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Trajectories of Ethnic-Racial Identity and Autonomy among Mexican-origin Adolescent Mothers in the U.S

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Abstract

This study examined trajectories of ethnic-racial identity (ERI) and autonomy development among Mexican-origin adolescent females in the U.S. (N = 181; M_{age} at Wave 1 = 16.80 years, SD = 1.00) as they transitioned through the first five years of parenthood. Trajectories of ERI and autonomy also were examined in relation to psychosocial functioning. Unconditional latent growth models indicated significant growth in autonomy, ERI resolution, and ERI affirmation from middle to late adolescence. Conditional latent growth models indicated that autonomy and ERI exploration growth trajectories were positively associated with psychosocial adjustment. Although adolescent mothers are experiencing transitions that are not normative during adolescence, they *also* engage in normative developmental processes, and their engagement in such processes is linked with better adjustment.

Keywords

adolescent adjustment; adolescent mother; autonomy; ethnic identity; Mexican-origin

A unique and challenging feature of adolescent motherhood is the simultaneous negotiation of the normative developmental tasks of adolescence, such as identity formation and autonomy development (Erikson, 1968; Josselson, 1994; Marcia, 1994), and the transition to parenthood. Our understanding of normative developmental processes among adolescent mothers is significantly limited, as the existing empirical work is largely focused on experiences relevant to their identities as *young mothers*, rather than their identities as *adolescents* (Shapiro, 2003). Alongside this lacuna in the literature, there also continues to be a lack of longitudinal data and limited attention to normative developmental processes among ethnic minority populations (Cabrera, Beeghly, & Eisenberg, 2012). Thus, we know

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almost nothing about *ethnic minority adolescent mothers'* trajectories of normative development, nor do we know how such trajectories are linked to their psychosocial functioning during young adulthood.

Belsky's (1984) model of the determinants of parenting suggests that optimal parenting is most likely to emerge when parents are personally mature and psychologically well-adjusted; thus, understanding how adolescent mothers progress through normative developmental processes such as autonomy development and ethnic-racial identity formation, which have been consistently linked with positive adjustment (e.g., Bush, Supple, & Lash, 2004; Rivas-Drake et al., 2014), is of paramount significance. Accordingly, the current study had two primary goals: (a) to describe the trajectories of ethnic-racial identity and autonomy development among a sample of Mexican-origin adolescent females living in the United States as they transitioned from the third trimester of pregnancy and through the first five years of parenthood during adolescence to young adulthood, and (b) to examine if adolescent mothers' increasing trajectories of ethnic-racial identity and autonomy development were associated with better psychosocial functioning (i.e., higher self-esteem, lower depressive symptoms, lower engagement in risky behaviors) during young adulthood. Although trajectories of normative development are an important focus of study among all adolescent mothers, we focus on Mexican-origin adolescent mothers because Latina adolescent females demonstrate the highest rates of teenage pregnancy among all ethnic groups in the U.S. (Child Trends, 2014), and within Latinos, Mexican-origin adolescents have the highest birthrates among all national origin groups (Ventura, Hamilton & Mathews, 2013). For instance, in 2010 the birth rates (i.e., births per 1,000 females) for females aged 15–19 years were 55.7 for Latinas, 51.5 for non-Latino Blacks, 38.7 for American Indian/ Native Americans, 23.5 for non-Latino Whites, and 10.9 Asian/Pacific Islanders (Ventura et al., 2013). And within the Latino population, rates were 55.5, 43.7, and 24.4 for Mexican-, Puerto Rican, and Cuban-origin adolescent females (Ventura et al., 2013).

Normative Developmental Trajectories and Motherhood during Adolescence

Adolescent females making the transition to parenthood are contending with multiple stressors and developmental changes resulting from their new status as mothers. For example, increases in depressive symptoms can reduce young mothers' parenting abilities (Black et al., 2002), high levels of stress can pose a risk to adolescent mothers' parenting competence (for a review, see Shapiro, 2003), and too much social support can interfere with adolescents' abilities to develop effective parenting skills (Contreras, Narang, Ikhlas, & Teichman, 2002). In addition to these experiences that are characteristic of the transition to adolescent parenthood, however, these young women also are experiencing developmentally normative changes in social, cognitive, and emotional domains that inform their adjustment (Trad, 1995). Ultimately, their trajectories of development for these normative adolescent tasks can inform their adjustment during young adulthood. For instance, increasing autonomy and reducing dependency on parents are important developmental tasks during adolescence, yet adolescent mothers' dependence on their family of origin naturally increases as a function of acquiring the role of mother at such a young age; this dissonance

between their developmentally informed needs and the needs resulting from early parenthood can result in psychological turmoil that, in turn, minimizes their ability to effectively parent their young child (Shapiro, 2003). Because most existing research has focused on development and adjustment specific to their status as teenage *mothers*, there is a significant need for empirical work that examines adolescent mothers' normative developmental trajectories; indeed, a better understanding of how adolescent mothers are negotiating typical adolescent developmental processes will help to provide a more comprehensive knowledge base and inform developmentally appropriate interventions for adolescent mothers. In the current study, we focus on two developmental tasks that are particularly salient during adolescence: autonomy development and identity formation.

Autonomy Development and Adolescent Motherhood

Autonomy development is theorized to be a basic human need (Kagitcibasi, 2005) that is of pronounced importance during adolescence (Elliott & Feldman, 1993). In the current study we focus on behavioral autonomy, capturing adolescent mothers' perceptions of their freedom to make independent decisions (Daddis & Smetana, 2005). Scholars suggest that optimal youth development is characterized by adolescents increasingly gaining autonomy in decision making, and that failure to follow this developmentally prescribed progression may result in maladjustment (for a review see Zimmer-Gembeck & Collins, 2003). These notions also have been applied specifically to Latino youth, and previous work has demonstrated that Latina adolescent females seek behavioral autonomy in a fashion consistent with expectations in mainstream U.S. culture (e.g., Bámaca-Colbert, Umaña-Taylor, Espinosa-Hernández, & Brown, 2012), and that greater behavioral autonomy from mothers is associated with better youth adjustment for both Latino boys and girls (e.g., Bush et al., 2004). This also is consistent with notions advanced by Kagitcibasi (2005) suggesting that the family model of psychological interdependence, in which youth are seeking (and expected to seek) autonomy in the context of close knit family relationships, best reflects much of the majority world with cultures of relatedness (i.e., where closely knit family ties prevail while economic and social structural transformations are taking place in education, affluence, and urbanization). This resonates with the experiences of Mexican-origin families who are known for strong, interconnected family orientations (Bush et al., 2004) and are living in the U.S., which is known to strongly value individual independence (Kagitcibasi, 2005).

For adolescent mothers, the process of autonomy development is additionally complicated by the simultaneous negotiation of normative developmental needs for increases in autonomy coupled with their (somewhat contrasting) increased need for support, guidance, and assistance during the transition to parenthood and early years of parenting (Contreras et al., 2002). Theoretical work further suggests that adolescent mothers may experience feelings of disappointment, depression, or resentment if they do not achieve the levels of autonomy that they expected would accompany their new status as mothers (Shapiro, 2003). Although no empirical studies, to our knowledge, have examined *trajectories* of autonomy development among adolescent mothers and their links to adjustment, one cross-sectional study with Latina adolescent mothers found that adolescent mothers' perceptions of greater autonomy were positively associated with psychosocial functioning (Nadeem & Romo,

2008). Thus, based on this prior work, and given the normative nature of autonomy development during adolescence in mainstream U.S. culture, we expected that adolescent mothers would demonstrate positive growth trajectories of behavioral autonomy during the transition from teenage pregnancy through the early years of parenting; furthermore, we expected that adolescent mothers' positive growth trajectories for autonomy would be associated with better psychosocial adjustment (i.e., higher self-esteem, lower depressive symptoms, and lower engagement in risky behaviors) during young adulthood.

Ethnic-racial Identity Development and Adolescent Motherhood

Identity formation is a salient developmental task during adolescence (Erikson, 1968), and ethnic-racial identity (ERI) specifically has been recognized as a normative feature of development that is essential for positive adjustment among ethnic and racial minority adolescents (Umaña-Taylor et al., 2014; Williams, Tolan, Durkee, Francois, & Anderson, 2012). ERI is a multidimensional, psychological construct that captures the processes by which individuals develop an understanding of their ethnic-racial group membership, as well as the beliefs and attitudes that individuals espouse about their ethnic-racial group (Umaña-Taylor et al., 2014). From a developmental perspective, ERI processes of exploration (i.e., the degree to which individuals have explored their ERI) and resolution (i.e., the sense of clarity they have about their ERI) are expected to increase significantly as individuals progress from middle to late adolescence (Phinney, 1989), and ERI affirmation (i.e., positive attitudes individuals have about their ERI) also is expected to increase when development is taking place in a context in which ethnicity is salient and positive feelings about one's ethnic group can be protective (e.g., when one's group is a numerical ethnic minority, positive feelings about group membership can carry benefits to self-concept; Umaña-Taylor, Gonzales-Backen, & Guimond, 2009). Consistent with this, previous research with non-pregnant Latina adolescent females attending schools in which Latino students were a numerical minority found that ERI exploration, resolution, and affirmation all increased significantly from middle to late adolescence (Umaña-Taylor et al., 2009). As described below, we expect a similar pattern to emerge with the current sample of Mexican-origin adolescent mothers.

Theorists suggest that ERI formation is not only developmentally informed, but also bound by the social-environmental contexts within which individuals are developing (Umaña-Taylor et al., 2014). Accordingly, we contend that teenage pregnancy is a socio-environmental context that may thrust adolescent females into more in-depth exploration and resolution of multiple facets of their identity; specifically, as adolescents consider the hopes and dreams that they have for their young child, and the ways in which they want to socialize and raise their child, this may lead adolescent mothers to increasingly explore their ethnic-racial heritage and to resolve their feelings about their ERI. Indeed, scholars suggest that parenthood can engage parents in the process of thinking about their ethnicity and considering how they will inculcate culture into their child's life (Hughes, Rodriguez, Smith, Johnson, Stevenson, & Spicer, 2006). In addition, the rejection-identification model (Branscombe, Schmitt, & Harvey, 1999) suggests that when individuals recognize that they are being stigmatized based on stereotypes about their group, this can lead to increased group identification. For Mexican-origin adolescent mothers, the stereotype of Latinas being

sexually promiscuous (Bowman & King, 2003) may become particularly salient in the context of teenage pregnancy and, thus, result in increases in ERI affirmation. Thus, we expect that due to the prominence of identity formation processes during adolescence, coupled with the experience of becoming a parent, adolescent mothers transitioning to parenthood will show significant increases in ERI exploration, resolution, and affirmation as they progress from pregnancy through the early years of parenting during the developmental period of adolescence.

In addition to expecting increases in ERI during the transition from pregnancy through the early years of parenting, we hypothesized that such increases would be significantly associated with better psychosocial functioning during early adulthood among our sample of Mexican-origin adolescent mothers. Based on Erikson's (1968) notions of identity formation, a resolved identity that is achieved via a process of exploration is expected to result in better psychosocial adjustment; thus, increases in ERI resolution and exploration are expected to be associated with better adjustment (Umaña-Taylor, Yazedjian, & Bámaca-Gomez, 2004). Similarly, social identity theory (Tajfel, 1981) suggests that individuals' positive feelings about their membership in social groups (e.g., ERI affirmation) can promote positive feelings about one's self-concept. In support of these theoretical notions, the positive associations between ERI and youth adjustment have been established in prior work with non-pregnant adolescents (e.g., Rivas-Drake et al., 2014; Supple, Ghazarian, Frabutt, Plunkett, & Sands, 2006), but studies of pregnant and parenting adolescents are more limited. In one exception, Sieger and Renk (2007) found that higher ERI (using a composite score of exploration, resolution, and affirmation) was associated with lower internalizing behavior problems and higher self-esteem among a sample of Latina pregnant and parenting adolescents. In sum, we hypothesized that adolescent mothers would show significant increases in ERI exploration, resolution, and affirmation over time, and that a positive growth trajectory for each of these constructs would be associated with better psychosocial adjustment (i.e., higher self-esteem, lower depressive symptoms, and lower engagement in risky behaviors) in early adulthood.

The Current Study

The current study had two primary goals. First, we examined the developmental progression of ERI exploration, ERI resolution, ERI affirmation, and behavioral autonomy from the transition to parenthood through young adulthood among a sample of Mexican-origin adolescent mothers. Second, we examined whether these trajectories of development were significantly associated with adolescent mothers' psychosocial functioning in young adulthood. Specifically, we tested the following hypotheses:

H1: Adolescent mothers will demonstrate significant increases in (a) ERI exploration, (b) ERI resolution, (c) ERI affirmation, and (d) autonomy over a five-year period.

H2: Growth in adolescent mothers' (a) ERI exploration, (b) ERI resolution, (c) ERI affirmation, and (d) autonomy will be positively associated with self-esteem, and negatively associated with depressive symptoms and engagement in risky behaviors in young adulthood.

Given prior work noting that nativity status can introduce variability into identity formation processes (Umaña-Taylor, Zeiders, & Updegraff, 2013), adolescents' nativity was included as a control in all analyses. In addition, all outcome variables at the onset of the study (i.e., Wave 1) also were modeled as controls in models predicting psychosocial functioning. Finally, for Hypothesis 1, we examined adolescent age at Wave 1 (W1) as a moderator of trajectories of growth, considering that age-graded growth in the constructs of interest may be relatively steeper among those who started the study at a younger age, given that they might experience more pronounced changes in their social cognitive maturity relative to their older counterparts who would have already experienced some of this maturity prior to W1. For the models testing Hypothesis 2, age at W1 was included as a control in all analyses.

Method

Participants

Data for the current study came from a 6-year longitudinal study of 204 Mexican-origin adolescent mothers that began in 2007 and ended in 2013 (Umaña-Taylor, Guimond, Updegraff, & Jahromi, 2013). At W1, adolescent participants were unmarried, in their third trimester of pregnancy (M_{weeks} = 30.9, *SD* = 4.52), and an average of 16.80 years old (SD = 1.00). Adolescents were re-interviewed annually for the next 5 years. At W2, W3, W4, W5, and W6, 96%, 85%, 84%, 85% and 84% of the original adolescent sample was re-interviewed, respectively.

Given the interest in adolescent mothers' experiences within the U.S., the current study focused only on adolescents who had lived continuously within the U.S. from W1 to W6 (*N* = 181). The age distribution at W1 for the current analytic sample was 15 years (*n* = 47), 16 years (*n* = 50), 17 years (*n* = 63), 18 years (*n* = 20); and one adolescent turned 19 years on the date of the W1 interview. A majority of adolescents were born in the U.S. (67.4%) and a majority (i.e., > 66%) completed the interview in English at each wave. Among those born in Mexico, the average age of arrival in the U.S. was 8.05 years (*SD* = 4.67). At W1, over half of adolescent mothers were enrolled in high school (61%), and by W6 their average level of education was 12.31 years (*SD* = 2.94). Among those who participated at W6, 53% had graduated from high school or earned a GED and were not currently pursuing more education, 11% were currently enrolled in school, and 36% had not earned a high school diploma or GED. With respect to employment status, 18% of adolescent mothers reported working for pay at W1 (16% full-time, 84% part-time), and this figure increased to 55% working for pay at W6 among those who participated (63% full-time, 37% part-time). The average household income at W1 was $28,353 (*SD* = $20,496) and remained relatively stable across waves: W2 = $23, 414 (*SD* = $18,577), W3 = $24,659 (*SD* = $19,149), W4 = $25,590 (*SD* = $19,868), W5 = $25,317 (*SD* = $17,982), and W6 = $27,692 (*SD* = $19,478).

Procedures

Our community-based sample of adolescent mothers was recruited from a Southwestern metropolitan area. The research team delivered study brochures to community agencies, resource centers serving women and children in need, guidance counselors at high schools,

and health centers serving pregnant women. Bilingual project staff members were available at the various recruitment sites to answer questions and clarify participation requirements; staff members also attended scheduled community events or meetings for pregnant women (e.g., prenatal health fair) to announce the project and answer questions about eligibility to participate. Potential participants completed a contact information form and project staff conducted a formal screening via a follow-up phone call.

Data were collected via in-home, face-to-face individual interviews at all waves. Interviewers received extensive training (i.e., a minimum of 30 hours) upon joining the project. Interviewers were trained on general topics such as cultural sensitivity, safety protocols while in the field, and global interviewing skills (e.g., uniformity in asking questions, appropriate ways to probe and to clarify questions for participants without leading participants toward an answer); training also included appropriately administering consent and assent forms, accurately following skip patterns in the survey, and attention to detail in all data collection protocols. At each new wave of data collection, interviewers were trained on any changes in the protocol. Given the long-term nature of the project, most participants were not interviewed by the same person over the course of the study. Across the six waves, the project had a total of 62 interviewers; all were female, 81% were Latino/Hispanic, and 66% were Spanish/English bilingual. The average level of education for interviewers was 14.70 years (*SD* = 1.57), which reflected an average of over two years of college education. Interviews lasted approximately 2.5 hours at each wave, and were conducted in participants' language of choice (i.e., English or Spanish). All measures were translated and back-translated by two separate individuals and the final wording of items was determined via a decentering approach with the goal of achieving conceptual equivalence across language versions (see Knight, Roosa, & Umaña-Taylor, 2009). In addition, a native Spanish speaker of Mexican origin reviewed the final Spanish version of items to assess cultural validity for Mexican dialect. At W1, parental consent and youth assent were obtained for participants who were younger than 18 years old, and informed consent was obtained for participants who were 18 years and older. Participant incentives were $25 at W1, $30 at W2, $35 at W3, $40 at W4, $50 at W5, and $60 at W6.

Measures

ERI exploration, resolution, and affirmation (W1, W2, W3, W4, W5)—Adolescent mothers' ERI was assessed at W1, W2, W3, W4 and W5 using the Ethnic Identity Scale (Umaña-Taylor et al., 2004). Subscales assess: (a) *exploration* (7 items, e.g., I have attended events that have helped me learn more about my ethnicity), (b) *resolution* (4 items, e.g., I am clear about what my ethnicity means to me), and (c) *affirmation* (6 items, e.g., My feelings about my ethnicity are mostly negative; reverse coded). Items were scored on a 4-point Likert scale, ranging from 1 (*does not describe me at all*) to 4 (*describes me very well*); a mean score was computed for each subscale; and higher scores reflected greater exploration, resolution, and affirmation. Support for construct validity and internal consistency of the ERI subscales has been demonstrated in prior work with Latino (Supple et al., 2006) and Mexican American adolescents (White, Umaña-Taylor, Knight, & Zeiders, 2011). In the current study, W1 to W5 reliability estimates for ERI exploration were .82, .79, .77, .85, and .81, respectively. For ERI resolution, W1 to W5 reliability estimates were .85, .81, .87, .

83, and .82, respectively. For ERI affirmation, W1 to W5 reliability estimates were .85, .77, .87, .80, .and .80, respectively.

Adolescent autonomy (W1, W2, W4, W5)—A revised version of the Behavioral Autonomy Scale (Peterson, Bush, & Supple, 1999) was used to assess adolescent mothers' reports of behavioral autonomy from their own mothers/mother figures at W1, W2, W4, and W5. The 10-item scale measured the extent to which mother figures allowed adolescent mothers to make their own decisions and engage in activities without excessive parental intrusion regarding issues such as friendships, life-style preferences, clothing selection, and academic goals (e.g., My mother/mother figure allows me to decide what clothes I should wear without interfering too much). Items were scored on a 4-point Likert scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). A mean score was computed across items, and higher scores indicated greater perceived behavioral autonomy from mothers. In an effort to reduce participant burden (i.e., by decreasing the number of questions that participants had to answer), the measure of autonomy was not administered at W3 because it was considered relatively less central to the aims of the larger project. With respect to the appropriateness of the measure with the target population, previous work with Mexican-origin adolescents has provided support for the validity and reliability of the measure (Bush et al., 2004). In the current study, internal consistency was adequate at W1, W2, W4, and W5 (α_s = .81, .86, .92, .92, respectively).

Adolescent depressive symptoms (W1, W6)—The Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977) was utilized to assess adolescent mothers' affective, cognitive, and behavioral depressive symptoms at W1 and W6. This measure consists of 20 items (e.g., "I had crying spells) scored on a 4-point Likert scale ranging from 0 (*rarely or none of the time (less than 1 day)*) to 3 (*mostly or almost all the time (5–7 days)*). A mean score was computed across all items, and higher values indicated greater depressive symptoms. Prior work has provided support for the reliability and validity of the CES-D with samples of adolescent mothers (e.g., Kalil, Spencer, Spieker, & Gilchrist, 1998; Mollborn & Morningside, 2009), and for the Spanish and English versions of the measure with Mexican American samples (Mosicicki, Locke, Rae, & Boyd, 1989). Furthermore, a recent review noted that the CES-D, which is a commonly used measure to assess depressive symptoms among adolescent mothers, appears to provide a reliable and valid assessment of symptomology among adolescent mothers (Reid & Meadows-Oliver, 2007). With the current sample, the scale demonstrated adequate reliability at W1 and W6 (α_s = .85, .92, respectively).

Adolescent self-esteem (W1, W6)—Adolescent mothers' self-esteem was assessed using the Rosenberg Self-Esteem Scale (Rosenberg, 1979). Participants responded to 10 items (e.g., I feel that I have a number of good qualities) using a 4-point Likert scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). An average score was computed across all items, with higher scores reflecting greater self-esteem. Support for the validity and reliability of the measure has emerged in prior work with Latino adolescents (e.g., Umaña-Taylor et al., 2004). The scale demonstrated adequate reliability with the current sample at W1 and W6 (α_s = .80, .88, respectively).

Adolescent risk-taking behaviors (W1, W6)—Adolescent mothers' risk-taking behaviors were assessed at W1 and W6 using an adapted version of a measure developed by Eccles and Barber (1990). The 17 items that comprised the scale at both W1 and W6 assessed risk-taking behaviors such as alcohol and drug use, fighting, and property damage (e.g., In the past year, how often have you... "had contact with the police for something you did or that they thought you did;" "gotten drunk or high"). Items were scored on a 4-point Likert scale ranging from 1 (*never*) to 4 (*more than 10 times*); a mean score was computed, and higher values represented greater engagement in risk-taking behaviors. Support for construct validity and internal consistency of the measure has been noted in prior work focused on Mexican American adolescents (Updegraff, McHale, Whiteman, Thayer, & Crouter, 2006). The scale demonstrated adequate internal consistency at W1 and W6 (α = . 86, .80, respectively).

Results

Analytic Approach and Preliminary Analyses

To examine Hypothesis 1 (i.e., trajectories of ERI exploration, ERI resolution, ERI affirmation, and autonomy), we conducted latent growth curve models via structural equation modeling in Mplus Version 7.2 (Muthén & Muthén, 1998–2012). Missing data were accounted for using full information maximum likelihood (FIML; Enders 2010). In the first step of the analyses, we examined multi-group latent growth trajectories by adolescent age grouping (0 = younger adolescent, 1 = older adolescent). Adolescents who were 15 years old at W1 were classified into the younger adolescent group and those 16 and older at W1 were classified into the older adolescent group. The age classification was based on age 16 capturing changes in several significant social-developmental milestones that are reached at this age, such as the ability to obtain a driver's license, and labor laws that eliminate restrictions on work hours (U.S. Department of Labor, 2015).

ERI trajectories were based on 5 waves of data (W1 – W5) and the autonomy trajectory was based on 4 waves of data (W1, W2, W4, and W5). For all trajectories, a 2-factor model was specified to capture the intercept and rate of growth over time (i.e., slope); furthermore, adolescent nativity (0 = Mexico-born, 1 = U.S.-born) was modeled as a control variable on the slope for all models. For ERI trajectories, the loadings of the intercept were set equal to 1 and the loadings of the slope were set to 0, 1, 2, 3, and 4. For the autonomy trajectory, the loadings of the intercept were set equal to 1 and the loadings of the slope were set to 0, 1, 3, and 4, to reflect the missing assessment of autonomy at W3. In the multi-group analyses, the intercept and slope were allowed to vary across age grouping, but the control variable (i.e., nativity) was constrained to be equal. Follow-up models were examined in which the intercept and slope were constrained to be equal across groups. A significant chi-square difference test and a change in the CFI greater than .01 would suggest significant differences in the intercept and slope across age grouping.

To test Hypothesis 2 (i.e., whether ERI and autonomy trajectories predicted W6 depressive symptoms, W6 self-esteem, and W6 risk-taking behaviors) we tested conditional latent growth models. In these analyses, we controlled for W1 outcomes (W1 depressive

symptoms, self-esteem, and risk-taking), as well as adolescent age at W1 and adolescent nativity.

As a preliminary step, confirmatory factor analyses were conducted to examine the factor structure of the key study constructs at W1 (i.e., ERI exploration, ERI resolution, ERI affirmation, and autonomy), with a specific focus on examining the equivalence of the Spanish and English versions of the measures, and examining their structural equivalence across time (W1 to W6). For language equivalence, configural and metric factorial invariance were tested across language versions (see Knight et al., 2009, for a detailed discussion of invariance testing). Findings supported language invariance for ERI exploration and ERI resolution (detailed results available upon request). For autonomy, configural and metric language invariance was achieved after deleting two items; however, findings (presented below) did not change when using the revised 8-item or the original 10-item version of the autonomy measure. With respect to invariance across time, we examined a series of models in which configural and metric invariance was tested from W1 to W2, W2 to W3, W3 to W4, W4 to W5, and W5 to W6 for all ERI measures; and for the autonomy measure we tested W1 to W2, W2 to W4, W4 to W5, and W5 to W6. Findings supported time invariance for ERI exploration and autonomy. Similar to findings described above for autonomy language invariance, configural and metric time invariance was achieved for ERI resolution after deleting two items; however, findings did not change when using the revised 2-item or the original 4-item version of the ERI resolution measure. With respect to ERI affirmation, we were unable to statistically examine language or time invariance of the ERI affirmation measure due to the limited variability in this construct, which is consistent with prior work that has found the construct to be highly skewed and limited in variability (e.g., Umaña-Taylor & Guimond, 2010).

Trajectories of ERI Exploration, ERI Resolution, ERI Affirmation, and Autonomy

Table 1 presents means and standard deviations, and Table 2 presents bivariate correlations for study variables. For ERI exploration (Table 3), multi-group model comparisons revealed no differences by age in the ERI exploration intercept ($\chi^2\Delta$ (1) = .67, p = .41, CFIΔ = .002; 95% CI for younger [2.64, 2.96] and older [2.79, 3.00] adolescents), but significant differences by age in the ERI exploration slope ($\chi^2\Delta$ (1) = 5.39, $p < .05$, CFIΔ = .021; 95% CI for younger [.01, .14] and older [−.00, .01] adolescents). Specifically, for younger adolescent mothers, a significant slope emerged suggesting that younger adolescent mothers, on average, increased in exploration from W1 to W5. The ERI exploration slope was not significant for older adolescent mothers, suggesting that, on average, older adolescent mothers reported no change in exploration from W1 to W5.

For ERI resolution, the comparisons across the multi-group models revealed no differences by age for the ERI resolution intercept ($\chi^2\Delta$ (1) = .10, p = .76, CFIΔ = .006) or for the ERI resolution slope ($\chi^2\Delta$ (1) = 1.37, p = .24, CFIΔ = .003). Given this, we examined a latent growth model for the overall sample (Table 4). Results revealed a significant ERI resolution slope (95% CI [.01, .10]), suggesting that adolescent mothers, on average, increased in resolution from W1 to W5. In addition, the resolution intercept factor was significant,

indicating that mean levels of resolution at W1 were significantly different from zero, 95% CI [3.25, 3.42].

For ERI affirmation, the comparisons across the multi-group models revealed no differences by age for the ERI affirmation intercept ($\chi^2\Delta$ (1) = .001, p = .97, CFIΔ = .003) or the ERI affirmation slope ($\chi^2\Delta$ (1) = .16, p = .69, CFIΔ = .002). Given this, we examined a latent growth model for the overall sample (Table 4). Results revealed a significant ERI affirmation slope (95% CI [.01, .05]), suggesting that adolescent mothers, on average, increased in affirmation from W1 to W5. In addition, the affirmation intercept factor was significant, indicating that mean levels of affirmation at W1 were significantly different from zero, 95% CI [3.75, 3.86].

Finally, for autonomy, the comparisons across the multi-group models revealed differences by age in the autonomy intercept ($\chi^2\Delta$ (1) = 8.23, p < .01, CFIΔ = .051; 95% CI for younger [2.86, 3.10] and older [3.11, 3.26] adolescents), suggesting that younger adolescent mothers reported lower autonomy at W1 than older adolescent mothers (Table 5). There were also age differences in the autonomy slope ($\chi^2\Delta$ (1) = 3.66, p = .055, CFIΔ = .019; 95% CI for younger [.03, .15] and older [−.01, .07] adolescents), suggesting that younger adolescent mothers' autonomy increased from W1 to W5, whereas older adolescent mothers' autonomy did not change. Note that in all analyses we tested for quadratic growth; none of the quadratic growth parameters were significant, suggesting that the type of changes evidenced across W1 to W5 were linear.

Trajectories of ERI and Autonomy Predicting Adolescent Mothers' Well-being at W6

Next, we tested four conditional growth models (i.e., one for each trajectory of interest) to examine if adolescent mothers' trajectories of ERI exploration, ERI resolution, ERI affirmation, and autonomy predicted their well-being at W6. In all models, W6 depressive symptoms, W6 self-esteem, and W6 risk-taking behaviors were regressed on trajectories' intercepts and slopes. Prior levels of depressive symptoms (W1), self-esteem (W1), and risk-taking behaviors (W1) were included as controls on W6 outcomes. Further, W1 individual characteristics (i.e., W1 adolescent age, adolescent nativity) were modeled as control variables on W6 outcomes. Note that across models, the only significant individual-level control variable was adolescent nativity on W6 risk-taking behaviors; the standardized betas ranged from .14 (*SE* = .08) to .18 (*SE* = .08; *p* values ranged from .02 to .06), suggesting that U.S.-born adolescent mothers reported greater risk-taking behaviors than their Mexico-born counterparts. As seen in Figure 1a, for ERI exploration, results revealed that the intercept (i.e., W1 ERI exploration) did not predict W6 outcomes; the ERI exploration slope, however, was a significant predictor of W6 self-esteem and W6 risk-taking behaviors. Specifically, a steeper positive ERI exploration slope from W1 to W5 predicted higher self-esteem and lower engagement in risk-taking behaviors at W6.

For ERI resolution (see Figure 1b), the intercept (i.e., W1 ERI resolution) positively predicted self-esteem at W6, indicating that those with lower levels of ERI resolution at W1 demonstrated lower self-esteem at W6. The ERI resolution slope did not predict W6 outcomes. For ERI affirmation (see Figure 2a), the intercept (i.e., W1 ERI affirmation) negatively predicted W6 depressive symptoms and positively predicted W6 self-esteem;

thus, adolescent mothers with higher levels of ERI affirmation at W1 reported lower levels of depressive symptoms and higher self-esteem at W6. Note that the model would not converge when we specified ERI affirmation slope as a predictor of W6 outcomes, due to the limited variability in the sample's affirmation slope. Thus, we proceeded with a model in which the slope variance and the paths from the slope to W6 outcomes were fixed to zero.

Finally, for autonomy (see figure 2b), the intercept (i.e., W1 autonomy) was negatively related to W6 depressive symptoms and positively related to W6 self-esteem; adolescent mothers who reported higher levels of autonomy at W1 reported fewer depressive symptoms and higher self-esteem at W6. The slope also significantly predicted W6 outcomes, such that a steeper increase in autonomy from W1 to W5 was associated with significantly lower depressive symptoms, lower engagement in risk-taking behaviors, and higher self-esteem at W6.

Discussion

Adolescent parenthood requires adolescent females to simultaneously adjust to their new status as mothers and to continue to negotiate the normative developmental features of the period of adolescence. The transition to *adolescent* motherhood, which requires increased reliance on others such as parents for assistance and guidance (Contreras et al., 2002), is potentially at odds with the normative developmental tasks of adolescence, including developing autonomy and a confident sense of one's identity. However, to our knowledge, no studies have examined whether adolescent mothers' trajectories of these normative developmental processes follow theoretically prescribed progressions. The current findings suggest that adolescent mothers who started the study as 15-year olds, indeed, generally experienced an increasing trajectory for autonomy granting, ERI exploration, ERI resolution, and ERI affirmation that is consistent with theoretically prescribed notions for these constructs from middle to late adolescence (e.g., Zimmer-Gembeck & Collins, 2003; Umaña-Taylor et al., 2014). Furthermore, holding age at W1 constant, our findings indicated that trajectories of autonomy development and of ERI exploration over time were associated with better psychosocial adjustment among adolescent mothers in young adulthood (i.e., higher self-esteem and lower risk-taking behavior); moreover, increases in autonomy were also associated with lower depressive symptoms in young adulthood. These findings underscore the need for researchers and practitioners to recognize that, although adolescent mothers are experiencing transitions that are not normative during adolescence (e.g., pregnancy, parenting), they *also* engage in normative developmental processes that must be considered when planning interventions or other forms of programming intended for this population.

Trajectories of Normative Youth Development: The Case of Mexican-origin Adolescent Mothers

Consistent with developmental theories on ERI (e.g., Phinney, 1993; Umaña-Taylor et al., 2004), our findings indicated that adolescent mothers who started the study at the age of 15 reported increasingly engaging in ERI exploration as they progressed from middle adolescence to young adulthood. The younger age at W1 was a key factor in determining

growth in exploration, as we did not find significant increases in exploration over time for adolescent mothers who started the study at age 16 or older. However, regardless of whether they were younger or older adolescents at the start of the study, the progression from adolescence into young adulthood was characterized by increases in adolescent mothers' sense of clarity about their ERI (i.e., resolution) and more positive feelings about their ethnicity. Generally, these findings are consistent with previous empirical work with non-parenting Latina adolescent females (Umaña-Taylor et al., 2009), and support ERI theory indicating that (a) the period of adolescence is one in which youth increasingly explore their ERI and resolve the meaning of their ERI and the role that it will play in their lives (Phinney, 1993), and (b) that youth develop increasingly positive feelings about their ethnic group when their group membership is salient (Umaña-Taylor et al., 2004; 2009). With the current sample of adolescent mothers, we posit that the salience of ethnicity is increased in this context because young mothers may increasingly be contemplating the cultural socialization of their children (Hughes et al., 2006). The moderation that we found by specific developmental period for exploration, however, may emphasize the unique nature of this aspect of ERI development and, specifically, its potentially greater sensitivity to age-graded developmental change.

In contrast to ERI resolution and ERI affirmation, ERI exploration captures a behavioral component, in which adolescents are actively engaging in activities that expose them to their ethnic-racial background. Our findings may have captured a sensitive period whereby if teenage pregnancy occurs at age 16 or later, young women may perceive less freedom to explore because parents and significant others (e.g., teachers, extended family) may have expectations for them to fully assume a parenting role, given their relatively older age that may lead to perceptions of them as young adults who have been granted greater societal freedom/responsibilities such as their ability to obtain a driver's license and to work for pay without restrictions (i.e., the Fair Labor Standards Act restricts the number of hours that youth under age 16 can work; U.S. Department of Labor, 2015). Teens who assume the parenting role at a younger age, on the other hand, may benefit from others' perceptions that the teen mother is still a child herself; this may result in more affordances for younger adolescents, relative to their older counterparts to engage in exploration behaviors that are developmentally normative, despite their teen parent status.

Thus, older adolescent mothers may tend to prematurely commit to different aspects of their identities without an in-depth exploration process (i.e., depicting a classic foreclosed identity based on an Eriksonian framework; Marcia, 1994), due to prematurely being thrust into a more mature role. Similarly, given the significant economic constraints that are common among families of adolescent mothers (Mollborn & Jacobs, 2012), older adolescent mothers also may be relatively more cognizant of economic stress faced by their family, which may lead them to perceive exploration as a luxury that could be delayed to prioritize basic, immediate needs. Thus, rather than engaging in the reflective process of thinking about one's ERI, exploring different meanings of this aspect of their identity, and spending time finding out more about their ethnic-racial heritage, adolescent mothers may move directly into resolving the meaning of this aspect of their identity in an effort to focus on other, perhaps more pressing, demands.

These factors may also help explain the similar findings that emerged for trajectories of autonomy development, in which adolescent mothers who started the study at age 15 demonstrated increases in autonomy as they progressed from middle adolescence to young adulthood, but those who started the study at age 16 or later did not show increases in autonomy over time. Interestingly, those who were age 16 or older at W1 reported higher levels of autonomy at W1 relative to those who were 15 at W1, perhaps reflecting that upon becoming pregnant, older adolescents (who may be perceived as young adults given the increased societal recognition of their maturity communicated by increased sovereignty that is granted at age 16), are granted greater autonomy, but their counterparts who become pregnant at a younger age are provided more affordances to develop greater autonomy throughout adolescence.

Generally, our findings suggest that among those who become pregnant at the beginning of middle adolescence, Mexican-origin adolescent mothers' trajectories of autonomy development appear to follow a pattern of positive growth over the course of middle adolescence and into young adulthood, consistent with theoretically prescribed expectations of change in autonomy over the course of adolescence (Bush et al., 2004). To our knowledge, the current study is the first to examine trajectories of growth in autonomy development among adolescent mothers from any ethnic group. To gain a clearer understanding of adolescent mothers' behaviors and motivations for their behaviors, however, mixed method approaches will be necessary; without complementary qualitative methods, the information gleaned from these quantitative analyses is difficult to interpret.

Adolescent Mothers' Trajectories of Development and Positive Psychosocial Functioning

With non-parenting adolescent samples, scholars have noted that a secure and confident identity (see Rivas-Drake et al., 2014, for a review), and normative increases in autonomy during adolescence (Bush et al., 2004) are associated with better psychosocial functioning; our findings extend these associations to Mexican-origin adolescent females who are making the transition to parenthood during adolescence. First, increasing trajectories of ERI exploration were associated with higher self-esteem and lower engagement in risky behaviors in young adulthood. Although adolescent mothers in our sample did not, as a group, demonstrate an increasing trajectory of ERI exploration, the young women who did demonstrate increasing ERI exploration over time demonstrated better adjustment in young adulthood, after accounting for their levels of adjustment prior to the transition to motherhood. Consistent with general identity theory (Erikson, 1968) and specifically with ERI theory (e.g., Umaña-Taylor et al., 2004), these findings suggest that engaging in the process of ERI exploration had positive implications for the psychosocial adjustment of adolescent mothers in this sample.

Similarly, adolescent mothers' growth in autonomy development was significantly predictive of lower depressive symptoms, lower engagement in risk behaviors, and higher self-esteem in young adulthood, accounting for their prior levels of adjustment. These findings support theoretical notions that increases in autonomy are important for adolescent mothers by perhaps enabling them to feel more independent, mature, and respected (Shapiro, 2003).

Furthermore, the findings underscore just how important it is for adolescent mothers to follow a developmentally prescribed increasing progression of autonomy from middle to late adolescence, consistent with theoretical notions (Zimmer-Gembeck & Collins, 2003). As adolescent mothers reported significant increases in autonomy over time, they also reported better psychosocial functioning, accounting for their psychosocial functioning at the onset of the study. Furthermore, the longitudinal design of the current study enables our findings to significantly extend prior work, which demonstrated that greater perceived autonomy was concurrently associated with positive adjustment among adolescent mothers (Nadeem & Romo, 2008). Together, our findings regarding changes in ERI and autonomy over the course of adolescence and into young adulthood suggest that adolescent mothers are, indeed, progressing through and achieving developmental milestones in a manner that is theoretically expected for all adolescents. Moreover, the normative progression of processes of ERI exploration and autonomy have important ramifications for the psychosocial adjustment of these young women when they enter into young adulthood and, thus, provide potential targets to consider for intervention programming with adolescent mothers.

Although trajectories of ERI resolution and affirmation did not predict adolescent mothers' psychosocial functioning during young adulthood, *initial* levels of ERI resolution (prior to their transition to parenting) were positively associated with adolescent mothers' self-esteem, and *initial* levels of ERI affirmation were positively associated with self-esteem and negatively associated with depressive symptoms. These associations suggest that changes in these two ERI components during the course of adolescence are not particularly consequential for adolescent mothers' adjustment in young adulthood, but that higher levels of these ERI constructs in adolescence may indeed serve a promotive function for adolescent mothers' lower depressive symptoms (in the case of ERI affirmation) and for their self-esteem (in the case of both ERI affirmation and resolution) in young adulthood. Furthermore, these findings provide support for the notion that different aspects of ERI can have distinct implications for youths' adjustment (Rivas-Drake et al., 2014), at least in the case of Mexican-origin adolescent mothers. In the only study to our knowledge that has examined the links between ERI and adjustment among adolescent mothers, Sieger and Renk (2007) found that higher composite ERI scores were concurrently associated with lower internalizing behavior problems and higher self-esteem among pregnant and parenting Latina adolescents. Our findings extend this prior work by examining *individual* ERI components as predictors of adolescent mothers' adjustment, and providing evidence of *longitudinal associations*.

Strengths, Limitations, and Directions for Future Research

The current study examined trajectories of ERI and autonomy development during adolescent mothers' transition from pregnancy through the first five years of parenting, and found that positive growth trajectories during adolescence were associated with better psychosocial functioning in early adulthood. Our study is characterized by many strengths, such as the examination of multiple indices of psychosocial functioning that capture both adjustment and maladjustment (i.e., self-esteem, depressive symptoms, involvement in risky behaviors); longitudinal data spanning 6 years for a hard-to-reach, high-risk population; and the use of rigorous analytic techniques that enable an examination of growth trajectories

over an extended period of time. Nevertheless, there are limitations to acknowledge that should be considered in future research. First, the current study was limited to *adolescents' reports* of developmental processes and indices of adjustment. Given the possibility of shared method and reporter bias, it would be informative for future studies to assess adolescents' adjustment via other methods (e.g., teachers' assessments, school social workers' evaluations, parents' reports).

Second, we focused specifically on *Mexican-origin* adolescent mothers; however, the processes examined in the current study related to ERI should be applicable across adolescents from diverse ethnic minority populations in the U.S., given the salience of ethnicity in this context (Umaña-Taylor et al., 2014). Although the specific content of individuals' ERI may vary across ethnic-racial groups (e.g., learning a specific language, understanding history specific to one's group), the processes by which individuals explore and reach a sense of resolution regarding their ERI should not vary across groups. Furthermore, the benefits of engaging in these normative developmental processes are expected to be universal, as engaging in these processes is believed to provide youth with confidence and self-assuredness with respect to this aspect of their identity, which can promote general self-concept and provide youth with effective tools with which to contend with potential cultural-related stress (Umaña-Taylor, 2015). In an effort to examine this notion, however, future work is needed to test the extent to which the current findings replicate with samples of adolescent mothers from other ethnic groups.

Third, although this study was informative in describing trajectories of development for Mexican-origin adolescent mothers and their links to adjustment, we did not have a control group of non-parenting adolescents or ethnic majority adolescent mothers; thus, our discussion regarding how these trajectories and associations were similar to or different from the experiences of non-parenting adolescents or ethnic majority youth was limited to comparisons of our findings with the findings in the existing literature with such populations. Future long-term longitudinal studies should include large and ethnically diverse samples of both parenting and non-parenting adolescents to enable an examination of the extent to which the differences (and similarities) about which we speculated by comparing our findings to prior work, indeed emerge.

Finally, we focused on adolescent mothers during middle to late adolescence, and prior work has noted that experiences of adolescent pregnancy and parenthood vary considerably in early versus middle-to-late adolescence. Thus, variability by these developmental periods must be considered (Miller-Johnson et al., 1999); our modest sample size did not enable testing of moderation by adolescent age for the more complex conditional growth models, but our findings examining moderation by age in trajectories of change noted important differences for those who became pregnant at age 15 versus at age 16 and older. We controlled for age in our conditional growth models, but it will be important for future studies with larger samples to examine whether the links between trajectories of normative development and adolescent adjustment vary by the age at which the transition to adolescent parenthood occurs.

Conclusion

In closing, optimal parenting is most likely to emerge when parents are personally mature and psychologically well-adjusted (Belsky, 1984); thus, understanding how the normative developmental progression of autonomy development and ethnic-racial identity formation among adolescent mothers can have benefits for their psychosocial functioning is of paramount significance. An abundance of literature has focused on the risks and stressors that characterize adolescent parenthood and the resulting negative outcomes for adolescent mothers and their children (e.g., Hoffman & Maynard, 2008; Pinzon, Jones, Committee on Adolescence, & Committee on Early Childhood, 2012; Whitman, Borkowski, Keogh, & Weed, 2001). Though likely unintentional, such an approach tends to define adolescent mothers by the stressors and limitations of adolescent parenthood and does little to emphasize the *normative* developmental aspects of these young women's experiences. In contrast, the current study highlights the developmentally *normative* experiences of adolescent mothers and identifies the developmental contexts that are ideal for adolescent mothers' positive adjustment. If replicated, these findings will have important implications for intervention programming with adolescent mothers and, importantly, will provide a non-stigmatizing approach (i.e., focused on normative developmental processes) with which to intervene in the lives of adolescent mothers. Furthermore, the findings could have far-reaching social and economic implications, as increased investments in promoting adolescent mothers' normative developmental trajectories could result in better mental health and adjustment among adolescent mothers, potential gains in education and career prospects for this high risk group and, ultimately, contribute to decreasing existing disparities in developmental adjustment among children of teenage mothers.

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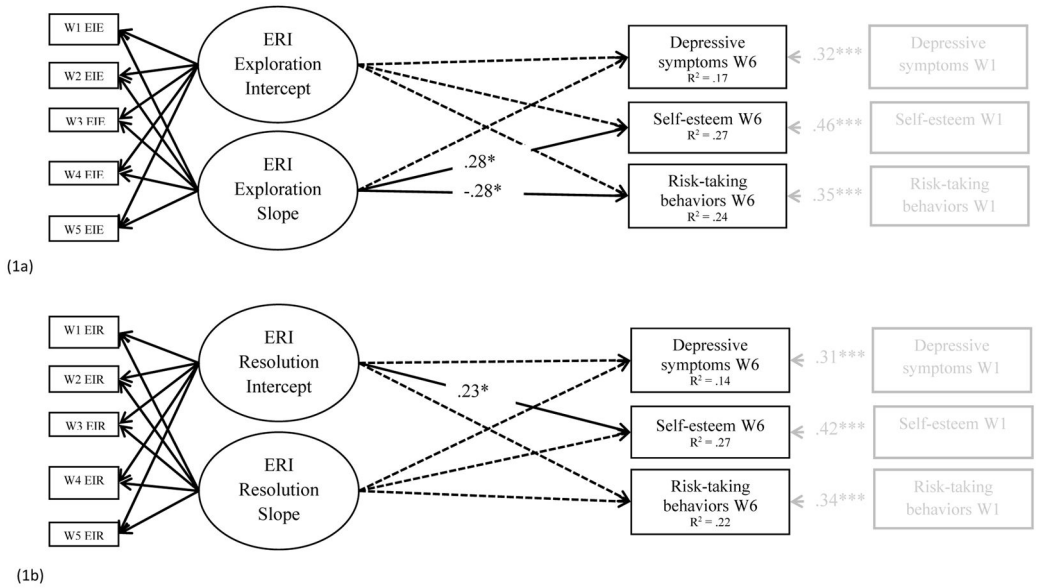

Figure 1.

Figure 1a and 1b. Latent Growth Models of (1a) W1 to W5 ERI exploration and (1b) W1 to W5 ERI resolution predicting W6 outcomes, controlling for W1 outcomes, adolescents' age at W1, and nativity. Standardized beta coefficients are presented. Dashed black lines are non-significant paths. W1 = Wave 1; ERI = Ethnic-racial identity; EIE = ERI Exploration; EIR = ERI Resolution. Fit indices for Model 1a: χ^2 (40) = 29.77, *ns*, CFI = 1.00, RMSEA =. 00; Model 1b: χ^2 (40) = 40.69, *ns*, CFI = .998, RMSEA =. 01. **p* < .05, ****p* < .001. CFI = Comparative fit index; RMSEA = Root mean square error of approximation.

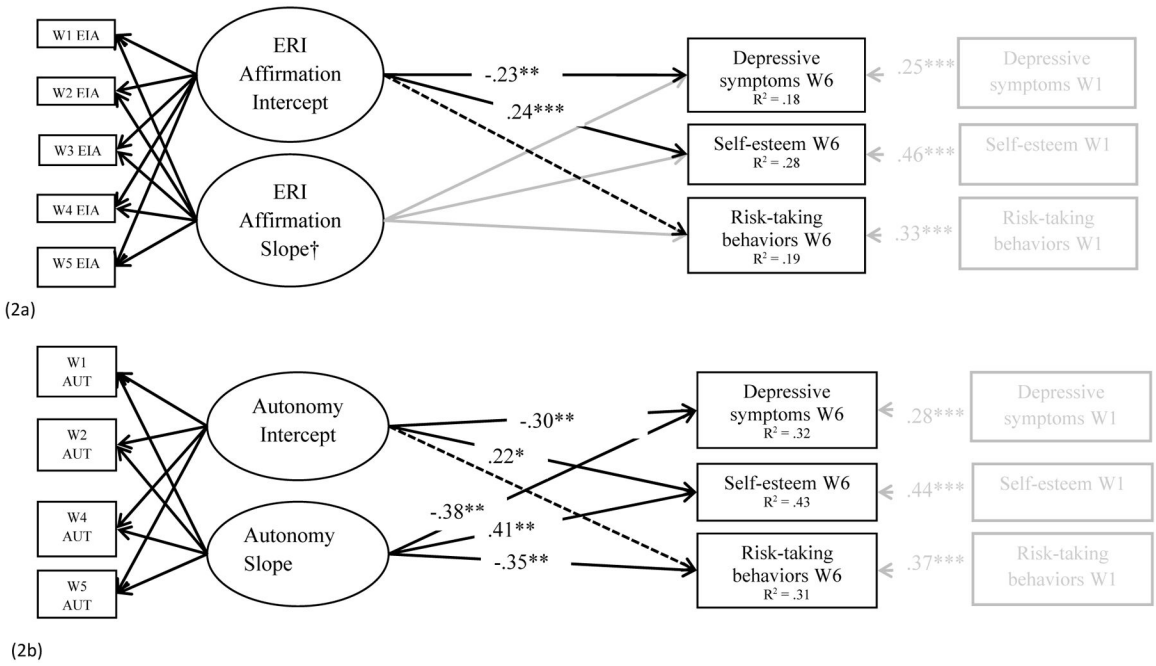

Figure 2.

Figure 2a and 2b. Latent Growth Models of (2a) W1 to W5 ERI affirmation and (2b) W1 to W5 autonomy predicting W6 outcomes, controlling for W1 outcomes, adolescents' age at W1, and nativity. ERI = Ethnic-racial identity; EIA = ERI Affirmation; AUT = Autonomy. Standardized beta coefficients are presented. Dashed black lines are non-significant paths. †For the affirmation model, slope variance and the paths from the slope to W6 outcomes were fixed to zero (in grey). Fit indices for Model 2a: χ^2 (50) = 78.27, *ns*, CFI = .95, RMSEA =. 06; Model 2b: χ^2 (27) = 29.48, *ns*, CFI = .99, RMSEA =. 04. **p* < .05, ***p* < .01, ***p < .001. CFI = Comparative fit index; RMSEA = Root mean square error of approximation.

Table 1

Means, Standard Deviations, and Ranges for Study Variables.

	Mean (SD)	Range
Ethnic-racial identity exploration		
Wave 1	2.89 (.72)	1.43 – 4.00
Wave 2	2.86 (.65)	1.29 – 4.00
Wave 3	2.89 (.65)	1.14 – 4.00
Wave 4	2.93 (.71)	1.14 – 4.00
Wave 5	2.93 (.65)	1.00 – 4.00
Ethnic-racial identity resolution		
Wave 1	3.29 (.71)	1.00 – 4.00
Wave 2	3.39 (.64)	1.00 – 4.00
Wave 3	3.52 (.61)	1.00 – 4.00
Wave 4	3.45 (.66)	1.00 – 4.00
Wave 5	3.49 (.59)	1.00 – 4.00
Ethnic-racial identity affirmation		
Wave 1	3.81 (.48)	1.50 – 4.00
Wave 2	3.81 (.41)	2.00 – 4.00
Wave 3	3.85 (.45)	1.00 – 4.00
Wave 4	3.89 (.34)	1.67 – 4.00
Wave 5	3.90 (.33)	1.67 – 4.00
Autonomy		
Wave 1	3.14 (.45)	1.50 – 4.00
Wave 2	3.15 (.53)	1.40 – 4.00
Wave 4	3.35 (.57)	1.60 – 4.00
Wave 5	3.34 (.59)	1.00 – 4.00
Depressive symptoms		
Wave 1	.87 (.49)	.00 – 2.35
Wave 6	.66 (.59)	.00 – 2.55
Self-esteem		
Wave 1	3.23 (.45)	2.00 – 4.00
Wave 6	3.49 (.49)	1.80 – 4.00
Risk-taking behaviors		
Wave 1	1.47 (.39)	1.00 – 3.47
Wave 6	1.18 (.25)	1.00 – 2.82

Table 2

Bivariate Correlations among Study Variables (N = 181).

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.
1. EIE_1	--																									
2. EIE_2	.50***	--																								
3. EIE_3	.38***	.43***	--																							
4. EIE_4	.33***	.35***	.46***	--																						
5. EIE_5	.31***	.44***	.44***	.54***	--																					
6. EIR_1	.51***	.37***	.29***	.17*	.25**	--																				
7. EIR_2	.27***	.42***	.25**	.13	.30***	.49***	--																			
8. EIR_3	.23**	.28***	.48***	.16	.23**	.34***	.27***	--																		
9. EIR_4	.22**	.20*	.27**	.52***	.33***	.27**	.29***	.28***	--																	
10. EIR_5	.18*	.23**	.33***	.41***	.51***	.27***	.36***	.28**	.54***	--																
11. EIA_1	.07	.04	.06	-.01	.18*	.14	.22**	.14	.11	.04	--															
12. EIA_2	−.03	.12	−.01	−.06	.21**	.15*	.26***	.18*	.16	.14	.42***	--														
13. EIA_3	−.03	−.00	.11	−.05	−.01	.09	.13	.27***	.11	.03	.30***	.40***	--													
14. EIA_4	−.08	−.02	.04	.02	.12	.01	.09	.12	.27***	.06	.49***	.52***	.60***	--												
15. EIA_5	−.10	.09	−.01	−.05	.06	.02	.18*	.09	.08	.09	.59***	.51***	.53***	.71***	--											
16. AUT_1	.14	−.02	.02	.10	.02	.15*	.09	.13	.18*	−.03	.27***	.09	.12	.21**	.13	--										
17. AUT_2	−.08	−.06	.06	−.05	−.01	.01	.12	.18*	−.01	.01	.28***	.18*	.23**	.10	.14	.45***	--									
18. AUT_4	−.03	−.01	.02	.01	.16	.09	.12	.32***	.18*	.20*	.15*	.27**	.21**	.09	.09	.41***	.48***	--								
19. AUT_5	.03	−.04	.02	.00	.21**	.07	.10	.21*	.12	.18*	.20*	.38***	.12	.22**	.23**	.38***	.37***	.56***	--							
20. DEP_1	−.06	−.03	−.08	.06	−.12	−.09	−.05	−.14	−.00	−.06	−.32***	−.25**	−.26***	−.24**	−.22**	−.26***	−.24**	−.10	−.15	--						
21. DEP_6	.05	−.02	−.04	.01	−.18*	−.12	−.12	−.08	−.04	−.07	−.19*	−.30***	−.24*	−.28**	−.20*	−.20**	−.27**	−.32***	−.37***	.39***	--					
22. SE_1	.30***	.17*	.10	.11	.20**	.43***	.21**	.12	.20*	.12	.25***	.24**	.11	.14	.08	.40***	.25**	.20*	.23**	-.49***	-.28***	--				
23. SE_6	.08	.12	.07	.07	.27**	.28***	.21**	.13	.16	.18*	.29***	.36***	.14	.19*	.23**	.23**	.29**	.43***	.36***	−.35***	−.62***	.50***	--			
24. Risk_1	−.05	−.03	.01	.03	−.02	−.09	−.13	.00	−.06	−.10	−.22**	−.00	−.12	−.18*	−.24**	−.13	−.07	.01	−.01	.35***	.18*	−.20**	−.23**			
25. Risk_6	.00	−.07	−.03	−.04	−.17*	−.08	−.06	−.08	−.17*	−.18*	−.12	−.12	−.03	−.14	−.03	−.03	−.10	−.18*	−.16*	.17*	.44***	−.13	−.35***	.41***		
26. Age_1	−.01	.04	−.05	−.13	−.10	.01	.00	−.00	−.09	−.08	.11	.08	−.01	.01	−.00	.19**	.18*	.14	.05	−.09	−.01	.11	.03	−.01	−.08	

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	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.
27. NAT	−.08	−.16*	−.11	−.08	−.07	−.02	−.05	−.08	−.05	−.12	.11	.16*	.09	.00	.10	.15*	.06	.14	.08	.00	.06	−.04	−.05	.21*	.24**	.07

Note. EIE_1 to EIE_5 = Ethnic-Racial Identity Exploration W1 to W5; EIR_1 to EIR_5 = Ethnic-Racial Identity Resolution W1 to W5; EIA_1 to EIA_5 = Ethnic-Racial Identity Affirmation W1 to W5; AUT_1 to AUT_5 = Autonomy W1 to W5; DEP_1 = Depressive symptoms W1; DEP_6 = Depressive symptoms W6; SE_1 = Self-esteem W1; SE_6 = Self-esteem W6; Risk_1 = Risk-taking behaviors W1; Risk_6 = Risk-taking behaviors W6. Age_1 = Adolescent mothers' age at W1; NAT = adolescent mother nativity (0 = Mexico-born, 1 U.S.-born).

* $p < .05$,

** $p < .01$,

*** $p < .001$.

Correlations computed in Mplus, accounting for missing data and utilizing full information maximum likelihood.

Table 3

Latent Growth Model for Ethnic-Racial Identity Exploration (N = 181).

	Younger Adolescents (*n* = 47) *b* (SE)	**Older Adolescents (*n* = 134) *b* (SE)**
Intercept (W1)	2.81 (.09)***	2.90 (.05)***
Slope	.08 (.03)*	.00 (.02)
Nativity[a]	−.01 (.03)	−.01 (.03)
Intercept variance	.16 (.06)***	.18 (.03)***
Slope variance	.01 (.01)	.01 (.00)

Note. Model fit: χ^2 (31) = 40.69, *ns*, CFI = .95, RMSEA = .06; W1 = Wave 1. CFI = Comparative fit index; RMSEA = Root mean square error of approximation.

[a]Adolescent mothers' nativity modeled as a predictor of the slope factor but constrained to be equal across younger and older adolescents. Nativity coded as 0 = Mexico born, 1 = U.S.-born.

*$p < .05$,

***$p < .001$.

Table 4

Latent Growth Models for Ethnic-Racial Identity Resolution and Affirmation (N = 181).

	Resolution Model ***b* (SE)**	***Affirmation Model*** ***b* (SE)**
Intercept (W1)	3.34 (.04)***	3.80 (.03)***
Slope	.06 (.02)**	.03 (.01)*
Nativity[a]	−.03 (.02)	−.00 (.01)
Intercept variance	.13 (.02)***	.08 (.01)***
Slope variance	.01 (.00)*	.00 (.00)

Note. Model fit for Resolution: χ^2 (15) = 25.88, $p < .05$, CFI = .92, RMSEA = .06. Model fit for Affirmation: χ^2 (15) = 21.82, *ns*, CFI = .98, RMSEA = .05. W1 = Wave 1. CFI = Comparative fit index; RMSEA = Root mean square error of approximation.

[a]Adolescent mothers' nativity modeled as a predictor of the slope factor. Nativity coded as 0 = Mexico-born, 1 = U.S.-born.

*$p < .05$,

**$p < .01$,

***$p < .001$.

Table 5

Latent Growth Model for Autonomy (N = 181).

	Younger Adolescents (*n* = 47) ***b*** **(SE)**	**Older Adolescents (*n* = 134)** ***b*** **(SE)**
Intercept (W1)	2.98 (.06)***	3.18 (.04)***
Slope	.08 (.03)**	.03 (.02)
Nativity[a]	.02 (.03)	.02 (.02)
Intercept variance	.09 (.03)**	.11 (.02)***
Slope variance	.01 (.00)	.01 (.00)*

Note. Model fit: χ^2 (19) = 24.57, *ns*, CFI = .96, RMSEA = .06; W1 = Wave 1. CFI = Comparative fit index; RMSEA = Root mean square error of approximation.

[a]Adolescent mothers' nativity modeled as a predictor of the slope factor but constrained to be equal across younger and older adolescents. Nativity coded as 0 = Mexico-born, 1 = U.S.-born.

*$p < .05$,

**$p < .01$,

***$p < .001$.