?

4. Do you know if your child comes home or is in bed by the set time?

Mother's /father's Report of Parental Warmth

During the past month, when you and the target child spent time talking or doing things together, how often did you...

1	Never
2	Almost never
3	Not often
4	About half the time
5	Fairly often
6	Almost always
7	Always

1. Let your child know that you appreciate him/her, his/her ideas, or the things he/she does?
2. Help your child do something that was important to him/her?
3. Listen carefully to your child's point-of-view (what he/she thinks)?
4. Let your child know you really love him/her?
5. Ask your child for his/her opinion about an important matter?
6. Have a good laugh with your child about something that was funny?

Mother's/Father's Report of Parental Inductive Reasoning

Please think about how you relate to the target child and what kind of expectations you have of him/her. How often does each of the following happen?

1	Never
2	Almost never
3	Not often
4	About half the time
5	Fairly often
6	Almost always
7	Always

1. Do you give reasons(explain) to your child for your decisions?
2. Do you ask your child what he/she thinks before making decisions that affect him/her?
3. Do you discipline your child by reasoning, explaining, or talking to him/her?

Adolescent's Report of Parental Monitoring

Please think about how your MOTHER/FATHER relates to you and what kind of expectations she/he has of you. How often does each of the following things happen?

1	Never
2	Almost never
3	Not often
4	About half the time
5	Fairly often
6	Almost always
7	Always

1. During the day, does your mother/father know where you are and what you are doing?
2. Does your mother/father know who you are with when you are away from home?
3. Does your mother/father talk to you about what is going on in your life?
4. Does your mother/father know if you came home or if you were in bed by the set time?

Adolescent Report of Parental Inductive Reasoning

1	Never
2	Almost never
3	Not often
4	About half the time
5	Fairly often
6	Almost always
7	Always

Please think about how your MOTHER/FATHER relates to you and what kind of expectations she/he has of you. How often does each of the following things happen?

1. Does your mother/father give you reasons (explanations) for her decisions?
2. Does your mother/father ask you what you think before making decisions that affect you?
3. Does your mother/father discipline you by reasoning, explaining, or talking to you?
4. When you don't understand why your mother/father makes a rule for you to follow, does she/he explain the reasons?

Adolescent Report of Parental Warmth

1	Never
2	Almost never
3	Not often
4	About half the time
5	Fairly often
6	Almost always
7	Always

During the past month, when you and your MOTHER/FATHER spent time talking or doing things together, how often did your mother/father...

1. (Your mother/father) Let you know that she/he appreciates you, your ideas, or the things you do?
2. (Your mother/father) Help you do something that was important to you?
3. (Your mother/father) Listen carefully to your point-of-view (what you think)?
4. (Your mother/father) Let you know she/he really loves you?
5. (Your mother/father) Ask you for your opinion about an important matter?
6. (Your mother/father) Have a good laugh with you about something that was funny?
7. (Your mother/father) Act supportive and understanding towards you?

Life Meaning

How much do you agree with the following statements?

1	Strongly disagree
2	Disagree
3	Neutral/Depends
4	Agree
5	Strongly agree

1. I understand my life's meaning
2. My life has a clear sense of purpose
3. I have a good sense of what makes my life meaningful

Resilience

How much do you agree with the following statements?

1	Strongly disagree
2	Disagree
3	Neutral/Depends
4	Agree
5	Strongly agree

1. I can deal with whatever comes
2. I tend to recover easily after an illness or hardship
3. I am not easily discouraged by failure

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