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A Longitudinal Examination of Early Adolescence Ethnic Identity Trajectories

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Abstract

Early adolescence is marked by transitions for adolescents, and is also a time for identity exploration. Ethnic identity is an essential component of youths' sense of self. In this study we examined the trajectories of ethnic identity for adolescents from ethnic minority backgrounds during a 4-year period. Six latent class trajectories were identified in the study: the majority of adolescents (41.8%) displayed growth in ethnic identity over 4 years, followed by 30.1% whose high levels of ethnic identity remained stable, then by those who experienced moderate decreases in ethnic identity (10.8 percent). Another class of adolescents (7.3%) showed significant declines in ethnic identity level, followed by 5.5% of adolescents with significant increases, and finally by 4.5% of adolescents with low stable levels of ethnic identity during this developmental period. The classes differed by ethnicity, and adolescents with increasing high levels of ethnic identity reported better parent–child relationships. Findings and implications are discussed.

Keywords

ethnic minority adolescents; ethnic identity; latent class growth analysis; ethnicity; parent–child relationships

According to the United States Census (2000), approximately 20% of the United States population consists of people from ethnic minority backgrounds. The representation of people of color in the population is expected to significantly increase in the next few decades (U.S. Bureau of the Census, 2009). Furthermore, the number of people with multiple ethnic backgrounds is on the rise (Choi, Harachi, Gillmore, & Catalano, 2006). This shift in the ethnic makeup of the American people suggests that the majority of youth in this country will develop as a person of color, further underscoring the importance for researchers to better understand the best ways in which development can be enhanced for these youth.

Ethnic identity is an essential component of a healthy overall identity and is seen as a contributor to a well-established self-concept for youth (Phinney, 1992; Phinney & Ong, 2006). In particular, ethnic identity has been established as an important aspect of identity development for ethnic minority youth and is associated with many positive psychological outcomes in adolescence for these youth (Phinney & Chavira, 1992; Romero & Roberts, 2003; Yasui, Dorham, & Dishion, 2004; Yip & Fuligni, 2002). Past studies have shown that youth with higher levels of ethnic identity have higher self-esteem and better academic achievement (Phinney & Chavira, 1992; Roberts et al., 1999; Rumbaugh Whitesell, Mitchell, Spicer, & The Voices of Indian Teens Project Team, 2009; Smith, Levine, Smith, Dumas, & Prinz, 2009; Umaña-Taylor, Vargas-Chanes, Garcia, & Gonzales-Backen, 2008). Adolescents with a high level of ethnic identity also report lower depression and better

overall psychological adjustment (Phinney, 2003; Phinney & Chavira, 1995; Rumbaugh Whitesell et al., 2009; Umaña-Taylor, Diversi, & Fine, 2002; Yasui et al., 2004).

Despite the large body of literature about ethnic identity, surprisingly few studies have examined the longitudinal growth of ethnic identity in adolescence. Moreover, few studies have focused on ethnic identity development in early adolescence, a time when one's personal identity becomes increasingly salient (Tatum, 1997). The transitions that commonly occur in early adolescence (e.g., progressing from elementary to middle to high school) present adolescents with additional experiences that contribute to their identity development, such as attending a more ethnically diverse school and interacting with peers of various ethnicities (García Coll et al., 1996). These experiences may have a profound influence on the growth of ethnic identity, particularly for ethnic minority adolescents. In our study we sought to examine the trajectories of ethnic identity during a 4-year period in middle adolescence when the transition from elementary to middle to high school occurs, and identify how these trajectories may be related to positive parent–child relationships.

It is well established that the formation of a healthy ethnic identity is dependent on one's early experiences with one's parents and caregivers. As has been shown in past research, parents transmit their ethnic identity to their children through parenting (Inman, Howard, Beaumont, & Walker, 2007). More specifically, parents who teach and prepare their children to live in a diverse world are more likely to have adolescents with a higher level of ethnic identity and improved skills for coping with discrimination (Phinney & Chavira, 1992; Umaña-Taylor et al., 2008; Wills et al., 2007). In other studies, researchers found that youth who received positive messages about ethnic pride from their parents felt more connected to others from their own ethnic background (Umaña-Taylor et al., 2008). Also, parents who provide more racial socialization and support for the development of a healthy ethnic identity have better relationships with their children (Lamborn & Felbab, 2003). Similarly, parental support of ethnic identity development is a predictor of an achieved personal identity for African American and Latino adolescents (Hall & Brassard, 2008).

In some existing models, ethnic identity is a fluid construct that begins to develop in early childhood and continues to develop into adulthood (Phinney, 2006; Phinney & Ong, 2006). As such, these models are an acknowledgment of the influence that parent–child relationships and early life experiences have on ethnic identity formation. Ethnic identity can be seen not only from a developmental perspective (Erikson, 1968), but also as a process that is susceptible to context, in that social and environmental factors contribute to a sense of connection to one's ethnic group (Phinney, 1992; Roberts et al., 1999). The influence of family socialization and the experiences outside of one's family present adolescents with social cues that help mold their interpretations of their race and ethnicity (Garcia Coll et al., 1996). This conceptualization of ethnic identity is based on the social psychology model of social identity (Tajfel, 1981), in which a person's self-concept is defined by identification with a social group and the emotional significance of attachment to that group. This model is the foundation for the commonly accepted model of ethnic identity proposed by Phinney (1989), who defined ethnic identity in three stages: (a) commitment and attachment–the extent of an individual's sense of belonging to his or her group, (b) exploration–engaging in activities that increase knowledge and experiences of one's ethnicity, and (c) achieved ethnic identity–having a clear sense of group membership and what one's ethnicity means to the individual.

In contrast to youth in the majority group, ethnic minority youth often grow up in social environments that highlight their ethnic background. As a result, awareness of their own ethnicity and that of others activates the formation of an ethnic identity. From a cognitive–developmental perspective, young children become aware of their own ethnicity and ethnic

differences in physical and concrete ways (e.g., skin color, language, food), but they are unable to fully understand the implications of these differences (Quintana, 1994; Quintana, Castaneda-English, & Ybarra, 1999). When children are young, messages and cues regarding ethnicity and ethnic identity are generated from parents and other primary caregivers. However, as children get older, their awareness of the social inferences of ethnicity grows and comprehension of concepts such as discrimination and prejudice become more concrete (Quintana, 1994).

In early adolescence, children's working knowledge about ethnicity and their own ethnic identity increases in relevance as they begin to spend more time with peers and people outside of their familial context (Phinney, 1989). In fact, research results have revealed that levels of ethnic affirmation increased during adolescents' transition into middle school, especially among African American and Latino youth (French, Seidman, Allen, & Aber, 2006). Furthermore, researchers have found that compared with elementary school youth, middle school youth more often segregate themselves by ethnicity and race (Seidman, Aber, & French, 2004; Tatum, 1997). Thus, the emerging salience of ethnicity and of social changes that occur during early adolescence is a crucial reason to examine ethnic identity in this critical developmental period.

This Study

Despite the breadth of knowledge about the influence of ethnic identity on youth and adolescent outcomes and the factors contributing to an individual's sense of identity, the development of ethnic identity has received little research attention to date. Particularly lacking is research in which the trajectory of ethnic identity development in early adolescence is examined. This is surprising, in that ethnic identity has been shown to be highly vulnerable to numerous contextual elements during this critical developmental period (Phinney & Ong, 2006; Tatum, 1997). Recently, researchers have begun to examine growth trajectories of ethnic identity and have found evidence to suggest that ethnic identity increases over time (French, et al., 2006; Matsunaga, Hecht, Elek, & Ndiaye, 2010; Pahl & Way, 2006). More specifically, French et al. (2006) found that multiple components of ethnic identity (group esteem and ethnic awareness) increased for early adolescents, and as youth reached middle adolescence, their exploration of their ethnic identity grew as well. In addition, Pahl and Way (2006) discovered decreasing levels of ethnic identity exploration from middle to late adolescence, suggestive of an achieved ethnic group membership at that age after higher levels of exploration in early adolescence. More recently, Matsunaga et al. (2010) found similar trends of increasing ethnic identity exploration in early adolescence for American youth of Mexican heritage.

The need for more empirical evidence concerning the developmental trajectory of ethnic identity is increasing while this area of research continues to grow. Though new studies have begun to explore ethnic identity growth using longitudinal data and analytical methods (Matsunaga et al., 2010; Pahl & Way, 2006), many still use cross-sectional data to determine ethnic identity change over time (Phinney & Ong, 2006). Thus, it is crucial to explore these trajectories and their associated outcomes to better understand minority youths' ethnic identity development.

During the middle school years when the search for personal identity emerges, adolescents begin to separate into groups according to ethnicity (Tatum, 1997). It is therefore expected that ethnic identity levels undergo dramatic changes during this time. As children become increasingly involved with their peers during this period, the racial and ethnic socialization they received from their parents and caregivers during childhood likely will carry over to their interactions with their peers. Thus, in our study we examined the growth trajectories of ethnic identity for a large sample of various ethnic minorities during a 4-year period. We

hypothesized that ethnic minority adolescents would differ in ethnic identity growth trajectories in early adolescence (sixth through ninth grade). On the basis of Phinney's (1989) model of ethnic identity development that suggests that early adolescence is a time when ethnic identity begins to increase in salience for youth, we expected to find an increased level of ethnic identity in the majority of adolescents across the 4 years. In addition, we examined the parent–child relationships of the adolescents in ninth grade to determine if these relationships did or did not vary for youth with different growth trajectories. Although it is well understood that parenting practices greatly influence youth ethnic identity development (Phinney & Chavira, 1992; Umaña-Taylor et al., 2008), and that these practices often promote a positive parent–child relationship (Lamborn & Felbab, 2003), little is known about how these relationships relate to youth ethnic identity change during early adolescence. Thus, we hypothesized that adolescents with different trajectories of ethnic identity growth over time have differing relationships with their parents, and that adolescents with a higher level of ethnic identity have more positive relationships with their parents than do adolescents with a lower level of ethnic identity.

Method

Participants

Our study used existing data from a large, multiwave, longitudinal intervention study (Project Alliance 2 [PAL 2]; DA 018374). Currently in its fifth year, the PAL 2 study was designed to prevent the development and growth of adolescent problem behaviors by supporting families and adolescents in the transition from middle school to high school. The study included 593 adolescents and their families across three public middle schools in an urban area of the Pacific Northwest. During the sixth grade year, all parents of sixth grade students were invited to participate in the study, and 80% agreed to do so. Consent forms were mailed to parents or sent home with students.

At recruitment, the sample comprised 51% male participants and 49% female participants, and the racial/ethnic composition was as follows: European American, 36%; Latino/Hispanic, 18%; African American, 15%; Asian/Pacific Islander, 9%; American Indian, 2%; and biracial/mixed ethnicity, 19%. More than 80% of youth were retained across the 4 years of the study.

Because our study's focus was on ethnic identity growth and development for ethnic minority youth, the subsample included only the adolescents whose self-identified ethnicity was not European American. The sample included 379 ethnic minority adolescents and consisted of 49.6% males (n = 188) and 50.4% females (n = 191). The mean age at sixth grade was 11.90 years, and the ethnic composition was as follows: 28.2% Hispanic/Latino adolescents (n = 107), 23.7% African American adolescents (n = 90), 14% Asian/Pacific Islander American (n = 53), 4% American Indian/Native American (n = 15), and 30.1% multiethnic adolescents (n = 114). Independent sample t-tests revealed no mean differences on outcome variables for this subsample and the larger sample.

Procedure

Surveys were administered at school to all participants in the study. The surveys were adapted from an Oregon Research Institute survey and questionnaires used in prior research (Metzler, Biglan, Rusby, & Sprague, 2001). The school surveys were collected in the spring during class time, at Wave 1 (sixth grade), Wave 2 (seventh grade), Wave 3 (eighth grade), and Wave 4 (ninth grade). Adolescents received $20 for participation at each wave.

Measures

Demographic information—Adolescents provided demographic information about their age, gender, and ethnicity.

Ethnic identity—The Multigroup Ethnic Identity Measure (MEIM; Phinney, 1992) was used to measure adolescents' commitment to and achievement of ethnic identity from sixth grade through ninth grade. The MEIM is based on Phinney's (1989) ethnic identity stage model and was developed to assess ethnic identity across groups. The MEIM is used to examine an individual's sense of belonging to their ethnic group, one's attitudes about the group, and identification with it. Designed to measure ethnic identity in terms of all ethnic groups (as opposed to specific ethnic groups, e.g., Mexican American, Chinese American), the MEIM allows one to identify an ethnic group that is most relevant for them. It has three subscales: affirmation and belonging, ethnic identity achievement, and ethnic behaviors. The MEIM has been shown to be reliable for adolescents (α = .81; Roberts et al., 1999). Items were rated on a 4-point scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*) and included statements such as "I know what being in my ethnic group means to me" and "I feel good about my cultural or ethnic background." The ethnic identity mean score is obtained by summing across all the items in the measure.

Our study used an eight-item adapted version of the MEIM to obtain adolescent self-report of levels of ethnic identity. This condensed version of the MEIM yielded high reliability for all waves: *α*s = .90, .90, .92, and .92 for Waves 1, 2, 3, and 4, respectively.

Positive family relationships—At Wave 4, adolescents reported about their relationships with their parents in four items used to assess positive family relationships in the past month. Items were rated on a 5-point scale ranging from 1 (*never or almost never*) to 5 (*always to almost always*) and included statements such as "How often do you talk about problems with your parents?" and "My parents and I have gotten along very well with each other." This measure was reliable for this sample (α = .89).

Family conflict—At Wave 4, adolescents answered four items to assess conflict within their families in the past month. Respondents rated items on a 7-point scale ranging from 1 (*never*) to 7 (*more than 7 times*). Items included "We got angry at each other" and "I got my way by getting angry," and yielded a reliability of α = .78.

Perception of parents—In this seven-item measure, adolescents reported their perception of their parents at Wave 4. Each item ranged on a scale from 1 to 5 and consisted of a term used to describe parents. Items were *unfair–fair*, *mean–nice*, *cold–warm*, *unfriendly–friendly*, *bad–good*, *cruel–kind*, and *dishonest–honest*. This measure was reliable (α = .96).

Positive reinforcement—At Wave 4, four items were used to assess adolescents' impressions of their parents' positive reinforcement in the past month. Items were rated on a 5-point scale ranging from 1 (*never or almost never*) to 5 (*always to almost always*) and included questions such as "When you followed a household rule or did a good job, how often did your parents or caregiver given you a hug, kiss, pat, or kind word?" and "How often have your parents or caregiver praised you or complimented you for anything you did well?" These items yielded a reliability of α = .87.

Data Analysis

Latent growth mixture models (LGMM) were used to identify growth trajectories (classes) of ethnic identity (Muthén, 2004; Muthén & Muthén, 2000). This method was chosen for its

ability to test for the presence of multiple latent groups or classes of individuals within a sample (Wang & Bodner, 2007). In addition, we used LGMM to determine interindividual differences in initial status and change rates of ethnic identity within each latent subpopulation (Wang & Bodner, 2007). To identify latent classes of ethnic identity levels, we used Mplus 5.21 (Muthén, 2004), which uses a robust full information maximum likelihood estimation procedure for handling missing data and assumes missing data are unrelated to the outcome variable and are missing at random (Little & Rubin, 1987).

One- to seven-class unconditional latent growth mixture models were estimated and compared to each other using conventional fit indices to assess model fit. Because conventional chi square–based model fit indices are not available for multiple latent classes, model fit information was obtained from the Bayesian information criterion (BIC), sample-size adjusted Bayesian information criterion (SSABIC), Akaike information criterion (AIC) indices, the Vuong-Lo-Mendell-Rubin likelihood ratio test (VLMR LRT), and the entropy value, which is reported as the posterior reliability of the class solution (Wang & Bodner, 2007).

In addition, one-way, between-subjects analysis of variance (ANOVA) and Tukey's Honestly Significant Difference post-hoc tests were used to probe for differences between the latent classes on four parenting variables at Wave 4 (positive family relations, family conflict, perception of parents, and positive reinforcement).

Results

Descriptive statistics for all variables were examined, including mean, standard deviation, and frequency distributions, to examine the tenability of assumptions required for the proposed statistical analyses. Univariate and bivariate normality were tested and found tenable in the distributions of observed variables. Correlations between independent variables were evaluated with a bivariate correlation matrix and were found to be small to moderate, providing evidence that multicollinearity was not problematic. Further, tolerance values were found to be within normal limits, at greater than .20. Extreme skew and kurtosis, and influential case outliers were examined and found to be within recommended limits (+/ 2.0; Schumacker & Lomax, 2004). Kline (2005) recommends more liberal guidelines, suggesting that standardized skew index values between 3.0 and +3.0 may be considered to be within normal limits, and a standardized kurtosis index of 10.0 to +10.0 may be considered roughly normal. Although multivariate normality is required for linear modeling, careful evaluation of univariate and bivariate normality may provide enough information to assume multivariate normality is tenable, especially when distributions are scanned for extreme outliers (Kline, 2005).

We examined one- to seven-class unconditional models of ethnic identity level. Researchers have recommended using model fit indices less affected by sample size (e.g., SSABIC and entropy values) as opposed to using sample-dependent criteria (e.g., AIC and BIC) for selecting the best-fitting model with larger samples (Yang, 1998). Thus, the totality of these indices, along with the interpretability and theoretical rationale of a given class solution, guided the final model selection, and the model with lower values for the criterion indices, higher entropy value, and significant *p* values for the VLMR LRT was selected as the best solution (Muthén, 2003, 2004; Wang & Bodner, 2007).

The results indicated a six-class model was the optimal representation of the study's data across the four waves. As shown in Table 1, the AIC, BIC, and SSABIC values decreased as the number of classes increased through the fifth class. Furthermore, all models demonstrated adequate entropy values (.77–.84). The increase in entropy value from the six-

class (.83) to the seven-class (.84) models was minor, and the VLMR LRT for the seven-class model decreased in statistical significance. Thus, the combination of the model fit indices, along with the interpretability of the classes, indicated that the six-class model was the best fit of the data.

As can be seen in Figure 1, the six-class solution identified six distinct trajectories of ethnic identity levels over time. A large portion of the sample (n = 171; 41.8%) fell into a category of high initial levels of ethnic identity (M = 3.05) and an pattern of increasing growth across time (slope = .026). This group was labeled *increasing ethnic identity* (IEI). Another trajectory (n = 107; 30.1%) was characterized by high initial ethnic identity (M = 3.25) and a pattern of stable growth across time (slope = .05). This group was labeled *high stable ethnic identity* (HSEI). A third trajectory (n = 38; 10.8%) showed initial high levels of ethnic identity (M = 3.80) and a decline from Wave 1 to Wave 4 (slope = .50). This group was labeled *moderate decreasing ethnic identity* (MDEI). Similarly, the fourth class of adolescents (n = 28; 7.3%) also displayed high initial levels of ethnic identity (M = 3.78), with a significant decline across time (slope = .84). This group was labeled *significant decreasing ethnic identity* (SDEI). A fifth class of adolescents (n = 21; 5.5%) demonstrated low levels of initial ethnic identity (M = 1.16) and an increasing trajectory of growth (slope = .55), and was labeled *significant increasing ethnic identity* (SIEI). Finally, the sixth class (n = 14; 4.5%) was characterized by low initial ethnic identity (M = 1.85) and stable growth over time (slope = .06). This group was labeled *low stable ethnic identity* (LSEI).

Descriptive information (e.g., age, gender, ethnicity) about the adolescents was obtained for each of the six classes (see Table 2). Chi-square and Fisher's Exact tests were conducted to determine whether the six classes differed by gender and ethnicity. Results revealed no gender differences across the classes, $\chi 2(5) = 2.58$, $p < .05$. Because there was a the small number of adolescents in some of the ethnic groups across the classes, a Fisher's exact test was used to examine whether the classes differed significantly in respect to ethnicity. Results indicated significant differences by ethnicity ($p < .001$). As an example of some of these differences, adolescents with multiple ethnicities had the highest representation in each class except for the IEI class. They also comprised the majority of youth in the MDEI class (55.3%). Furthermore, adolescents who identified as Pacific Islanders were represented in only the classes that had high initial ethnic identity levels, and had either a stable level of ethnic identity growth over time or an increase in these levels across the four waves (i.e., HSEI, IEI).

To further examine the six classes, one-way ANOVAs were conducted to determine differences between classes in respect to adolescents' reports of positive family relationships, family conflict, perception of their parents, and positive reinforcement from parents at Wave 4 to determine whether differences existed among the ethnic identity growth trajectories. Table 3 shows the means and standard deviations for each of these parenting variables for the six classes. Levene's Test confirmed that the homogeneity of variance assumption was met for all the variables of interest (ps > .05). The omnibus tests revealed three significant overall effects: positive family relations, $F(5, 309) = 4.36$, $p = .001$, $\eta 2 = .07$; adolescent perception of parents, $F(5, 309) = 4.07$, $p = .001$, $\eta 2 = .06$; and positive reinforcement, $F(5, 309) = 4.51$, $p = .001$, $\eta 2 = .07$. The omnibus test for family conflict, $F(5, 309) = .94$, was not statistically significant (ps > .05).

Tukey's Honestly Significant Difference tests were conducted to further examine mean differences between the six classes for the parenting variables, and significant overall effects were found for positive family relations, perception of parents, and positive reinforcement. Adolescents with a moderate level of declining ethnic identity (the MDEI class; M = 2.82, SD = .96) reported significantly less positive family relations at Wave 4 (p = .02) than did

adolescents with increasing ethnic identity in the IEI class (M = 3.46, SD = 1.09). In addition, adolescents with high stable ethnic identity levels across the four waves (e.g., HSEI class) also reported significantly less positive family relations than did adolescents in the IEI class (p = .01).

Adolescents' perceptions of their parents also differed by group. Those in the MDEI class reported significantly less favorable perceptions of their parents (M = 3.67, SD = 1.01) than did youth in the IEI class (M = 4.21, SD = .92, p = .02). Similarly, adolescents in the HSEI class also reported less favorable perceptions of their parents (M = 3.74, SD = .85) than did adolescents in the IEI class (p = .02). Finally, differences were also found for adolescents' reports of the level of positive reinforcement by their parents. Specifically, adolescents in the HSEI class (M = 2.74, SD = 1.00, p = .01) and the SDEI class (M = 2.50, SD = 1.03, p = .05) reported significantly lower levels of parental positive reinforcement at Wave 4 than did those in the IEI class (M = 3.24, SD = 1.19).

Discussion

Our study examined the growth trajectories of ethnic identity for ethnic minority adolescents from sixth grade through ninth grade. As predicted, latent subpopulations within the sample of ethnic identity growth trajectories were identified, and six latent classes of ethnic identity trajectories were found. Ethnicity differences were also found among the six classes. Furthermore, adolescents with different ethnic identity trajectories differed in respect to their relationships with their parents in ninth grade. These findings and their implications are discussed in detail in the following subsections of this article.

Ethnic Identity Growth Trajectories

Consistent with findings reported previously (French et al., 2006; Matsunaga et al., 2010), our findings indicated that the largest class of ethnic minority adolescents (41.8%) consisted of those whose ethnic identity levels increased during a 4-year time period. Furthermore, the latent classes consisted of a small percentage of adolescents (5.5%) who started with low levels of ethnic identity in sixth grade and experienced a sharp climb in ethnic identity through ninth grade. The increase in ethnic identity may be attributed to a well-formed relationship with parents and caregivers throughout this early adolescence period; studies have indeed shown that minority adolescents report the highest levels of ethnic identity when they are engaging with their parents in positive ways (Kiang & Fuligni, 2009). Recent research has indicated that ethnic identity occurs according to context, and that ethnic minorities express their ethnic identity differentially depending on whether they are engaging with same-ethnicity or different-ethnicity peers (Kiang, Harter, & Whitesell, 2007). Research has also revealed that Chinese adolescents are more likely to feel more Chinese when participating in cultural activities and engaging with peers who are ethnically diverse (Yip & Fuligni, 2002). Thus, this class of adolescents may be at a more well-established stage of ethnic identity development, having undergone more levels of exploration and having gained a better-formed definition of what their ethnicity means to them.

Of particular interest in the study is the finding that the second largest class of adolescents (30.1%) remained at a high, stable level of ethnic identity over the duration of the study. These ethnic minority adolescents started with high initial levels of ethnic identity in sixth grade and stayed on a stable trajectory into ninth grade, suggesting that they may already have had a well-developed sense of their ethnicity and ethnic group membership at the beginning of early adolescence. These findings may be explained by the demographics of the geographic location in which this study was conducted: the Pacific Northwest is less ethnically diverse than are areas where previous studies were conducted, such as the

southwestern United States (Matsunaga et al., 2010). Therefore, ethnic minority youth developing in the context of a primarily European American culture may undergo identity exploration sooner than youth in more diverse parts of the United States.

Another class of adolescents (4.5%) showed a stable trajectory, except in this case, these adolescents started with low initial values of ethnic identity and remained at this low level over time. Adolescents in this class may have received fewer messages about racial and ethnic socialization from parents, bearing in mind that children acquire the meaning of their ethnicity from their parents and caregivers prior to adolescence (Phinney, 2006; Phinney & Chavira, 1992). The stability of the ethnic identity levels in this group suggests that these adolescents had yet to encounter experiences that promote ethnic identity exploration and affirmation.

Finally, two classes of adolescents started with high ethnic identity levels that either decreased moderately (10.8%) or significantly (7.3%). The high initial values of ethnic identity, followed by the declining slope, indicate that underlying mechanisms prompting ethnic identity may not be relevant in these cases. One explanation may be that these youth were transitioning from racially and ethnically homogenous middle schools to heterogeneous high schools. Because part of ethnic identity development involves the resolution of one's feelings about one's own and other ethnic groups (Phinney, 1992, 2006), this finding may be indicative of the adolescents' lack of resolution. Furthermore, this finding may also suggest that these adolescents were associating with peers outside their own ethnic group, which may have contributed to the pattern of decreasing ethnic identity development. The influence of peers becomes increasingly important in a child's life at this early adolescence phase, so it is reasonable to conclude that peer relationships, both positive and negative, influence one's ethnic identity development. In fact, research has shown that adolescents report the lowest levels of ethnic identity when they are engaging with different-ethnicity peers (Kiang & Fuligni, 2009). It is possible that ethnic minority adolescents who fall into these classes have primarily European American peers and are on a slower developmental trajectory of ethnic identity development than those in the stable or increasing ethnic identity classes.

Ethnicity Differences

Our study's findings indicate significant differences among the six class trajectories in respect to ethnicity. That is, each ethnic group's representation differed across the trajectories. In particular, notable differences exist for–Pacific Islander early adolescents–they were represented only in the classes that are characterized by high initial levels of ethnic identity and that increased or stabilized at high levels over the 4-year period (e.g., HSEI, IEI). This finding is consistent with those from a recent study of Pacific Islander youth mental health (specifically, Samoan youth), which found that Samoan youth displayed high levels of ethnic identity affirmation, achievement, and belonging (Fiaui & Hishinuma, 2009). They also reported high levels of family support (Fiaui & Hishinuma, 2009), further emphasizing the important role of family support and socialization in ethnic identity development (Lamborn & Felbab, 2003). Because Pacific Islanders are an understudied population, future studies that contribute to the knowledge base of Pacific Islander youth development could be particularly beneficial.

The representation of multiethnic youth in the classes displayed noteworthy differences. In particular, multiethnic adolescents represented the majority of each class except for the IEI class. The body of literature about multiethnic youth is scant, although this population has begun to receive special research attention in recent years as the number of multiethnic children continues to climb (Choi et al., 2006; Crawford & Alaggia, 2008). These studies suggest that youth from multiple ethnic backgrounds may experience more difficulties in

their identity development because of various familial factors (Crawford & Alaggia, 2008). More specifically, mixed-ethnic youth may not receive the support they need to develop an achieved identity because their parents, who are monoethnic, may not have the necessary awareness or willingness to talk about issues related to their children's ethnic identities (Crawford & Alaggia, 2008). Moreover, rather than serve as a protective factor, a strong sense of ethnic identity among multiethnic adolescents has been found to increase the likelihood that they will engage in aggressive behaviors (Choi et al., 2006). These findings, which are generally contrary to those found for monoethnic adolescents, suggest the experiences influencing ethnic identity may differ for these youth, and they provide a possible explanation for the low representation of multiethnic adolescents in the IEI class.

African American adolescents were well represented in each of the six classes; however, their numbers were highest in the two classes with increasing ethnic identity trajectories (i.e., IEI, SIEI). This finding is not surprising in that research suggests many African American youth experience positive family support and high levels of racial socialization, which in the study of psychopathology is considered a resiliency factor (Fisher, Wallace, & Fenton, 2000). Similarly, Latino adolescents had the highest representation in the IEI class; yet, there were a significant number of Latino adolescents in the SDEI class. A decreasing trajectory after a high initial ethnic identity may indicate that Latino adolescents develop a sense of their ethnic group membership and identity earlier than do other adolescents. In fact, Pahl and Way (2006), who found decreasing levels of ethnic identity exploration for Latino adolescents, suggested these youth achieve ethnic identity resolution sooner than their African American peers. They proposed that this early resolution is a result of Latino youths' social context and experiences, which are often ethnically congruent with their own backgrounds (Pahl & Way, 2006).

Asian American and American Indian adolescents had the highest percentages in the LSEI class, suggesting little change in ethnic identity growth during the early adolescence developmental period. Little is known specifically about the developmental trajectories of ethnic identity for Asian American youth; however, researchers in a recent study found that Asian American adolescents slightly declined in their ethnic identity exploration over time (Kiang, Witkow, Baldelomar, & Fuligni, 2010). These low levels of ethnic identity suggest other contributing factors, such as acculturation, may be influencing the growth trajectories for Asian American youth and possibly hindering ethnic identity achievement at earlier stages in life. For American Indian youth, the high numbers of adolescents with low, stable ethnic identity levels is not surprising. These youth develop in a unique context as ethnic minorities in the United States, largely the result of generations of historical trauma and distress rooted in coerced cultural assimilation, such as government-administered residential schools (Gone, 2009; Hurst & Laird, 2006). This history has created significant and negative impacts on parenting practices, including the ability to provide racial and ethnic socialization and transmit cultural experiences (Gone, 2009). Thus, these adolescents may be experiencing additional challenges in ethnic identity exploration and growth. Given the relatively small amount of research available on American Indian youth, it is essential for future studies to examine this population to better understand the unique contributors involved in their development.

Differences in Parent–Child Relationships

In this study we also examined between-group differences in parent–child relationships for individuals in the six classes and the parenting they experienced. In particular, the extent of adolescents' positive relations with their families, perceptions of their parents, and amount of positive reinforcement received from parents was found to significantly differ. Youth with increasing ethnic identity over time (IEI) reported more positive family relations than did adolescents with moderate declines in ethnic identity (MDEI) and those with stable

levels of high ethnic identity (HSEI). Similarly, IEI adolescents reported better perceptions of their parents than did adolescents in the MDEI or HSEI class. IEI adolescents also reported receiving higher levels of positive reinforcement from their parents than did those in the HSEI class or those with extreme declines in ethnic identity growth. These findings are consistent with literature that suggests that parents play an influential role in their children's ethnic identity development (Inman et al., 2007; Lamborn & Felbab, 2003; Phinney & Chavira, 1992). A positive relationship with parents is likely to motivate adolescents to spend more time with them, engage in positive interactions with them, and be interested in their experiences, all of which are likely to contribute to an increase in ethnic identity. Especially during a period when adolescents are at higher risk of engaging with deviant peers (Dishion & Stormshak, 2007), a positive relationship with parents is an essential protective factor in youth development. In fact, studies have found that positive and supportive family relationships reduce risk of substance use and problem behaviors (Padilla-Walker, Nelson, Madsen, & Barry, 2008). Thus, these findings continue to underscore the importance of parenting and parent–child relationships in the development of a well-established ethnic identity, and they also suggest that high and increasing levels of ethnic identity are protective and may contribute to the prevention of problem behaviors and psychopathology in adolescence.

Conclusions and Limitations

The findings from this study contribute to a growing body of research on the developmental trajectories of ethnic identity development for ethnic minority adolescents, and provide additional longitudinal evidence for various trajectories of ethnic identity growth in early adolescence. As with adolescents in Phinney's (1989) model of ethnic identity and in other research (French et al., 2006; Matsunaga et al., 2010), the ethnic identity of a large number of adolescents in this study increased throughout this developmental period. However, a sizeable number remained stable in their high levels of ethnic identity over time, followed by smaller numbers of declining trajectories. These findings help clarify the understanding of ethnic identity during this developmental time. Moreover, our study of the multiple classes of growth and significant ethnic group differences justifies further examination of individual trajectories of ethnic identity. This study also provides further evidence that high levels of ethnic identity are associated with positive parent–child relationships and act as a protective factor for youth.

Because the study did not examine predictors contributing to the growth trajectories, we are unable to explain why adolescents may develop different trajectories of ethnic identity during early adolescence. Additional information is needed about the factors that cause these trajectory differences, and pinpointing these factors should be a main focus of future studies. It is possible that factors such as acculturation, neighborhood, or school diversity contribute to various ethnic identity trajectories.

It is also important to note that the ethnic minority adolescents in this study were residing in the Pacific Northwest, an area that may not reflect the same ethnic identity growth trajectories as those in other, more diverse areas of the United States (e.g., New York City, Los Angeles). Although studies about this area of research are emerging (French et al., 2006; Kiang et al., 2010; Matsunaga et al., 2010; Pahl & Way, 2006), more longitudinal studies are needed to further our understanding of patterns of ethnic identity.

Our study did not include European American adolescents in the analyses. This omission reflects the gap in the current body of literature about ethnic identity development, despite the fact that Phinney's (1989) ethnic identity model was designed to measure the ethnic identity of all ethnic groups. Furthermore, it is highly likely that European American youth display different ethnic identity trajectories during the early adolescence developmental

period. Information about these patterns can help inform existing models of ethnic identity and contribute to this area of research.

Finally, more longitudinal studies are needed to gain a clear picture of ethnic identity throughout the entire developmental periods of adolescence. In particular, studies with more time points (into late adolescence) are necessary to capture comprehensive trajectories of ethnic identity development. Our study, which focused on the early adolescence period transitioning into middle adolescence, provides only a snapshot of ethnic identity at the beginning stages of most adolescents' identity development.

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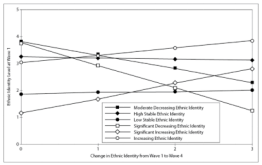

Figure 1.
Classes of ethnic identity growth trajectories for ethnic minority adolescents.

Table 1

Fit Indices for One to Seven Growth Mixture Models for Ethnic Identity

	Growth mixture model						
Fit indices	**1 Class**	**2 Class**	**3 Class**	**4 Class**	**5 Class**	**6 Class**	**7 Class**
AIC	8337.95	8128.98	8100.51	8082.04	8040.69	8021.67	8018.58
BIC	8385.20	8211.67	8218.64	8235.60	8229.70	8246.11	8278.45
SSABIC	8347.13	8145.04	8123.45	8111.87	8077.40	8065.26	8069.05
Entropy	—	.79	.77	.77	.82	.83	.84
VLMR LRT	—	.01	<.001	<.001	<.01	.05	<.05
p value							

Note. AIC = Akaike information criterion; BIC = Bayesian information criterion; SSABIC = sample-size adjusted Bayesian information criterion; VLMR LRT = Vuong-Lo-Mendell-Rubin likelihood ratio test.

Table 2

Descriptive Information for Adolescents in the Six Classes

	Class trajectory					
	Moderate decreasing ethnic identity (MDEI) (*n* = 38)	**High stable ethnic identity (HSEI) (*n* = 107)**	**Low stable ethnic identity (LSEI) (*n* = 14)**	**Significant decreasing ethnic identity (SDEI) (*n* = 28)**	**Significant increasing ethnic identity (SIEI) (*n* = 21)**	**Increasing ethnic identity (IEI) (*n* = 171)**
Mean age	12 years (*SD* = 5.13)	11.84 years (*SD* = 5.56)	11.96 years (*SD* = 5.57)	11.82 years (*SD* = 4.64)	12 years (*SD* = 7.27)	11.91 years (*SD* = 4.58)
Male	*n* = 17 (44.7%)	*n* = 52 (48.6%)	*n* = 6 (42.9%)	*n* = 16 (57.1%)	*n* = 13 (61.9%)	*n* = 84 (49.1%)
Female	*n* = 21 (55.3%)	*n* = 55 (51.4%)	*n* = 8 (57.1%)	*n* = 12 (42.9%)	*n* = 8 (38.1%)	*n* = 87 (50.9%)
African American	*n* = 6 (15.8%)	*n* = 17 (15.9%)	*n* = 2 (14.3%)	*n* = 6 (21.4%)	*n* = 7 (33.3%)	*n* = 52 (30.4%)
Hispanic-Latino	*n* = 6 (15.8%)	*n* = 23 (21.5%)	*n* = 2 (14.3%)	*n* = 10 (35.7%)	*n* = 4 (19%)	*n* = 62 (36.3%)
Asian American	*n* = 4 (10.5%)	*n* = 12 (11.2%)	*n* = 3 (21.4%)	—	—	*n* = 23 (13.5%)
Pacific Islander	—	*n* = 4 (3.7%)	—	—	—	*n* = 7 (4.1%)
American Indian	—	*n* = 8 (7.5%)	*n* = 4 (28.6%)	*n* = 1 (3.6%)		*n* = 1 (.6%)
Multiethnic	*n* = 21 (55.3%)	*n* = 43 (40.2%)	*n* = 3 (21.4%)	*n* = 11 (39.3%)	*n* = 10 (47.6%)	*n* = 26 (15.2%)
Unknown	*n* = 1 (2.6%)	—	—	—	—	—

Note. Percentages represent proportion within each class.

Cultur Divers Ethnic Minor Psychol. Author manuscript; available in PMC 2011 July 27.

Table 3

Means and Standard Deviations for Parenting Variables by Ethnic Identity Growth Trajectory Class

	Ethnic identity trajectory class											
	MDEI		**HSEI**		**LSEI**		**SDEI**		**SIEI**		**IEI**	
Parenting at Wave 4	***M***	***SD***	***M***	***SD***	***M***	***SD***	***M***	***SD***	***M***	***SD***	***M***	***SD***
Positive family relations	2.82_{a}	.96	3.00_{b}	.96	2.60	.60	2.90	1.23	2.96	1.08	3.46_{ab}	1.09
Family conflict	3.23	1.39	3.04	1.54	3.38	1.53	2.92	.92	2.53	1.00	2.86	1.35
Perceptions of parents	3.67_{c}	1.01	3.74_{d}	.85	3.93	.85	3.75	1.07	4.02	.81	4.21_{cd}	.92
Positive reinforcement	2.72	1.51	2.74_{e}	1.00	2.28	1.08	2.50_{f}	1.03	2.55	1.15	3.24_{ef}	1.19

Note. MDEI = moderate decreasing ethnic identity; HSEI = high stable ethnic identity; LSEI = low stable ethnic identity; SDEI = significant decreasing ethnic identity; SIEI = significant increasing ethnic identity; IEI = increasing ethnic identity;

$_{a–f}$ = significant mean differences ($p < .05$).