

The Impact of Parental Enculturation via Ethnic Socialization:
Predictors of Mexican-origin Adolescent Mothers' Ethnic Identity

by

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ABSTRACT

Although previous work has established that ethnic identity has consistently been associated with Latino youths' psychosocial well-being, and families' socialization efforts are important predictors of youths' ethnic identity, an area that has received much less attention is how parents' characteristics inform their ethnic socialization efforts and, in turn, youths' ethnic identity. In addition, we know little about how this process unfolds in specific at-risk samples of youth, such as adolescent mothers. Thus, the current study examined how mothers' cultural characteristics informed adolescents' and mothers' reports of familial ethnic socialization, and how this, in turn, informed adolescents' ethnic identity exploration and resolution. In addition, the current study tested whether mothers' ethnic identity affirmation was directly related to adolescents' ethnic identity affirmation over time. Participants included 193 Mexican-origin adolescents and their mothers who were interviewed when adolescents were in their third trimester of pregnancy, when their infant was 10 months old, and again when their child was 2 years old.

Results (obtained using path analysis with multiple imputation in MPLUS v6) indicated a good fit for the hypothesized model. Constraints were imposed to test whether the paths in the model varied by adolescents' nativity. The final model indicated that mothers' familism was associated with increases in mothers' reports of maternal ethnic socialization, and, in turn, with increases in ethnic identity exploration for foreign-born adolescents, and decreases in ethnic identity exploration for U.S.-born adolescents. Mediation analyses indicated significant

mediation for this path for both groups. Additionally, as expected, adolescents' reports of familial ethnic socialization were associated with increases in their ethnic identity exploration and resolution. Finally, mothers' ethnic identity affirmation was associated with increases in adolescents' ethnic identity affirmation. Findings are discussed with special attention to the importance of mothers' cultural values in how they socialize their adolescents, and this impact on adolescents' ethnic identity, as well as the implications this study has for interventions focused on bolstering positive outcomes, such as ethnic identity, for adolescent mothers.

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INTRODUCTION

In the past decade, the number of Latinos in the United States (U.S.) reached 16.3% of the total population, and accounted for over 56% of the nation's growth (Pew Hispanic Center, 2011). It is expected that by 2050, one in three U.S. residents will be Latino (Bernstein & Edwards, 2008). Currently, 23% of children 17 years old and younger are Latino (Pew Hispanic Center, 2011), and 66% of all Latinos are of Mexican-origin (Pew Hispanic Center, 2009). Given this visible prevalence and growth, it is imperative to focus on normative developmental processes that facilitate positive outcomes for Mexican-origin youth living in the U.S. One such normative process is ethnic identity, which has been conceptualized various ways across developmental periods. For adolescents, one way it has been defined involves individuals' exploration of their ethnicity, resolution of what ethnicity means in their lives, and affirmation of positive feelings toward their ethnicity (Umaña-Taylor, Yazedjian, & Bámaca-Gómez, 2004). Although it is well-established that ethnic identity is positively associated with Latino youths' psychosocial well-being (e.g., Fuligni, Witkow, & Garcia, 2005; Schwartz, Zamboanga, & Jarvis, 2007) and that families' socialization efforts are important predictors of youths' ethnic identity (e.g., Knight et al., 2011; Umaña-Taylor, Alfaro, Bámaca, & Guimond, 2009), an area that has received much less attention is how parents' characteristics inform increases in ethnic socialization efforts and, in turn, increases in youths' ethnic identity (see

Knight et al., 2011 for an exception). In addition, we know little about how this process unfolds in specific at-risk samples of youth, such as adolescent mothers.

Adolescent mothers are essential to include in literature on adolescents' ethnic identity formation because they have been found to be at-risk for various negative outcomes, such as lower self-esteem and higher depression than adult mothers (Whitman et al., 2001), and research with community-based samples of ethnic minority¹ youth not sampled for being at-risk has found ethnic identity to be associated with higher self-esteem (Schwartz et al., 2007) and lower depressive symptoms (Costigan, Koryzma, Hua, & Chance, 2010). Importantly, understanding predictors that are associated with increases in ethnic identity for this particular group of at-risk youth may provide insight into opportunities for preventive interventions that target normative development and positive outcomes. Furthermore, a focus on *Mexican-origin* adolescent mothers in particular is important given that, in the U.S., Mexican-origin adolescent females face the highest risk for teenage pregnancy among all racial and ethnic minority groups (National Vital Statistics Report, 2005).

As noted above, existing research on familial ethnic socialization and ethnic identity has tended to focus almost exclusively on community-based samples of youth not selected for being at risk (referred to as community-based

¹ The current study utilized the term *ethnic minority* to refer broadly to individuals whose ethnic group in the U.S. is represented as a numeric minority. To be as specific as possible, the term *Mexican-origin* was used when referring to the current sample. When reviewing prior work, the term *Latino* was used when multiple Latino populations were examined/discussed.

samples). Furthermore, scholars have noted that research with at-risk ethnic minority youth has tended to focus on deficit models, rather than focusing on normative developmental processes and assets that are associated with resiliency (see García Coll et al., 1996 for a review). In one exception, findings from a study that included a sample of Mexican American at-risk youth (i.e., adolescent male juvenile offenders aged 14- to 17- years old) found that family background variables (i.e., parents who were born in Mexico and mothers who spoke Spanish) were positively and significantly related to adolescents' ethnic identity (Knight et al., 2009). These findings suggest that processes of ethnic identity may be similar for at-risk youth. Given the well-documented association between ethnic identity and positive youth adjustment, it is especially important to examine this process among different groups of at-risk youth. As such, the current study examined how maternal characteristics were associated with increases in familial ethnic socialization (i.e., after accounting for previous levels of familial ethnic socialization), and, in turn, adolescents' ethnic identity formation (i.e., after controlling for previous levels of adolescents' ethnic identity) among a sample of at-risk adolescent mothers.

In sum, guided largely by bioecological theory, which posits that individuals develop through interactive, proximal processes with others in their immediate and remote contexts (Bronfenbrenner & Morris, 2006), the current study examined how mothers' characteristics informed increases in ethnic socialization practices and, in turn, increases in their adolescent daughters' ethnic

identity. Generally, it was hypothesized that mothers' higher levels of enculturation characteristics (e.g., familism values) would be associated with increases in ethnic socialization practices, which would, in turn, be associated with increases in their daughters' ethnic identity.

The sections that follow present the conceptual rationale and relevant empirical support for the hypothesized associations. First, the conceptualization of ethnic identity, based largely on ego identity (Erikson, 1968) and social identity (Tajfel, 1981) theories, is presented. Second, because the conceptual model in the current study was based largely on notions from bioecological theory (Bronfenbrenner & Morris, 2006), the major tenets of this theory are presented along with a discussion of how these conceptual notions informed the hypothesized model. Finally, two subsequent sections review the limited empirical research that has examined the associations between (a) parents' characteristics and familial ethnic socialization practices, and (b) familial ethnic socialization practices and Mexican-origin youths' ethnic identity. Because I know of no studies that have examined the predictors of ethnic identity among adolescent mothers, the subsequent sections review the literature on ethnic identity formation in community-based samples of non-pregnant Mexican-origin adolescents.

LITERATURE REVIEW

A Developmentally Informed Conceptualization of Ethnic Identity during Adolescence

The study of ethnic identity is an area of research that has been growing consistently for several decades. Recently, researchers have moved toward in-depth and multidimensional ways of measuring, and thus capturing, the complexity of ethnic identity. Scholars have conceptualized the process of ethnic identity based on a variety of theoretical perspectives. Developmental scholars studying adolescents (e.g., Phinney, 1992; Umaña-Taylor et al., 2004) have relied largely on theoretical notions advanced by ego identity theory (Erikson, 1968) and social identity theory (Tajfel, 1981) to capture the complexity of ethnic identity during adolescence as a developmental process that is contextually informed. As such, these frameworks have been particularly influential in the literature on adolescents' ethnic identity formation and are briefly reviewed below.

Ego identity theory (Erikson, 1968) suggests that development proceeds in a series of stages that occur at specific ages, with individuals following a stage-like progression as they mature. It is conceived that during adolescence individuals become concerned with the view they have of themselves compared to how others view them, and become eager to be affirmed by peers and society. Further, the way in which adolescents move into the next stage of development is to create continuity between how they have defined identity for themselves and how others see them. Erikson (1968) conceived that this is achieved through exploration and commitment to an identity.

A second influential framework that focuses on the context of an individual's identity is social identity theory (Tajfel, 1981), which suggests that

one's concept of self is derived from membership in particular social groups. Therefore, individuals do not have one single identity, but rather several identities that cumulatively form self-concept. Social identity theory posits that identity development is a dynamic process that varies by context.

Early work on ethnic identity during adolescence (e.g., Phinney, 1992) applied these theoretical notions to the construct of ethnic identity, and identified exploration and commitment to one's ethnicity as two components involved in the process of forming a positive ethnic identity. Extending this work, Umaña-Taylor and colleagues (2004) further refined the construct by proposing three unique components of ethnic identity, including exploration (e.g., attending cultural celebrations), resolution (e.g., being clear about the meaning of one's ethnicity), and affirmation (e.g., feeling positively about one's ethnicity). The developmentally-driven *exploration* of one's ethnic background and *resolution* (alternatively termed commitment) of what it means to be a member of an ethnic group are captured by Erikson's (1968) ego identity theory, and the contextually-driven *affirmation*, comprised of positive feelings toward one's ethnicity, is captured by Tajfel's (1981) social identity theory. This three-part conceptualization of ethnic identity has been empirically supported by psychometric work that has confirmed a three-factor structure for the construct (Yoon, 2011), and by studies finding that the components of ethnic identity are differentially associated with predictors (e.g., familial ethnic socialization;

Supple, Ghazarian, Frabutt, Plunkett, & Sands, 2006) and outcomes (e.g., interest in school; Borrero & Yeh, 2011).

Importantly, ethnic identity has been linked to many positive outcomes for adolescents. In Western societies such as the U.S., it is during adolescence that individuals experience several changes, such as puberty, cognitive advancement, and greater awareness of societal expectations that facilitate the development of a self-concept (Roland, 1994). Given that one's sense of self can be related to membership in a particular social group (Tajfel, 1981) an important task for ethnic minority youth is the development of an ethnic identity (Phinney, 1992). Much of the existing empirical work with Latino youth, using a composite ethnic identity score, has found ethnic identity to be significantly and positively associated with various indices of positive adjustment, such as self-esteem (Schwartz et al., 2007), positive attitudes toward education (Fuligni, Witkow, & Garcia, 2005), positive attitudes toward other ethnic groups (Phinney, Jacoby, & Silva, 2007), satisfaction with life (Ghavami, Fingerhut, Peplau, Grant, & Wittig, 2011), and optimism (Roberts et al., 1999). The positive links that have been established make it particularly important to understand the factors that predict ethnic identity, especially among teen mothers, who are at high risk for maladjustment. As described below, these predictors can be understood through a bioecological framework.

Understanding Predictors of Ethnic Identity from a Bioecological Framework

Bioecological theory purports that individuals develop through interactive, proximal processes with others in their environmental contexts (Bronfenbrenner & Morris, 2006). In terms of ethnic identity formation, existing literature has established that important proximal processes for ethnic minority youth include family members (e.g., parents) socializing youth about their ethnicity and culture (e.g., Umaña-Taylor & Fine, 2004). Specifically, ethnic socialization is the processes through which children acquire behaviors, values, and attitudes of their ethnic group, and come to see themselves as members of this group (Rotheram & Phinney, 1987). Familial ethnic socialization captures the ways in which *family members* contribute to the process of ethnic socialization for children and adolescents (Knight, Bernal, Garza, Cota, & Ocampo, 1993). For example, familial ethnic socialization may involve parents exposing children to their heritage culture through activities such as cooking traditional foods, and/or communicating values and beliefs from their country of origin (Umaña-Taylor & Fine, 2004). Bioecological theory (Bronfenbrenner & Morris, 2006) further proposes that proximal processes occur over time and vary depending on characteristics of the persons involved via their influence in the emergence and operation of the processes of interest. Thus, it follows that the proximal process of familial ethnic socialization may be influenced by family members' own cultural orientation. Cultural orientation refers broadly to individuals' *acculturation* characteristics (i.e., the degree to which individuals adopt the values and/or behaviors of the mainstream culture) and *enculturation* characteristics (i.e., the

degree to which individuals maintain the values and/or behaviors of their heritage culture; Berry, 2003). Because the focus of the current study was on youths' ethnic identity, which reflects one's identity with respect to the heritage culture, the current model is focused on mothers' *enculturation* characteristics. Particularly, grounded in bioecological theory, it was proposed that higher levels of mothers' enculturation values (i.e., familism), behaviors (i.e., involvement with Mexican culture), and ethnic identity (i.e., ethnic identity exploration and ethnic identity resolution) would be associated with increases in mothers' reports of the ethnic socialization that they provide their adolescents, as well as increases in ethnic socialization adolescents report receiving from their families (including their mothers), which would, in turn, be associated with increases in adolescents' own ethnic identity exploration and ethnic identity resolution. In addition, based on tenets of social cognitive theory (Bandura, 1986), which posits that individuals can learn values via modeling from those in their environment, it was expected that mothers' ethnic identity *affirmation* would be positively associated with increases in adolescents' ethnic identity affirmation, rather than indirectly via their ethnic socialization efforts (the distinct predictions regarding mothers' ethnic socialization and the three ethnic identity components are discussed in detail in subsequent sections).

Parental Enculturation and Changes in Ethnic Socialization

Bioecological theory (Bronfenbrenner and Morris, 2006) posits that processes in which individuals engage are influenced by individual

characteristics. Consistent with these theoretical notions and specific to ethnic identity formation, limited research available (e.g., Knight, Bernal et al., 1993; Romero, Cuéllar, & Roberts, 2000) suggests that parental enculturation characteristics are associated with the ethnic socialization efforts in which they engage with their children. In a review of parents' socialization practices, Hughes and colleagues (2006) mention that surprisingly few studies have examined the ways in which parents' identity informs their socialization efforts (Hughes, Rodriguez, Smith, Johnson, Stevenson, & Spicer, 2006). One exception was a study of socialization efforts of Mexican-origin families, which found that parents who reported higher levels of Mexican identity also reported engaging in more ethnic socialization with their children (Romero, Cuéllar, & Roberts, 2000). Furthermore, although scholars have emphasized that enculturation is a multidimensional construct that should be assessed with various measures (e.g., identity, behaviors, values; Gonzales, Knight, Morgan-Lopez, Saenz, & Sorolli, 2002), very few studies have implemented these recommendations when examining how parental enculturation characteristics inform the socialization efforts they engage in with their children, especially among Mexican-origin parents (see Knight, Bernal et al., 1993 for an exception). In another exception, findings from a study of Mexican American early adolescents and their parents indicated that mothers' familism values (i.e., strong identification with and attachment to the family; Sabogal, Marín, Otero-Sabogal, Vanoss Marín, & Perez-Stable, 1987), traditional gender role attitudes, and values regarding respect were

positively related to mothers' reports of ethnic socialization of their children (Knight et al., 2011). This supports the notion that culturally informed parental values are important predictors of ethnic socialization, and thus should be included in studies that examine factors that inform parents' socialization efforts.

In addition to the prior work with Mexican-origin parents, a small body of research has focused on other groups of Latino or ethnic minority parents and the ways in which their enculturation characteristics inform their ethnic socialization efforts. For example, a study that explored factors related to African American and Latino (i.e., Puerto Rican and Dominican) parents' messages to their children about culture found that parents who identified more strongly with their cultural group (as measured by their closeness to and preference for their ethnic group) also reported higher levels of cultural socialization of their children (Hughes, 2003). Similarly, in a study of African American parents, mothers who had more positive views about their identity (i.e., identity was highly central to them and they felt more positive feelings toward other African Americans) reported communicating more frequent and positive messages to their children about their culture (White-Johnson, Ford, & Sellers, 2010). These studies have been important in demonstrating that there is an association between parents' enculturation characteristics and their socialization efforts; however, there have not been any studies to date that have simultaneously examined how parental values, ethnic identity, and behaviors relate to their socialization efforts over time. As such, the current study examined how maternal reports of familism values,

involvement with Mexican culture, ethnic identity exploration, and ethnic identity resolution were associated with increases in adolescents' reports of ethnic socialization provided by their family (including their mothers), and increases in mothers' reports of ethnic socialization they reported providing their adolescents. Based on previous work with some of these enculturation characteristics, it was hypothesized that higher levels of all maternal enculturation characteristics would be significantly associated with increases in mothers' reports of maternal ethnic socialization and adolescents' reports of familial ethnic socialization (i.e., ethnic socialization provided by all family members, including mothers).

Familial Ethnic Socialization and Ethnic Identity

In addition to understanding how multiple dimensions of parental enculturation relate to familial ethnic socialization and maternal ethnic socialization, it is also important to understand how these constructs, in turn, relate to adolescents' normative ethnic identity development. Numerous studies have focused on how parental socialization efforts impact adolescents' psychosocial well-being, especially in terms of their ethnic identity (e.g., Umaña-Taylor, Alfaro, Bámaca, & Guimond, 2009; Supple et al., 2006). However, few studies have simultaneously examined how parents' characteristics inform youths' ethnic identity via familial ethnic socialization efforts (see Knight et al., 2011 for an exception). Given that ethnic identity has consistently been found to be associated with youths' self-esteem and positive well-being (Smith & Silva, 2011), it is particularly important to understand the mechanisms by which

parents' enculturation characteristics inform adolescents' ethnic identity. A focus on how *mothers'* enculturation characteristics and ethnic socialization practices inform their daughters' ethnic identity was particularly important for the current population because mothers have been identified as essential in the lives of adolescent mothers (Brooks-Dunn & Chase-Lansdale, 1995).

Given that bioecological theory proposes that individuals develop through interactions with those in their immediate contexts (e.g., parents), it is not surprising that existing studies have found ethnic socialization to be positively related to ethnic identity among Mexican-origin children and non-pregnant Mexican-origin adolescents of various ages. In one of the first studies to examine this relation among children, Knight, Cota, and Bernal (1993) examined a model of the socialization of cultural behavior styles. A partial test of their model with a sample of Mexican American mothers and their children/early adolescents (i.e., aged 9- to 12- years old) revealed that maternal reports of teaching about ethnic culture were associated with children's reports of ethnic knowledge, ethnic self-identification, and ethnic preference. Another study that conceptualized ethnic identity in a similar manner included a sample of Mexican American youth aged 7- to 13- years old and their mothers and/or fathers (Quintana & Vera, 1999). Findings indicated that parental reports of ethnic socialization directly predicted children's ethnic knowledge. Together, these studies support the notion that ethnic socialization plays an important role in how children understand themselves even as young as 7 years of age.

Because *adolescence* is considered a particularly relevant time for identity formation (Erikson, 1968), a relatively larger body of research has focused on how ethnic socialization informs ethnic identity during this developmental period. Some studies have measured ethnic identity among Latinos by focusing on ethnic identity achievement (i.e., a composite ethnic identity construct comprised of higher levels of exploration and commitment toward one's ethnic group, higher participation in ethnic behaviors or activities, and greater positive feelings and preferences toward one's ethnic group; e.g., Phinney, 1992) and others have examined ethnic identity by assessing exploration and commitment separately (e.g., Phinney & Ong, 2007). In one study that included Mexican-origin adolescents aged 13- to 19- years old, adolescents who reported higher levels of familial ethnic socialization demonstrated higher levels of ethnic identity achievement (Umaña-Taylor & Fine, 2004). Another study that examined the relation between familial ethnic socialization and ethnic identity achievement among high-school Asian Indian, Chinese, Filipino, Vietnamese, and Salvadoran adolescents in the U.S. found a significant positive association between these two constructs for all groups (Umaña-Taylor, Bhanot, & Shin, 2006). In a recent study that included a sample of diverse undergraduate students, with the majority being between 18 and 21 years of age, Abu-Sbaih (2010) found that students' reports of familial ethnic socialization were positively associated with both exploration and commitment. In fact, of all of the variables in the study that were expected to be associated with ethnic identity (i.e., parenting style, familial ethnic socialization,

and quality of attachment), ethnic socialization was the strongest predictor, suggesting the importance of familial ethnic socialization in youths' ethnic identity development.

Other studies with adolescents have utilized a more refined measurement of ethnic identity by including individual assessments of ethnic identity exploration (i.e., engaging in culturally relevant activities), ethnic identity resolution (i.e., understanding what ethnicity means in one's life), and ethnic identity affirmation (i.e., feeling positively about one's ethnicity; Umaña-Taylor et al., 2004). For example, in a study of high-school Latino (72% Mexican-origin) adolescents, familial ethnic socialization was found to be a significant mediator in the association between youth's generational status and their ethnic identity exploration and ethnic identity resolution (Umaña-Taylor et al., 2009). This study was one of the few to examine this relation using a longitudinal design. The authors concluded that familial ethnic socialization plays a central role in the formation of youth's ethnic identity resolution and ethnic identity exploration.

Regarding adolescents' ethnic identity affirmation, it is possible that this aspect of ethnic identity may be shaped more by individuals' personal experiences (e.g., how others perceive them based on their physical appearance), rather than ethnic socialization. It is also possible that parents' own positive feelings about ethnicity (i.e., parents' ethnic identity affirmation) influence adolescents' positive feelings about ethnicity via modeling. Social cognitive theory (Bandura, 1986) posits that individuals can vicariously learn emotions that they internalize for

themselves by modeling others in their environment (e.g., parents). Specifically, values can be developed by repeated exposure to preferences modeled by an individual (Bandura, 1986). Thus, it follows that parents' own positive feelings about their ethnicity is modeled to youth over time, which informs youths' own affect about their ethnicity. To my knowledge, no studies to date have examined this direct association between parental ethnic identity affirmation and adolescent ethnic identity affirmation. However, prior empirical work has supported the notion that ethnic identity affirmation is a contextually-driven process that is different from ethnic identity exploration and ethnic identity resolution, and is not impacted directly by familial ethnic socialization as are ethnic identity exploration and ethnic identity resolution. For example, in a study that included a diverse sample of adolescents (including Latino youth) aged 15- to 18- years old, higher levels of adolescent reports of familial ethnic socialization were associated with higher levels of ethnic identity exploration and ethnic identity resolution, but not ethnic identity affirmation (Umaña-Taylor et al., 2004). In another study of Latino adolescents from immigrant (i.e., Mexico, Guatemala, and El Salvador) families, adolescent reports of familial ethnic socialization were positively correlated with ethnic identity exploration and ethnic identity resolution, but not ethnic identity affirmation (Supple et al., 2006). Finally, a study of Latino (72% identified as Mexican) adolescents found that adolescent reports of familial ethnic socialization were positively related to ethnic identity exploration and ethnic identity resolution, but the relation between familial ethnic socialization and ethnic

identity affirmation was context-dependent, such that familial ethnic socialization was positively associated with ethnic identity affirmation only among youth who appeared more Latino, less European, and who had darker skin (Gonzales-Backen & Umaña-Taylor, 2011). Together, these findings with different samples of Latino youth support the notion that ethnic identity affirmation functions differently than ethnic identity resolution and ethnic identity exploration, and that the links between familial ethnic socialization and ethnic identity affirmation may not be as direct as they appear to be for familial ethnic socialization and ethnic identity exploration and for familial ethnic socialization and ethnic identity resolution. Given this prior work and conceptual notions from social cognitive theory (Bandura, 1986), in the current study it was hypothesized that mothers' higher levels of ethnic identity affirmation would be directly associated with increases in adolescents' ethnic identity affirmation.

Another consideration when examining the relation between ethnic socialization and ethnic identity is the person reporting ethnic socialization. Studies to date have tended to focus exclusively on parental reports of the ethnic socialization they provided their youth (e.g., Knight, Cota, et al., 1993; Quintana & Vera, 1999) or adolescent reports of the ethnic socialization that they received from their family (e.g., Supple et al., 2006; Umaña-Taylor et al., 2004), but not both. To my knowledge, only one study explored the relation between ethnic socialization and ethnic identity using a multiple-informant design (Hughes, Hagelskamp, Way, & Foust, 2009). Hughes and colleagues examined the role of

maternal reports of socialization mothers provided adolescents, and adolescents' reports of the socialization provided by both of their parents (i.e., mothers and fathers) in shaping ethnic-racial identity among 170 sixth-graders who identified themselves as Black, Puerto Rican, Dominican, or Chinese. Results indicated that mothers' reports of maternal ethnic socialization were positively and significantly associated with adolescents' reports of parental ethnic socialization, but only adolescents' reports of parental ethnic socialization predicted their ethnic identity processes. The current study examined whether similar patterns emerged with an older developmental cohort, or whether both mothers' reports of the ethnic socialization they perceived providing adolescents and adolescents' reports of the ethnic socialization they perceived experiencing from family members (including their mothers) were positively associated with increases in adolescents' ethnic identity exploration and resolution.

Familial Ethnic Socialization as a Mediator of Parents' Enculturation and Adolescents' Ethnic Identity

Given that various dimensions of parental enculturation have been found to be related to familial ethnic socialization, and that familial ethnic socialization has been found to be related to adolescent ethnic identity exploration and ethnic identity resolution, it is possible that the mechanism by which parental enculturation behaviors, identity, and values inform youths' ethnic identity exploration and ethnic identity resolution is through an active ethnic socialization process. Specifically, it was hypothesized that maternal ethnic socialization and

familial ethnic socialization would mediate the association between parental enculturation and adolescents' ethnic identity exploration and ethnic identity resolution.

Indeed, one study examined this mediational process in children and found support for this notion. Specifically, Knight, Bernal, and colleagues (1993) found that maternal teaching about culture fully mediated the relation between family background variables (i.e., comfort with Mexican and American culture and generational status) and children's (aged 6- to 10- years old) ethnic identity (i.e., ethnic constancy, self-identification, knowledge, preferences, and role behaviors). These findings suggest that parents influence their children's ethnic identity formation through an active socialization process. To my knowledge, only one study has examined this mediational process with adolescents. Knight and colleagues (2011) examined the transmission of cultural values from parents to adolescents via parental ethnic socialization and adolescent ethnic identity. Their findings indicated that mothers' Mexican American values were positively associated with maternal ethnic socialization, which was in turn positively associated with adolescents' ethnic identity exploration and ethnic identity resolution one year later. This study moved beyond cross-sectional work by including data measured across two time points, as well as assessed the role of parental values and parental ethnic socialization in younger adolescents' (i.e., 5th – 7th grade) ethnic identity development. Thus, the current study extended this prior work with children and early adolescents by focusing on these associations

in middle to late adolescence and examining how these processes unfold among an at-risk group of adolescent mothers.

CURRENT STUDY

Based on major tenets of bioecological theory, which posit that individuals develop through interactions with those in their immediate environment, and these interactions vary depending on individual characteristics of the person(s) involved (Bronfenbrenner & Morris, 2006), the current study hypothesized that mothers' enculturation values (i.e., familism), behaviors (i.e., involvement with Mexican culture), and ethnic identity (i.e., exploration and resolution) would be positively associated with increases in mothers' reports of maternal ethnic socialization and increases in adolescents' reports of familial ethnic socialization one year later (i.e., Wave 2). Additionally, higher levels of maternal ethnic socialization and familial ethnic socialization at Wave 2 were expected to be associated with increases in adolescents' ethnic identity exploration and ethnic identity resolution one year later (i.e., Wave 3). Furthermore, based on notions from social cognitive theory (Bandura, 1986), it was hypothesized that mothers' ethnic identity affirmation at Wave 1 would be positively associated with increases in adolescents' ethnic identity affirmation at Wave 3. Finally, ethnic identity has been conceived as a developmentally-driven process (e.g., Phinney, 1992; Umaña-Taylor, et al., 2004), and this notion has been empirically supported with work on adolescents (Pahl & Way, 2006; Umaña-Taylor et al., 2009); therefore, because the process by which ethnic socialization is associated with ethnic

identity may vary by adolescents' age, adolescents' age at Wave 1 was included as a control variable.

METHOD

Procedure

Data for the current study were taken from a longitudinal study focused on the impact of parenting and support on Mexican-origin adolescent mothers' psychosocial functioning (Umaña-Taylor, Updegraff, & Gonzales-Backen, 2011). Families for the study were recruited from community agencies in a Southwestern metropolitan area. Adolescents had to be of Mexican-origin, 15 to 18 years old, currently pregnant, not legally married, and have a mother figure (e.g., biological mother, grandmother, aunt)² who was also willing to participate. Adolescents and mothers participated in face-to-face in-home interviews in which all questions were read aloud. The current study utilized data from the first three waves of the study (Wave 1, Wave 2, and Wave 3) to examine mothers' enculturation, maternal ethnic socialization, familial ethnic socialization, and adolescents' ethnic identity. Each participant was interviewed separately when the adolescent was in her first trimester of pregnancy (Wave 1), when her child was 10 months of age (Wave 2), and when her child was 24 months of age (Wave 3). Interviews were in Spanish or English, based on participant preference. A majority of adolescents' interviews were in English (61%), and 69% of mothers' interviews were in

² Because 88% of mother figures were adolescents' biological mothers, the term "mother" was used for ease of discussion.

Spanish. Each participant received \$25 for participation at Wave 1, \$30 at Wave 2, and \$35 at Wave 3.

Participants

The current sample included 193 Mexican-origin adolescents and their mothers from the larger sample of 204 dyads. The original sample included four mothers who each participated twice because they had two adolescent daughters who were enrolled in the study (i.e., duplicate mothers). The second interview for each of these four mothers was excluded from the current study to reduce the possibility of practice effects; thus reducing the sample by 4 mother participants. Next, there were 7 mothers in the original sample who were not Latina. Given that the current study is focused on cultural processes, these 7 mothers were excluded. Because the current study focused on family processes, the adolescents who participated with the mothers omitted from the sample were also excluded from analyses, resulting in an analytic sample of 193 mother-adolescent dyads.

At Wave 1, adolescents in the current study were an average of 16.20 years old ($SD = .982$, range = 15-19), and 30.86 weeks pregnant ($SD = 4.47$, range = 23-40). Most adolescents were attending school (59%), and in a romantic relationship with the biological father of their baby (67%). A majority of adolescents reported that they lived with their mothers (87%) in households with an average of 4.85 people in addition to themselves ($SD = 2.45$, range = 1-16). On average, mothers were 40.80 years old ($SD = 7.06$, range = 21-78), and were married or cohabiting (65%). There was a great deal of variability in mothers'

highest level of education. In particular, 46% of mothers had less than a high school education; 27% attended high school but did not graduate; and 27% completed high school, obtained their General Equivalency Diploma (GED), or had some education beyond high school; specifically, 2% had a bachelor's degree. With respect to nativity, 62% of adolescents and 27% of mothers were U.S. born.

Measures

Nativity. At Wave 1, adolescents were asked to report their country of birth. The variable nativity was coded as 0 = Foreign born, 1 = U.S. born.

Enculturation behaviors: Mexican involvement. Mothers' responses to the Mexican orientation subscale of the Acculturation Rating Scale for Mexican Americans – II (ARSMA; Cuéllar, Arnold, & Maldonado, 1995) at Wave 1 was utilized to assess their involvement with Mexican culture. The Mexican orientation subscale of the ARSMA consists of 17 items scored on a 5-point Likert scale ranging from *Not at all* (1) to *Extremely often or almost always* (5). The items were scored so that higher scores indicate higher engagement in Mexican-oriented behaviors. Sample items include “I enjoy speaking Spanish” and “I associate with Mexicans and/or Mexican Americans.” The Mexican orientation subscale has obtained an alpha coefficient of .92 with Latina mothers (Perez Rivera & Dunsmore, 2011). Cronbach's alpha in the current study for mothers was .84 for the English version and .78 for the Spanish version.

Enculturation values: Familism values. Mothers' responses to the familism subscale of the Mexican American Cultural Values Scale (MACVS;

Knight et al., 2010) at Wave 1 was utilized to assess their endorsement of familism values. The MACVS is a self-report instrument and its familism subscale consists of 16 items scored on a 5-point Likert scale ranging from *Strongly disagree* (1) to *Strongly agree* (5). The items were scored so that higher scores indicate higher levels of familism values. Sample items include “Parents should teach their children that the family always comes first” and “It is always important to be united as a family.” The familism subscale has obtained an alpha coefficient of .84 with Mexican mothers (Calderón-Tena, Knight, & Carlo, 2011). Cronbach’s alpha in the current study for mothers was .82 for the English version and .80 for the Spanish version.

Familial ethnic socialization. Adolescents’ and mothers’ responses to the 12-item Familial Ethnic Socialization Measure (FESM, Umaña-Taylor, 2001; Umaña-Taylor et al., 2004) at Wave 1 and Wave 2 was used to assess adolescents’ perceptions of the ethnic socialization provided by their family (including their mothers), and mothers’ perceptions of the ethnic socialization they provided their daughters. The FESM is a self-report instrument in which items were scored on a 5-point Likert scale ranging from (1) *Not at all* to (5) *Very Much*. The measure assesses overt, intentional socialization (e.g., “My family talks about how important it is to know about my ethnic/cultural background” for adolescents or “We talk about how important it is to know about her ethnic/cultural background” for mothers) and covert, unintentional socialization (e.g., “Our home is decorated with things that reflect my ethnic/cultural

background” for adolescents or “My home is decorated with things that reflect her ethnic/cultural background” for mothers) and items were scored so that higher scores indicate higher levels of familial ethnic socialization (for adolescents’ reports), or higher levels of maternal ethnic socialization (for mothers’ reports). The FESM has obtained an alpha coefficient of .94 with high-school Latino (72% Mexican-origin) adolescents (Umaña-Taylor et al., 2009). For adolescents, Cronbach’s alpha at Wave 1 was .88 for the English version and .90 for the Spanish version. For adolescents, Cronbach’s alpha at Wave 2 was .90 for the English version and .88 for the Spanish version. For mothers, alpha at Wave 1 was .93 for the English version and .87 for the Spanish version. For mothers, alpha at Wave 2 was .94 for the English version and .84 for the Spanish version.

Ethnic identity. Mothers’ responses at Wave 1 and adolescents’ responses at Wave 2 and Wave 3 on the Ethnic Identity Scale (EIS; Umaña-Taylor et al., 2004) were utilized to assess their ethnic identity exploration (7 items), ethnic identity resolution (4 items), and ethnic identity affirmation (6 items). The EIS is a self-report instrument that consists of 17 items scored on a 4-point Likert scale ranging from (1) *Does not describe me at all* to (4) *Describes me very well*. Each of the three subscales were scored individually, with sample questions including, “I have attended events that have helped me learn more about my ethnicity” (ethnic identity exploration), “I am clear about what my ethnicity means to me” (ethnic identity resolution), and “my feelings about my ethnicity are mostly negative” (ethnic identity affirmation). Negatively worded items were reverse

scored so that higher scores indicate higher levels of ethnic identity exploration, ethnic identity resolution, and ethnic identity affirmation. The subscales of the EIS have obtained alpha coefficients of .73, .86, and .76 for the ethnic identity exploration, ethnic identity resolution, and ethnic identity affirmation subscales with Mexican adolescents (Knight et al., 2011). At Wave 1, Cronbach's alpha in the current study was .81, .88, and .70 for the English version, and .64, .77, and .80 for the Spanish version of mothers' ethnic identity exploration, ethnic identity resolution, and ethnic identity affirmation, respectively. For adolescents, Cronbach's alpha at Wave 2 was .83, .82, and .71 (English) and .72, .83, and .78 (Spanish) for ethnic identity exploration, ethnic identity resolution, and ethnic identity affirmation, respectively. At Wave 3, Cronbach's alpha was .79, .82, and .79 (English), and .70, .91, and .91 (Spanish), for adolescents' ethnic identity exploration, ethnic identity resolution, and ethnic identity affirmation, respectively.

RESULTS

Analytic Approach

Missing data. The hypothesized model was tested with path analysis via structural equation modeling (SEM) using Mplus version 6.1 (Muthén & Muthén, 2010). Missing data for the analytic sample of 193 dyads were handled using multiple imputation. Prior to utilizing multiple imputation, we assessed the amount of missing data on each variable. This indicated that there was no missing data on any variables measures at Wave 1, no more than 12% missing data on any

variable measured at Wave 2, and no more than 18% missing data on any variable measured at Wave 3. Utilizing t-tests, participants with missing data were compared to participants with no missing data. Results indicated that there were not any significant differences ($p > .05$) between these groups on any study variables, except adolescents' nativity. In particular, those who were U.S.-born were less likely to have complete data than foreign-born adolescents; however, nativity was not imputed because there was complete data on this variable. Furthermore, imputations were conducted using information from all study variables, including adolescents' nativity; therefore, the imputed data were created taking into account adolescents' nativity. Thus, we proceeded with multiple imputation to handle missing data. Based on recommendations to reduce standard error, 20 datasets were imputed (Graham, Olchowski, & Gilreath 2007). Imputations were generated at the item level for all measures in the current study; in addition, items from additional measures not included in analyses were included to reduce bias and improve power (e.g., respect values, mothers' nativity). Using the TYPE = Imputation command in Mplus (Muthén & Muthén, 2010), information from all 20 imputed datasets was averaged together for analyses.

Model specification. Paths were specified in MPlus to examine the indirect effects of mothers' enculturation values (i.e., familism), behaviors (i.e., involvement with Mexican culture), and identity (i.e., ethnic identity exploration and ethnic identity resolution) at Wave 1 on adolescents' ethnic identity

exploration and ethnic identity resolution at Wave 3 via mothers' reports of maternal ethnic socialization and adolescents' reports of familial ethnic socialization at Wave 2. In addition, the direct path between mothers' ethnic identity affirmation at Wave 1 and adolescents' ethnic identity affirmation at Waves 2 and 3 were specified in the model. Further, adolescents' ethnic identity exploration, ethnic identity resolution, and ethnic identity affirmation at Wave 2 were included as predictors of ethnic identity exploration, resolution, and affirmation at Wave 3 to allow for the prediction of increases in ethnic identity over time as a function of maternal ethnic socialization and familial ethnic socialization. Additionally, mothers' reports of maternal ethnic socialization and adolescents' reports of familial ethnic socialization at Wave 1 were included as predictors of mothers' and adolescents' reports of these constructs at Wave 2 to allow for the prediction of increases in maternal ethnic socialization and familial ethnic socialization over time as a function of mothers' enculturation. Furthermore, consistent with prior theory and empirical work (e.g., Gonzales-Backen et al., 2011; Supple et al., 2006) adolescents' reports of familial ethnic socialization and mothers' reports of maternal ethnic socialization at Wave 1 were modeled as predictors of adolescent's ethnic identity exploration and ethnic identity resolution at Wave 2. In addition, the residuals for the following pairs of variables were specified in the model to be correlated given that prior work has found a positive association between these variables (e.g., Hughes et al., 2009; Umaña-Taylor et al., 2004): mothers' reports of maternal ethnic socialization and

adolescents' reports of familial ethnic socialization; adolescent' reports of familial ethnic socialization and ethnic identity exploration; adolescents' reports of familial ethnic socialization and ethnic identity resolution; adolescents' ethnic identity exploration and ethnic identity resolution; adolescents' ethnic identity exploration and ethnic identity affirmation; and adolescents' ethnic identity affirmation and ethnic identity resolution. Adolescents' age was included as a control by modeling it as a predictor of ethnic identity exploration, resolution, and affirmation at Wave 3; adolescents' nativity was tested as a moderator of all associations using multigroup modeling techniques. Correlations, means, and standard deviations for all study variables are presented in Table 1.

Multigroup model. Research questions were tested using a multigroup modeling approach via path analysis in Mplus (Muthén & Muthén, 2010), with adolescents' nativity as the grouping variable. Nested model comparisons were used to test whether associations between variables varied as a function of adolescents' nativity. In this approach, a more constrained model is compared to a nested, less constrained model by examining a chi square difference test, and fit indices. The less constrained model is deemed a better fitting model if there is a significant difference in chi square using the chi square difference test and a comparison of fit indices demonstrates that the less constrained model is a better fit. If the less constrained model is a better fitting model, this would indicate that there is a significant difference between groups on the paths that were

unconstrained and the path coefficients should not be constrained to be invariant (i.e., equal) across groups.

Three primary fit indices were used to examine model fit: the comparative fit index (CFI), the root-mean-square-error of approximation (RMSEA), and the standardized root-mean-square residual (SRMR). Model fit was considered to be good if the CFI was greater than or equal to .95, the RMSEA was less than or equal to .06, and the SRMR was less than or equal to .08 (Hu & Bentler, 1999).

Testing the Hypothesized Model

The hypothesized model examined whether mothers' enculturation characteristics were related to adolescents' ethnic identity via maternal ethnic socialization and familial ethnic socialization (see Figure 1). Fit indices for an initial unconstrained model indicated a good fit [$\chi^2(114) = 131.40, p > .05$; CFI = .95; RMSEA = .04 (.00 - .07); SRMR = .06].

To test whether nativity moderated the hypothesized associations, a model that constrained all path coefficients to be equal across groups (i.e., fully constrained model) was tested. In a second model, all paths coefficients were allowed to vary across groups (i.e., unconstrained model). Then, the fully constrained model and the unconstrained model were compared using a chi square difference test and examining model fit indices for both models. The chi-square difference test comparing these two models was not significant [$\Delta \chi^2(\Delta df = 32) = 40.81, p = .14$]; however, fit indices for the unconstrained model were better than

for the fully constrained model. Model fit for the fully constrained model was χ^2 (146) = 172.21, $p > .05$; CFI = .92; RMSEA = .04 (.00 - .07); SRMR = .08, while model fit for the unconstrained model was χ^2 (114) = 131.40, $p > .05$; CFI = .95; RMSEA = .04 (.00 - .07); SRMR = .06. Previous simulation studies have indicated that a change in the CFI that is greater than .01 indicates that there is a significant difference between models (Cheung & Rensvold, 2002). The change in CFI from the fully constrained to unconstrained model was .03, and because the CFI was higher for the unconstrained model than the fully constrained model, we did not adopt the fully constrained model as our final model.

To determine which paths may be contributing to a poorer fit for the fully constrained model, modification indices for the fully constrained model were examined, which suggested that modifying the path from mothers' reports' of maternal ethnic socialization to adolescents' ethnic identity exploration for both U.S.-born and foreign-born groups would improve the fit of this model (modification index value = 11.30). This modification was implemented because it was consistent with theoretical and conceptual hypotheses regarding the model, which were that paths in the model may be moderated by adolescents' nativity. Then, this partially constrained model, which allowed the path from mothers' reports' of maternal ethnic socialization to adolescents' ethnic identity exploration to be freely estimated across nativity groups, was compared to the fully constrained model. The chi-square difference test comparing these two models was significant [$\Delta \chi^2$ ($\Delta df = 1$) = 12.96, $p < .001$], and the model fit for the

partially constrained model was better than for the fully constrained model. Model fit for the fully constrained model was $\chi^2(146) = 172.21, p >.05$; CFI = .92; RMSEA = .04 (.00 - .07); SRMR = .08, while model fit for the partially constrained model was $\chi^2(145) = 159.25, p >.05$; CFI = .96; RMSEA = .03 (.00 - .06); SRMR = .07. Because the two criteria used to determine whether the partially constrained model was a better fit than the fully constrained model (i.e., the chi square difference test was significant and comparison of fit indices suggested better model fit for the partially constrained model) were met, the partially constrained model was adopted as the final model (see Figure 1 for final unstandardized path estimates and significance levels for foreign-born and U.S.-born adolescents).

Final partially constrained model. Consistent with hypotheses regarding the associations between mothers' enculturation and maternal ethnic socialization, results of the final model indicated that mothers' familism values were positively associated with increases (i.e., after controlling for prior levels of maternal ethnic socialization) in their own reports of the ethnic socialization that they provided their daughters ($\beta = .31, p <.05$). However, inconsistent with expectations, none of the other indices of mothers' enculturation (i.e., involvement with Mexican culture, ethnic identity exploration, or ethnic identity resolution) were significantly associated increases in mothers' reports of maternal ethnic socialization or increases in adolescents' reports of familial ethnic socialization.

In terms of the associations between ethnic socialization and ethnic identity, the hypotheses were partially supported. First, as predicted, adolescents' reports of familial ethnic socialization at Wave 2 were positively associated with increases in ethnic identity exploration ($\beta = .31, p <.001$) and increases in ethnic identity resolution ($\beta = .28, p <.001$) at Wave 3. Further, mothers' reports of maternal ethnic socialization at Wave 2 were significantly associated with adolescents' reports of ethnic identity exploration at Wave 3, such that higher levels of maternal ethnic socialization predicted increases in adolescent ethnic identity exploration for foreign-born adolescents ($\beta = .22, p <.01$), but decreases in adolescent ethnic identity exploration for U.S.-born adolescents ($\beta = -.24, p <.01$). However, contrary to expectations, mothers' reports of maternal ethnic socialization at Wave 2 were not associated with increases in adolescents' ethnic identity resolution at Wave 3 ($\beta = -.08, ns$).

Finally, regarding the association between mothers' ethnic identity affirmation and adolescents' ethnic identity affirmation, as hypothesized, mothers' ethnic identity affirmation at Wave 1 was positively associated with increases in adolescents' ethnic identity affirmation at Wave 3 ($\beta = .23, p <.001$).

Testing Mediation

Results from the final partially constrained model suggested that mothers' familism values were associated with adolescents' ethnic identity exploration via mothers' reports of maternal ethnic socialization. In order to formally test for mediation, a product of the coefficients method was utilized. In this method, the

MODEL CONSTRAINT option in MPlus is used to specify the direct and indirect parameters, and test the mediated effect. Results using this method indicated that the mediated effect was not significant for foreign-born adolescents ($\beta = .06, ns$) or U.S.-born adolescents ($\beta = -.07, ns$). However, simulation studies have indicated that among existing tests of mediation, the product of the coefficients test requires a large sample size (i.e., sample of approximately more than 196) to achieve .80 power (Fritz & MacKinnon, 2007). Therefore, to determine whether alternative methods that do not require larger sample sizes also result in insignificant mediation, the RMediation web application is suggested to compute confidence intervals for the mediated effect (Tofighi & MacKinnon, 2011). Using this method, mediation is deemed to be significant if the confidence interval does not contain zero. With this approach, results indicated that the indirect effect was significant for U.S.-born adolescents (CI = $-.75, -.002$), but was not significant for foreign-born adolescents (CI = $-.004, .18$).

Finally, the joint significance test was utilized, which is a less stringent test of mediation (i.e., does not require a large sample size to detect power). With this approach, mediation exists when separate tests of each path (α and β) in the mediated effect are jointly significant (Cohen & Cohen, 1983, p. 366; MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002). With this approach, results indicated that significant mediation existed for U.S. born adolescents because the α path was significant ($\alpha = .31, p < .05$), and the β path was significant ($\beta = -.24, p < .01$). In addition, according to the joint significant test, significant

mediation existed for foreign-born adolescents because the α path was significant ($\alpha = .31, p < .05$), and the β path was significant ($\beta = .22, p < .05$).

DISCUSSION

Adolescent mothers are at risk for negative outcomes, such as decreased self-esteem and increased depressive symptoms (e.g., Whitman et al., 2001) and *Mexican-origin* females, in particular, are at heightened risk for becoming adolescent mothers (National Vital Statistics Report, 2005). Considering this combined high risk for pregnancy and maladjustment, it is essential to focus on normative processes that may be associated with positive outcomes for Mexican-origin adolescent mothers. Given that previous work has established that ethnic identity has been associated with various indices of well-being for ethnic minority youth not sampled for being adolescent mothers (e.g., Schwartz et al., 2007), the current study examined the process through which mothers' cultural characteristics and familial and maternal ethnic socialization informed Mexican-origin adolescent mothers' ethnic identity. Findings indicated that mothers' greater endorsement of familism values was associated with increases in maternal ethnic socialization and, in turn, increases in ethnic identity exploration for foreign-born adolescents, and decreases in ethnic identity exploration for U.S.-born adolescents. On the other hand, as adolescents reported greater familial ethnic socialization they tended to demonstrate increases in ethnic identity exploration and ethnic identity resolution, a finding that was true for both nativity groups. Finally, consistent with tenets of social cognitive theory (Bandura, 1986),

as mothers' reported higher levels of ethnic identity affirmation, adolescents demonstrated increases in their ethnic identity affirmation over time. Below, findings are discussed with special attention to the processes underlying increases in ethnic identity, and the implications of these findings for future research and interventions that aim to facilitate positive outcomes for adolescent mothers.

The Role of Familism in Socialization

As hypothesized, and consistent with notions from bioecological theory (Bronfenbrenner & Morris, 2006), which suggests that individuals' characteristics inform their proximal processes, our findings indicated that mothers' greater endorsement of familism values was associated with increases in their self-reported ethnic socialization of their adolescent daughters. This finding is consistent with previous work with Mexican-origin families, which found a concurrent association between mothers' familism values and their reports of the ethnic socialization they provided their early adolescents (i.e., 9-12 year olds; Knight et al., 2010). The current study expanded on this work by demonstrating that familism continues to play an important role in informing mothers' ethnic socialization efforts with their daughters into mid to late adolescence.

Additionally, because we controlled for previous levels of maternal ethnic socialization, our findings indicate that greater endorsement of familism values actually predicts *increases in* maternal ethnic socialization a year later. This builds on previous cross-sectional work by indicating that there is not only a concurrent association between mothers' familism and the ethnic socialization

they provide their daughters, but that this association exists in a longitudinal manner, even after accounting for mothers' initial levels of familism.

Following recommendations from scholars to examine multiple indices of enculturation (i.e., Gonzales et al., 2002), we included measures of mothers' enculturation behaviors, identity, and values, and found that in predicting increases in maternal ethnic socialization, *values* emerged as especially important. Contrary to our expectations, however, mothers' involvement in Mexican-culture, ethnic identity exploration, and ethnic identity resolution were not associated with increases in their ethnic socialization efforts with their adolescent daughter. It is important to note that these indices may be important correlates of socialization, but that in predicting *increases in* maternal ethnic socialization, our findings suggested that mothers' familism values are particularly salient. Additionally, one study with Mexican-origin adolescents found that individuals' ethnic identity exploration and resolution preceded internalization of cultural values (Knight et al., 2011). Thus, it is possible that in the current study, mothers' ethnic identity exploration and resolution were not associated directly with their ethnic socialization efforts because their influence may come into play earlier in the process (i.e., mothers' ethnic identity may inform mothers' familism values, which then inform mothers' ethnic socialization efforts). It will be important for future studies to examine this possibility.

Multiple Reports of Familial Ethnic Socialization and Adolescents' Ethnic Identity Exploration and Resolution

Previous work has established that familial ethnic socialization is an important predictor of Latino adolescents' ethnic identity exploration and ethnic identity resolution (e.g., Supple et al., 2006; Umaña-Taylor et al., 2009); however, the majority of this work has tended to be cross-sectional and include only one individual's report of familial ethnic socialization. Our findings contributed to this literature by examining this association longitudinally, as well as including multiple reporters' accounts on ethnic socialization experiences. Specifically, this study examined adolescents' perceptions of the ethnic socialization they received from family members and mothers' perceptions of the ethnic socialization they provided to their daughters. Grounded in bioecological theory (Bronfenbrenner & Morris, 2006), our hypotheses were supported regarding adolescents' reports of familial ethnic socialization, in that familial ethnic socialization was associated with increases in adolescents' ethnic identity exploration and ethnic identity resolution one year later. This is an important finding because not only did it indicate that adolescents' perceptions of ethnic socialization from family members is associated with adolescents' ethnic identity even after controlling for previous levels of ethnic identity, but it also suggests that familial ethnic socialization plays such an important role that it is still influential among adolescents experiencing the non-normative stressors associated with pregnancy and transitioning to parenthood during adolescence. It is possible that the process of ethnic socialization is particularly salient for adolescent mothers because, as they transition to parenthood, issues related to socialization of their newborn

children may be particularly relevant; thus, they may be especially receptive to socialization efforts from their own mothers. Given that adolescent mothers have been found to be at risk for negative outcomes such as decreased self-esteem (Whitman et al., 2001), and that ethnic identity has been linked to positive outcomes such as self-esteem (Schwartz et al., 2007), this finding underscores the importance of family members' ethnic socialization efforts for Mexican-origin adolescent mothers. In addition, our findings suggest that including components that educate families about the value of socializing youth about ethnicity into programs for Mexican-origin teen mothers would be valuable in order to facilitate ethnic identity exploration and resolution processes.

In terms of mothers' reports of the ethnic socialization they provided their adolescent daughters, our findings indicated that the association between ethnic socialization and adolescents' ethnic identity exploration varied by adolescents' nativity (i.e., U.S.-born or foreign-born). In fact, this is the only instance in which nativity moderated an association in our model. Consistent with our hypotheses, as mothers reported higher levels of maternal ethnic socialization, foreign-born adolescents demonstrated increases in their ethnic identity exploration. However, contrary to expectations, for U.S.-born adolescents, as mothers reported higher maternal ethnic socialization, adolescents demonstrated decreases in ethnic identity exploration. It is possible that this finding emerged due to differences in the way in which ethnic socialization messages are provided and received, and who is actually providing the socialization. In the current sample, a majority of

U.S.-born adolescents had mothers born in Mexico; thus, the culture-related tension between mothers and daughters in the dyads with U.S. born daughters and Mexico-born mothers may influence the way in which maternal ethnic socialization is received by adolescents. Indeed, previous work suggests that Mexican-origin adolescents often become involved in U.S. mainstream culture at a faster rate than their parents, which creates culture-specific conflict in their relationship (see Telzer, 2010 for a review). It is possible that, for U.S. born daughters, high ethnic socialization efforts by mothers may result in daughters' resistance of ethnic socialization (evidenced by lower levels of exploration) due to conflict in the mother-daughter relationship resulting from cultural differences. Overall, this finding suggests that for U.S.-born adolescents, greater familial involvement in ethnic socialization efforts may be better because if socialization is coming only from mothers, U.S.-born adolescents may resist it and actually exhibit lower levels of ethnic identity exploration. However, when these same young women (i.e., U.S. born adolescent mothers) reported that their family, in general, was doing more to socialize them about ethnicity, this was associated with higher levels of ethnic identity exploration. For foreign-born adolescents, however, who may not be experiencing this cultural tension with their mothers, the relations between familial ethnic socialization and ethnic identity exploration were in the expected direction.

Also contrary to our expectations, mothers' reports of ethnic socialization were not associated with ethnic identity resolution for foreign-born or U.S.-born

adolescents. This finding is consistent with limited work that included multiple reporters, and found that only adolescents' reports, and not mothers' reports, of ethnic socialization predicted adolescents' ethnic identity processes (Hughes et al., 2009). It is possible that only mothers socializing their daughters may not be enough for increases in adolescents' ethnic identity resolution to occur, but that instead it is necessary for adolescents to perceive that the whole family, in general, is providing ethnic socialization. Ethnic identity resolution may be a more involved process for adolescents because it involves actually figuring out what ethnicity means to them. Thus for this process, it seems that there is a cumulative effect, such that the more people providing ethnic socialization, the better in terms of experiencing increases in adolescents' ethnic identity resolution. It would be valuable for future studies to assess multiple family members' (e.g., fathers, siblings, etc.) perceptions of the ethnic socialization that they provide adolescents in order to ensure that this association did not occur because familial ethnic socialization and ethnic identity were both reported by adolescents.

The Direct Association between Mothers' Ethnic Identity Affirmation and Daughters' Ethnic Identity Affirmation

Previous work has indicated that unlike ethnic identity exploration and ethnic identity resolution, familial ethnic socialization has not been found to be associated with Latino adolescents' ethnic identity affirmation (e.g., Umaña-Taylor et al., 2004; Supple et al., 2006). Our findings added to this body of

literature by noting that mothers' own ethnic identity affirmation was positively associated with increases in adolescents' ethnic identity affirmation two years later, and this was not mediated by mothers' ethnic socialization. This is consistent with our hypotheses based on social cognitive theory (Bandura, 1986), which proposes that individuals can learn from others via modeling. This suggests that mothers may model their own positive feelings about their ethnicity (i.e., ethnic identity affirmation), which adolescents may learn and internalize for themselves. Thus, family members' efforts for ethnic identity affirmation may largely be mirrored to adolescents via their own ethnic identities. However, given that the current study was the first, to our knowledge, to examine whether mothers' ethnic identity affirmation is directly associated with increases in adolescents' ethnic identity affirmation, particularly among Mexican-origin adolescent mothers and their mothers, future work is needed to examine whether this association is indeed due to mothers' modeling these positive feelings to adolescents, or whether this relation is due to a third, unmeasured, variable that is simultaneously informing mothers' affirmation and increases in adolescents' affirmation. For example, it is possible that a contextual variable (e.g., neighborhood) may be positively associated with mothers' ethnic identity affirmation and adolescents' ethnic identity affirmation over time, and is responsible for initial higher levels of mothers' ethnic identity affirmation and, simultaneously, for increases in adolescents' ethnic affirmation. As such, future work would benefit from a more direct examination of the modeling hypothesis,

such as by asking adolescents the extent to which their feelings about their ethnicity are informed by what they perceive their mothers' feelings to be about her ethnicity.

Establishing that this association is due to modeling would contribute to previous work that has identified mothers as particularly influential in the lives of adolescent mothers (Brooks-Dunn & Chase-Lansdale, 1995) by demonstrating that an additional way in which mothers are influential is by modeling positive feelings regarding their ethnicity, which perhaps results in daughters internalizing these positive messages about their ethnicity. This is particularly important for adolescent mothers because affirmation is a component of ethnic identity that has consistently emerged in previous work as protective in buffering against negative effects of risk factors (e.g., Iturbide, Raffaelli & Carlo, 2009, Romero & Roberts, 2003). In addition, this would have implications for interventions focused on promoting positive well-being for Mexican-origin adolescent mothers, by demonstrating that it may be possible to assist adolescents develop their ethnic identity affirmation by targeting their mothers, and helping mothers to build their ethnic identity affirmation, which may then be modeled to adolescents.

The Mediating Role of Socialization

Taken together, our findings demonstrated that there were various mechanisms working to inform increases in Mexican-origin adolescent mothers' ethnic identity. First, mothers' ethnic identity affirmation when daughters were pregnant was associated with daughters' ethnic identity affirmation two years

after they gave birth. Also, before their grandchild was born, mothers' strong endorsement of familism values predicted increases in the ethnic socialization that they provided to their daughters 10 months after their grandchild was born. Furthermore, as adolescents perceived greater socialization from family members when their child was 10 months, they demonstrated increases in their ethnic identity exploration and resolution by the time their child reached 24 months of age. Similarly, as mothers perceived providing greater ethnic socialization to their daughters when their grandchild was 24 months, foreign-born adolescents demonstrated increases in their ethnic identity exploration, and U.S.-born adolescents demonstrated decreases in their ethnic identity exploration.

To formally test whether the links between mothers' familism and adolescents' ethnic identity exploration occurred via mothers' reports of socialization, we conducted various mediation tests (i.e., products of coefficients, confidence intervals, and joint significant). Our findings suggest that we need a larger sample size to detect significant mediation. Specifically, the products of the coefficients test, which has been shown to require the largest sample size (Fritz & MacKinnon, 2007) indicated non-significant mediation for both groups, while the next less stringent test (i.e., RMediation web application with confidence intervals) indicated significant mediation for U.S.-born adolescents, which was the larger group (i.e., 173 adolescents), and non-significant mediation for foreign-born adolescents, which was the smaller group (i.e., 73 adolescents). On the other hand, the joint significance test, the least stringent test of mediation (i.e., does not

require a large sample size to detect power), indicated that significant mediation existed for both groups. Overall, our mediation tests indicate that it is likely that mothers' familism values inform adolescents' ethnic identity exploration via their active socialization efforts with their daughters; however, it is necessary for this process to be examined further using sample sizes that are large enough to achieve enough power to detect significant mediation.

Strengths, Limitations, and Future Directions

The current study included several strengths but also limitations that provide direction for future research. First, one contribution of the current study was that we were able to examine the processes underlying adolescent mothers' ethnic identity development from 10 months prenatal through 24 months postpartum. In particular, because of the longitudinal nature of the study, we were able to examine *increases* in ethnic identity by controlling for previous levels of ethnic identity. However, because our study included a very specific sample of Mexican-origin adolescent mothers, these findings may not generalize to other groups of adolescents. The families in the current study were recruited from a large metropolitan region of the Southwestern United States, in which their ethnicity is the majority of the Latino population. Previous work has noted important differences in adolescents' ethnic identity development based on their environmental context, such that ethnic identity development varies among adolescents living in an area in which they are the numerical majority versus minority (Umaña-Taylor, 2004). In particular, it is possible that in regions in

which Mexican-origin individuals are not a numerical majority of the population, parents may be more hesitant to socialize their youth, and/or youth's ethnic identity processes may be impeded; therefore, it will be important for future researchers to examine this process in other regions of the United States to determine whether findings generalize to other settings.

Another strength of the current study was that we examined whether the process underlying adolescents' ethnic identity development varied by adolescents' nativity; however, this reduced our sample size and limited our ability to conclude whether significant mediation existed for both groups. Our results indicated that mothers' perceptions of the ethnic socialization they provided their adolescent daughters may mediate the association between mothers' familism values and adolescents' ethnic identity exploration; however, future studies with a larger sample are needed to test this process with mediation analyses. This is an important focal area for future research because if replication indeed indicates that mediation exists for this process, it will support the notion that ethnic socialization is an important process to target for intervention because it provides a link between mothers' familism values and adolescents' ethnic identity exploration.

Finally, the current study contributed to literature focused on the association between ethnic socialization and ethnic identity by assessing multiple perspectives capturing adolescents' familial ethnic socialization experiences: adolescents' reports of the ethnic socialization provided by their family members

and mothers' reports of the ethnic socialization they provided their adolescent daughters. However, given that we asked about socialization provided by different people (i.e., ethnic socialization by *mothers* using mothers' reports and ethnic socialization by *family members in general* using adolescents' reports), we are unable to determine whether this association would vary if adolescents and mothers were asked to report on the same construct (e.g., both reporting on maternal ethnic socialization). In the current study, we were interested in the ethnic socialization that *mothers* reported providing because they have been identified as particularly important to adolescent mothers (Brooks-Dunn & Chase-Lansdale, 1995). However, our findings indicated that adolescents' reports of the ethnic socialization provided by *family members* influenced their ethnic identity resolution and exploration; thus, it will be important to determine which family members specifically contribute to this association for adolescent mothers. Further, we found that mothers' ethnic identity affirmation directly related to adolescents' ethnic identity affirmation, but it remains to be determined whether other family members also influence adolescents' ethnic identity affirmation. Thus, it would be valuable for future studies to assess enculturation characteristics (e.g., ethnic identity affirmation) for multiple family members (e.g., fathers, siblings) to examine the degree to which they inform adolescents' ethnic identity processes.

Despite the aforementioned limitations, the current study advances the literature on adolescents' ethnic identity by examining this process among

Mexican-origin adolescent mothers as it is informed by mothers' enculturation characteristics, ethnic socialization provided by adolescents' mothers, and adolescents' perceptions of familial ethnic socialization. Our findings add to the growing literature that has emphasized the role of family in adolescents' ethnic identity development, by demonstrating longitudinally that mothers' familism values, ethnic identity affirmation, and ethnic socialization processes with their daughters all work in conjunction to inform increases or decreases in adolescents' ethnic identity processes. In addition, our findings generally held across nativity groups, indicating that this process appeared to be similar for U.S.-born and foreign-born adolescents with the exception of one path from mothers' reports of ethnic socialization to adolescents' ethnic identity exploration. As recommended by scholars, our study moved beyond examining deficit models for at-risk youth (García Coll et al., 1996) by instead focusing on positive processes underlying the normative development of ethnic identity. In sum, our findings support the importance of family members, particularly mothers, to Mexican-origin adolescent mothers' ethnic identity development, and underscore that interventions that include components focused on cultural and familial processes would be valuable for Mexican-origin adolescent mothers and their families as they transition from pregnancy to parenting.

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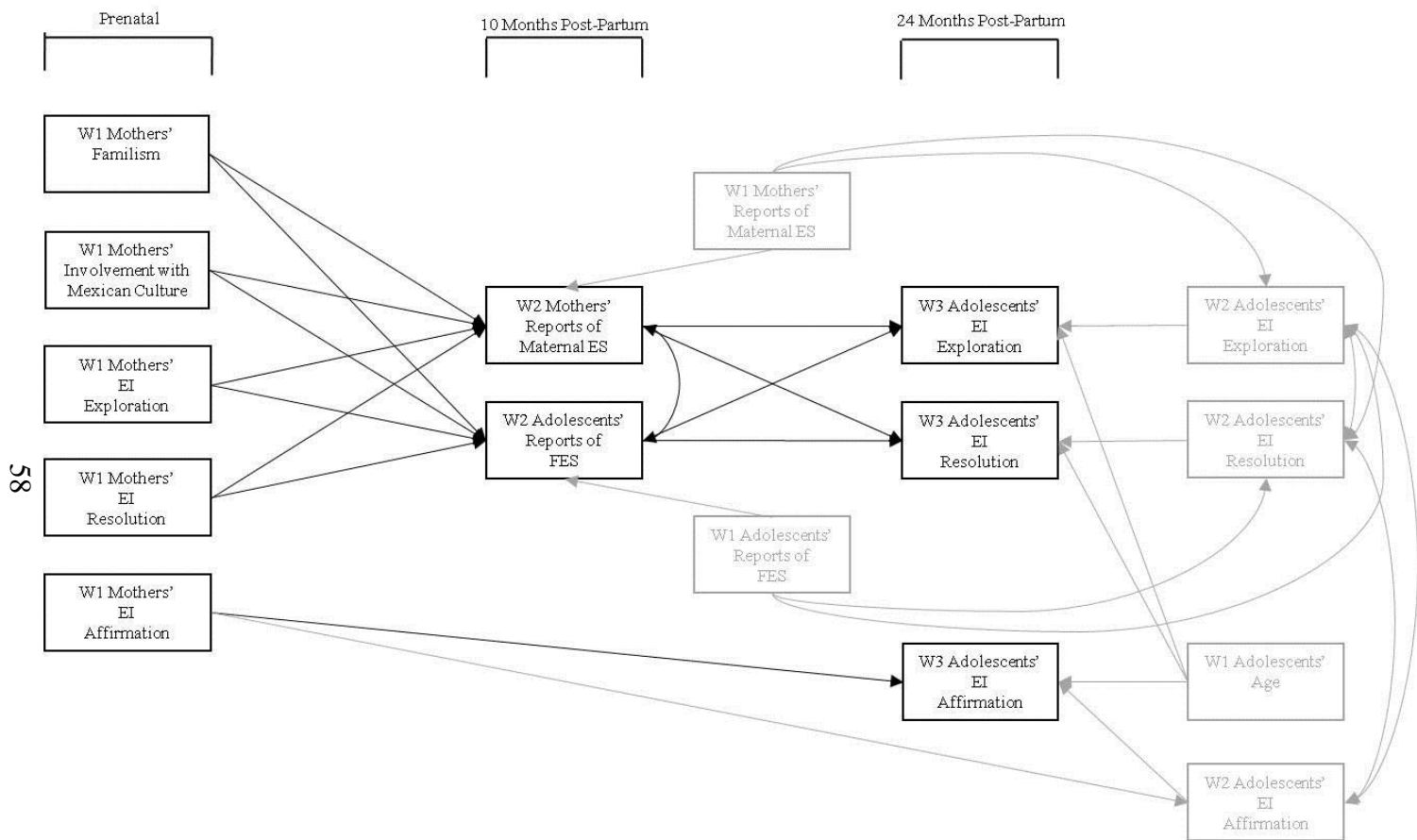
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Table 1
Means, Standard Deviations, and Correlations Among Study Variables by Adolescents' Nativity: Foreign-Born (n = 73) and U.S.-Born (n = 120) Adolescents.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. W1 Maternal ES	--	-.03	.20**	.09	.00	.27***	.08	-.05	.42***	.03	-.09	.27***	-.04	.25***	.06	.10
2. W1 AdFES	.24***	--	-.05	.11	.17**	.02	-.19**	.18**	.09	.51***	.54***	.06	.02	.44***	.02	-.01
3. W1 MFamilism	.46***	.05	--	.27***	-.05	-.02	-.12*	.04	.07	-.15*	-.10	-.21**	-.12*	.04	.02	.12*
4. W1 M-MX Involvement	.32***	.18	.25***	--	.04	.08	-.29***	.06	.30***	-.01	.08	-.11	-.12*	.12*	-.01	-.13*
5. W1 MEI Exp	.58***	.10	.27***	.23***	--	.51***	.12*	.37***	.33	.08	.28***	.02	.12*	.06	-.00	-.02
6. W1 MEI Res	.44***	.03	.23***	.32***	.49***	--	.20**	-.01	.46	.02	.15*	.26***	.05	.11	-.06	-.08
7. W1 MEI Aff	-.01	-.15	-.11	-.09	.06	.16*	--	.04	.15	.07	-.08	-.05	-.07	-.23***	.02	.18**
8. W1 AdAge	-.12*	-.04	-.08	-.02	-.10	.04	.06	--	.00	.10	.06	-.11	.05	-.15*	-.02	.06
9. W2 Maternal ES	.63***	.17	.37***	.21**	.41***	.24***	.04	-.12*	--	.27***	.19**	.13*	.05	.23***	.06	.10
10. W2 AdFES	.01	.53***	.12*	.16*	.11	.16*	-.22**	.01	.16*	--	.34***	.09	.07	.05	.02	-.01
11. W2 AdEI Exp	.14*	.41***	-.12*	.10	.03	.00	-.15*	.07	.04	.47***	--	.36***	.13*	.41***	.32***	.01
12. W2 AdEI Res	.21**	.28***	.11	.07	.15*	.18**	.03	-.09	.26***	.32***	.28***	--	.18**	.25***	.21**	.11
13. W2 AdEI Aff	-.08	-.08	-.06	-.02	-.00	.03	.20**	.19**	.03	.09	.07	.27***	--	-.08	.09	.28***
14. W3 AdEI Exp	-.04	.20**	-.07	.10	-.00	.03	-.11	-.01	-.19**	.34***	.37***	.13*	-.14*	--	.48***	.23***
15. W3 AdEI Res	.05	.21**	-.07	.15*	.07	.11	.09	-.06	.04	.32***	.19**	.08	.02	.39***	--	.34***
16. W3 AdEI Aff	.00	-.20**	.00	.05	.22**	.11	.32***	-.04	.05	-.15*	-.13*	.21**	.35***	.08	.07	--
Foreign-born adolescents																
Mean	3.33	3.58	4.59	4.35	2.74	3.29	3.58	16.25	3.44	3.63	3.00	3.49	3.74	3.03	3.58	3.86
Standard Deviation	.77	.75	.28	.46	.58	.63	.61	.98	.81	.83	.66	.78	.53	.88	.83	.60
U.S.-born adolescents																
Mean	3.21	3.38	4.46	3.93	2.73	3.35	3.70	16.18	3.25	3.42	2.80	3.39	3.87	2.84	3.51	3.84
Standard Deviation	.81	.76	.40	.74	.69	.40	.70	.51	.85	.84	.70	.64	.33	.77	.60	.45

Note. Foreign-born adolescent mothers' correlations are above the diagonal; U.S.-born adolescent mothers' correlations are below the diagonal. Nativity coded as 0 = Foreign born, 1 = U.S. born. W1 = Wave 1, W2 = Wave 2, and W3 = Wave 3, M = Mother, Ad = Adolescent, ES = ethnic socialization, FES = Familial Ethnic Socialization, EI = Ethnic Identity, Exp = Exploration, Res = Resolution, Aff = Affirmation.
 * $p < .05$. ** $p < .01$. *** $p < .001$.



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Figure 1. Multigroup path model with adolescent mothers' nativity as the grouping variable. W1 = Wave 1, W2 = Wave 2, W3 = Wave 3, EI = ethnic identity, ES = ethnic socialization, FES = familial ethnic socialization. Grey lines indicate control variables and paths, and black lines indicate hypothesized variables and paths. The following paths were specified in the model, but are not included here for ease of illustration: correlated residuals between W2 adolescents' reports of familial ethnic socialization and W2 adolescents' EI exploration and EI resolution.

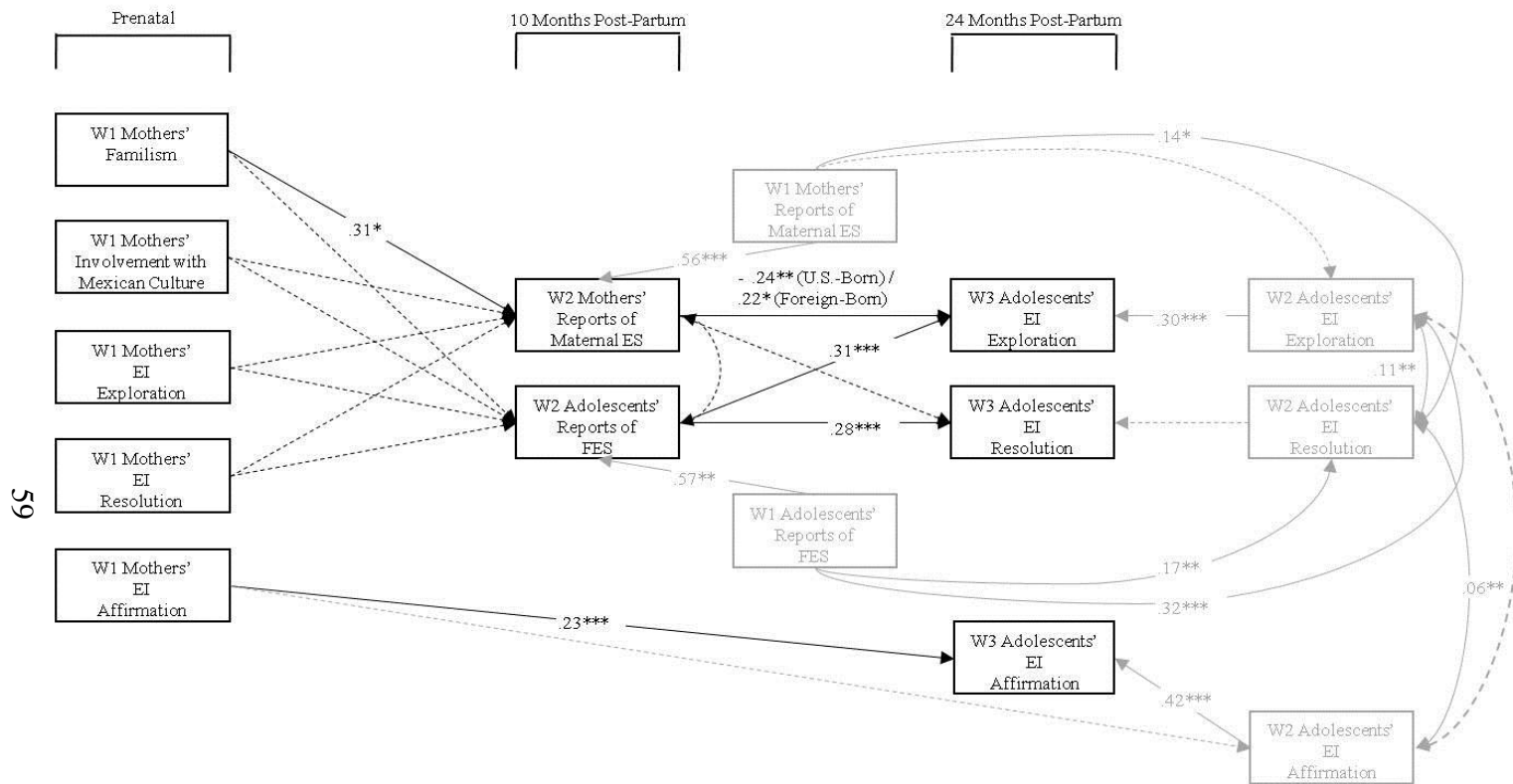


Figure 2. Final partially constrained model for U.S.-Born and Foreign-Born Adolescent Mothers. The only freely estimated path is from W2 mothers' reports of maternal ethnic socialization to W3 adolescents' EI exploration. W1 = Wave 1, W2 = Wave 2, W3 = Wave 3, EI = ethnic identity, ES = ethnic socialization, FES = familial ethnic socialization. Grey lines indicate control variables and paths and black lines indicate hypothesized variables and paths. Dashed lines indicate non-significant paths, and solid lines indicate significant paths. Adolescents' age at W1 was included as a control predicting adolescents' EI exploration, resolution, and affirmation at W3, but is not modeled here. Additionally, the following paths were included, but not modeled here: correlated residuals between W2 adolescents' reports of familial ethnic socialization and W2 adolescents' EI exploration and EI resolution. All path estimates are unstandardized. * $p < .05$. ** $p < .01$. *** $p < .001$