

Dimensions of Family Connectedness Among Adolescents with Mexican, Chinese, and European Backgrounds

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Multiple dimensions of adolescents' connectedness with their families were investigated among 489 9th-grade students ($M = 14.86$ years) from families with Mexican, Chinese, and European backgrounds. Participants reported on various aspects of their family relationships and completed diary checklists of daily behaviors for a 2-week period. Adolescents from European backgrounds reported levels of family identification and dyadic closeness with parents similar to or greater than those reported by their peers. For adolescents from Mexican and Chinese backgrounds, particularly those from immigrant families, family connectedness included a stronger emphasis on family obligation and assistance. The extent to which family demographic variables, including parental level of education and residence in a single-parent family, accounted for group differences was examined.

Keywords: family relations, racial and ethnic groups, immigration, daily activities, education

As a developmental period characterized by increased maturity and competence, adolescence triggers issues of independence and autonomy for children and their families. It is clear, however, that even with additional autonomy, adolescents need to maintain a degree of connectedness with their families that will provide them with the necessary support to confront the challenges of being a teenager in American society. Recent research suggests that the ways in which adolescents and their families maintain connectedness can vary across ethnic and immigrant groups that have different cultural traditions regarding individual autonomy and the importance of family. Even within ethnic groups, patterns of family relationships among adolescents may vary as a function of the length of time they themselves or their parents have resided in the United States. Yet researchers' current understanding of cultural and generational variability in family connectedness suffers from a limited portrait of adolescents from different ethnic and generational groups as being simply more or less connected to their families. In the current study, we attempted to provide a deeper understanding of ethnic and generational variability in family connectedness by examining different ways in which ado-

lescents may be tied to their families and by closely assessing the daily activities of a group of adolescents from Chinese immigrant families, Mexican immigrant and nonimmigrant families, and European nonimmigrant families.

Although American society traditionally has valued independence and autonomy, many of the increasingly large ethnic minority and immigrant populations in the United States come from cultural traditions that downplay individual autonomy and emphasize family interconnectedness and responsibility. For example, families with Mexican and other Latin American backgrounds hail from cultures that have a strong sense of familism that implies that family members should be close to one another and support one another (García-Coll & Vázquez García, 1995; Sabogal, Marin, Otero-Sabogal, VanOss Marin, & Perez-Stable, 1987). Families with Asian backgrounds, particularly those with Chinese roots, come from cultures that traditionally emphasize the importance of family membership, providing assistance to parents and siblings, and respecting the authority of the family (Chao & Tseng, 2002; Ho, 1996). The nature of these cultural values and traditions, and their divergence from the dominant norms of American society, has led several observers to suggest that children and adolescents from Asian and Latin American backgrounds will evidence family relationships that are distinctly different than their counterparts from European backgrounds (e.g., Cooper, 1999; Greenfield, Keller, Fuligni, & Maynard, 2003). Such may be the case particularly for adolescents in immigrant families, who now represent fully one fifth of the population of children in the United States and predominantly come from Latin America and Asia (Hernandez, 2004). The foreign-born parents of these children may retain traditional cultural values and norms more strongly than American-born parents.

Indeed, recent research has highlighted important differences in some aspects of family connectedness among American adolescents from Latin American, Asian, and European backgrounds. Consistent with their cultural traditions, adolescents from Latin American and Asian backgrounds—including those from Mexican

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and Chinese families—express a more intense sense of duty to support and provide assistance to the family both currently and in the future compared with their counterparts from European backgrounds (Fuligni, Tseng, & Lam, 1999; Phinney, Ong, & Madden, 2000; Sabogal et al., 1987; Tseng, 2004). This sense of family obligation among the Latin American and Asian adolescents also includes the broader concept that adolescents should consider the families' needs and wishes when making major decisions about their lives (Cooper, Baker, Polichar, & Welsh, 1993; Fuligni et al., 1999). These ethnic differences tend to be large in magnitude and generally persist throughout adolescence and into young adulthood (Fuligni & Pederson, 2002; Tseng, 2004). The ethnic variations in family obligation cannot be explained completely by differences in the families' socioeconomic resources, and they persist across different generations of immigrant and nonimmigrant families. Although adolescents from immigrant families do place more importance on supporting their families throughout their lives than their nonimmigrant counterparts, their coethnic peers from American-born families still value this tradition more than do adolescents from European backgrounds (Fuligni et al., 1999).

Yet studies also have suggested that adolescents from different ethnic backgrounds are quite similar to one another in other dimensions of family connectedness. For example, studies of adolescents' emotional closeness to mothers and fathers have revealed few ethnic or generational differences in these dyadic relationships across groups with Asian, Latin American, and European backgrounds (Fuligni, 1998). Children from Asian and Latin American backgrounds also report declines in dyadic closeness with mothers and fathers as they progress through the adolescent years that are similar to the declines observed among those with European backgrounds (Fuligni, 1998). In fact, some research has suggested that adolescents in families with European backgrounds even may report higher levels of closeness and communication with parents compared with those with Asian or Latin American backgrounds (Cooper et al., 1993).

Together, the findings regarding family obligation and dyadic closeness between adolescents and their parents suggest that rather than varying on a single dimension of family connectedness, ethnic and immigrant groups in the United States instead differ in the ways in which family connectedness is maintained during the adolescent years. If so, further research that examines multiple dimensions of family connectedness across a variety of cultural and generational groups is needed. Such research can test the potentially erroneous assumption that adolescents in some ethnic groups (e.g., those with European backgrounds) are less connected to their families than their peers as well as shed light on the more nuanced ways that family relationships may differ among adolescents from different ethnic and generational groups who appear similar to one another on some dimensions of family connectedness.

In the current study, we examined family connectedness among adolescents from Chinese immigrant families, Mexican immigrant and nonimmigrant families, and European nonimmigrant families in multiple ways. First, we simultaneously assessed differences in adolescents' sense of obligation to the family and in their reports of dyadic closeness to their mothers and fathers in order to determine whether the ethnic patterns reported above are evident within the same study among the same sample of adolescents and whether these patterns are similar across the two groups of Mexican ado-

lescents of similar ethnic background but different generational statuses within the United States. Second, we examined variations in the adolescents' identification with the family. This was done because Fuligni and Flook (2005) have suggested that the observed ethnic differences in family obligation may be due to the fact that family membership serves as an important social identity for adolescents from immigrant and ethnic minority families in the United States, which results in a greater sense of "we-ness" among family members that goes beyond individual dyadic relationships. Individuals who closely identify with their social groups are more likely to act voluntarily in support of the well-being of those groups (Hogg, 2003; Tyler, 1999), and this social identity mechanism may explain why adolescents from Asian and Latin American backgrounds feel a greater sense of obligation to assist their families. Yet it is also possible that because families are the primary social groups to which children belong, family membership serves as an important social identity for all adolescents regardless of their cultural background or the length of time their families have resided within the United States. Cultural and generational groups instead may differ in terms of the meaning of that identification, such as whether the family identity implies support and assistance, which could result in a pattern of ethnic and generational similarity in family identification coupled with ethnic and generational differences in family obligation (Fuligni & Flook, 2005).

A third way by which we explored family connectedness among the ethnically and generationally diverse group of adolescents was closely examining their daily activities and behaviors. Even though adolescents may endorse traditional values of family obligation, it is important to investigate the extent to which they actually engage in family assistance activities in order to understand the daily manifestation of this aspect of family connectedness. A study of adolescents with Chinese backgrounds did indicate that adolescents' sense of family obligation predicted variations in the number of helping behaviors in which they engaged on a daily basis (Fuligni, Yip, & Tseng, 2002). It is not yet known, however, whether adolescents from Chinese backgrounds engage in more frequent daily assistance than their counterparts from European backgrounds or how they compare with those from Mexican backgrounds because systematic time use studies of family assistance among adolescents from varying ethnic backgrounds have not yet been conducted. It also is unclear how time spent in family assistance activities compares with time spent in other typical adolescent activities in American society, such as studying for school and socializing with peers. A close assessment of these daily activities of adolescents would provide an additional window into potential ethnic and generational variations in the manner in which family connectedness is maintained during the teenage years.

In addition to examining ethnic differences in the average levels of adolescents' daily activities, we explored potential variations in the extent to which adolescents' sense of family obligation, closeness with parents, and family identification predicted their daily behaviors. For example, a stronger link between a sense of obligation and daily assistance among a certain cultural group could mean that there is greater internalization of that particular value of family connectedness within that group compared with other groups (Collins, Gleason, & Sesma, 1997; Grolnick, Deci, & Ryan, 1997). Variations in the links between adolescents' reports

of family connectedness and their daily behaviors also could imply differences in the meaning of family connectedness across the different groups. For example, a greater sense of family obligation was associated with studying more often among a sample of teenagers from Chinese backgrounds, in part because studying hard and doing well are traditionally considered to be part of children's obligations to their families (Fulgini et al., 2002). It remains to be seen whether such an association would be evident among adolescents from other ethnic backgrounds. Ethnic variations in the associations between adolescents' reports of dimensions of family relationships and their daily behaviors also could be a result of socioeconomic differences among the groups. It is possible that whereas families of both Mexican and Chinese backgrounds place a strong emphasis on the importance of supporting the family, there are differences in how adolescents conceptualize the best route for providing that familial support. Families with Mexican backgrounds tend to be in somewhat poorer economic positions compared with those from Chinese and other Asian groups (Hernandez, 2004), and the link between a sense of family obligation and actual assistance to the family might be stronger among these adolescents than among their Chinese peers for whom academics could take precedence.

Finally, we examined the extent to which adolescents balanced family activities with other activities in their daily lives as an additional view of the nature of family connectedness among the different groups. We assessed daily behavior using the daily diary method, an increasingly popular method of examining daily experience in which participants complete diary checklists every day for periods of several days to several weeks (Almeida, 2005; Bolger, Davis, & Rafaeli, 2003; Repetti & Wood, 1997). This technique enabled us to estimate the extent to which family, peer, and studying behaviors were associated with one another on a daily basis. That is, on days in which adolescents spent more time studying or socializing with peers, did they report less family assistance and leisure time? Such a negative association between activities on a daily basis would suggest that family assistance and leisure time are distinct from other activities in adolescents' lives. The daily diary method also enabled us to examine whether adolescents from different ethnic and immigrant groups vary in terms of the daily-level associations between family activities and other activities. The results of such analyses of daily behavior, therefore, provide additional information about the nuanced ways in which teenagers from different cultural and generational groups balance their connectedness with families with other demands of being an adolescent in American society.

Method

Sample

Ninth-grade students were recruited from three public high schools in the Los Angeles metropolitan area in 2003. The first school is populated predominately by Latino and Asian American students; over 50% of students received free and reduced-price meals, and over 10% were eligible for California Work Opportunity and Responsibility to Kids (CalWORKs), a welfare program in California that provides cash aid and services to eligible families. The second school includes students from mainly Latino and European American families; less than 20% of students qualified for free or reduced-price meals, and less than 5% qualified for CalWORKs. Finally, the third school enrolls mostly Asian American and European

American students whose families tend to be middle to upper-middle class; less than 10% of students were eligible for free or reduced-priced meals, and less than 1% qualified for CalWORKs (California Department of Education, 2006). None of the schools were dominated by a single ethnic group; rather, the two most common ethnic groups each comprised approximately 30%–55% of the total population of students in each school.

In two of the three high schools, the entire population of ninth-grade students was invited to participate. In the third high school, approximately half of the ninth graders were invited to participate because the large size of the school did not make it feasible to recruit all of the students. Across all three schools, 65% of those invited to participate actually took part in the study, resulting in a total sample of 783 ninth-grade students who came from families with a wide range of ethnic, socioeconomic, and immigrant backgrounds.

The analyses described in this article focus on the 489 participants ($M = 14.86$ years, $SD = 0.42$) from Mexican immigrant families ($n = 162$), Mexican nonimmigrant families ($n = 57$), Chinese immigrant families ($n = 146$), and European nonimmigrant families ($n = 124$) who were the target groups of the study. Adolescents from Mexican and Chinese immigrant families consisted of those adolescents who were born in Mexico, China, or Taiwan or whose parents were born in one of those countries. Sixty-seven percent of adolescents from Chinese immigrant families were born in the United States, and Chinese adolescents born outside this country immigrated, on average, when they were 8.1 years old. The majority of adolescents from Chinese immigrant families had mothers (78%) or fathers (77%) who immigrated to the United States after the age of 18. Only 1% of mothers and 2% of fathers came to the United States before turning 11. Of those adolescents classified as coming from Mexican immigrant families, 75% were born in this country; those adolescents born outside this country immigrated at the average age of 4.7 years. Mothers and fathers of Mexican adolescents in the immigrant family group varied in the age at which they immigrated to the United States; 44% of mothers came to the United States after turning 18 and 19% came before turning 11. Of fathers in this group, 35% immigrated after turning 18 and 9% immigrated before turning 11. Adolescents were considered to be from nonimmigrant families if both parents and the child were born in the United States; the adolescents' grandparents were either foreign born or American born.

The participants excluded from this article came from a mix of other Latino, Asian, and Middle Eastern backgrounds who did not constitute distinct ethnic and generational groups that were large enough for separate analyses. The sample was fairly evenly divided between boys (48%) and girls (52%).

Adolescents from the different ethnic and generational groups varied significantly in most aspects of their socioeconomic backgrounds including mother's education, $\chi^2(9, N = 480) = 159.6, p < .001$, father's education, $\chi^2(9, N = 451) = 142.2, p < .001$, mother's employment status, $\chi^2(3, N = 454) = 15.6, p < .001$, mother's professional status, $\chi^2(3, N = 299) = 35.2, p < .001$, and father's professional status, $\chi^2(3, N = 320) = 53.0, p < .001$. Adolescents also differed in family composition variables including whether two parents were living in residence, $\chi^2(3, N = 465) = 9.1, p < .05$, and whether any grandparents were living in residence, $\chi^2(3, N = 465) = 15.2, p < .01$. Differences between number of siblings with whom the adolescent lived were also significant, $F(3, 461) = 8.16, p < .001$. As shown in Table 1, Mexican adolescents from immigrant families tended to have parents who were less likely to have completed high school and were less likely to be working in a professional or semiprofessional occupation. Mothers of Mexican adolescents from immigrant families were least likely to be employed of any group. Adolescents from Mexican immigrant families also reported living with more siblings than those from nonimmigrant groups. Mexican adolescents from nonimmigrant families were more likely than those from Mexican immigrant families to have mothers and fathers who had completed some postsecondary education. Mothers of adolescents from Mexican nonimmigrant families were more

Table 1
Socioeconomic Background and Family Constellation According to Ethnic-Generational Group

Variable	Chinese immigrant	Mexican immigrant	Mexican nonimmigrant	European nonimmigrant
Mother's education (<i>N</i> = 480)				
Did not complete high school	28%	46%	7%	1%
Completed high school	27%	24%	22%	11%
Completed some college	10%	17%	44%	20%
Completed 4-year college	36%	13%	27%	68%
Father's education (<i>N</i> = 451)				
Did not complete high school	25%	47%	15%	3%
Completed high school	23%	26%	28%	8%
Completed some college	7%	10%	33%	16%
Completed 4-year college	45%	17%	24%	73%
Parental employment				
Mother employed (<i>N</i> = 454)	78%	65%	90%	79%
Father employed (<i>N</i> = 419)	85%	92%	81%	88%
Mother employed in semiprofessional or professional occupation (<i>N</i> = 299)	48%	29%	43%	74%
Father employed in semiprofessional or professional occupation (<i>N</i> = 320)	53%	28%	38%	79%
Family constellation				
Two parents in residence (<i>N</i> = 465)	76%	73%	56%	75%
Number of siblings in residence (<i>N</i> = 465)	1.1	1.5	1.2	0.8
Grandparent(s) in residence (<i>N</i> = 465)	24%	11%	13%	9%

Note. Semiprofessional occupation status included such occupations as nurse and office manager, and professional occupations included occupations such as architect and physician. *N*s for occupational status are lower because they include only those who were employed.

likely than any other group to be employed, whereas fathers were slightly less likely to be employed.

Adolescents from Chinese immigrant families reported coming from families in which mothers and fathers were likely to have achieved at least a high school degree. About half of mothers and fathers in immigrant Chinese families were employed in professional or semiprofessional occupations. Adolescents from Chinese immigrant families were more likely to report having parents who were married than the other groups and to be living with at least one grandparent. Adolescents from European nonimmigrant families had parents who had, for the most part, completed at least some postsecondary education and were employed in professional or semiprofessional occupations. European American adolescents from nonimmigrant families reported living with, on average, less than one sibling.

Procedure

Participants completed an in-class initial questionnaire that assessed different aspects of their family background and family relationships. After completing the questionnaire, participants were given a packet that included (a) a take-home questionnaire that assessed additional aspects of their family background and (b) 14 daily diary checklists that the adolescents were instructed to complete each night before going to bed over the next 2 weeks. Each checklist asked adolescents to report their engagement in various family, academic, and peer behaviors each day and took approximately 5–10 min to complete. Participants sealed each day's checklist in a manila envelope and stamped the seal with a handheld electronic time stamper (DYMO Corporation, Stamford, CT) provided by the researchers. The stamper imprinted the current date and time and was programmed such that the date and time could not be altered. At the end of the 2-week period, research assistants entered schools to collect completed checklists from participants.

Adolescents received \$30 for their participation and were told that they would receive two movie passes if inspection of the data indicated that they had completed the diaries correctly and on time (e.g., diaries completed on

consecutive days with correct date stamped on seal). The time stamper method of monitoring diary completion and the cash and movie pass incentives resulted in a high rate of compliance. Approximately 95% of the diaries were completed, and 86% could be identified as being completed on time, on either the same night or before noon the following day. Analyses examining only diaries completed on time revealed similar findings to analyses using all of the completed diaries. The results reported in this article, therefore, are based on analyses of all of the completed diaries.

Questionnaire Measures

Respect for family. Adolescents completed a measure assessing the extent to which they believed they needed to respect the authority of the family and make sacrifices for the family. Adolescents used a 5-point scale ranging from 1 (*not at all important*) to 5 (*very important*) to respond to seven items in order to indicate the importance of their doing things such as "Treat your parents with great respect," "Make sacrifices for your family," and "Do well for the sake of your family." The measure possessed good internal consistency among the different ethnic and generational groups (α s = .71–.84).

Obligation to provide current assistance. Adolescents completed a measure assessing the extent to which they felt obligated to assist and spend time with their families. The 12-item measure used a 5-point scale ranging from 1 (*almost never*) to 5 (*almost always*) and asked adolescents how often they should complete tasks such as "Help out around the house" and "Help brothers and sisters with homework" and engage in activities such as "Spend time with your family on the weekends" and "Spend time with grandparents, cousins, aunts, and uncles." The internal consistency of this measure was high for all ethnic and generational groups (α s = .83–.86).

Obligation to provide future support. Adolescents completed a six-item scale assessing how important it was to them to help to support their family in the future. Adolescents responded to a 5-point scale ranging from 1 (*not at all important*) to 5 (*very important*) indicating how important it

was to "Help your parents in the future," "Live or go to college near your parents," and "Help take care of your brothers and sisters in the future." Alpha coefficients for this measure ranged from .72 to .79 across the different groups of adolescents.

Family identity. Participants completed a three-item scale adapted from Tyler and DeGoey (1995) assessing the extent to which their family was an important aspect of their identity. Adolescents used a 5-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*) in order to indicate the extent to which they agreed with the following statements: "My family is important to the way I think of myself as a person," "I feel a sense that I personally belong in my family," and "I do not feel like an important part of my family" (reverse scored). Alpha coefficients ranged from .63 to .75 across the adolescents with different ethnic and generational backgrounds.

Closeness with mother and father. In order to measure the adolescents' perceptions of their closeness to their mothers and their fathers, we asked adolescents to complete a subset of the Family Adaptation and Cohesion Evaluation Scales II inventory separately for each parent (Olson, Sprenkle, & Russell, 1979). Questions were the same for mothers and fathers and were answered on a 5-point scale ranging from 1 (*almost never*) to 5 (*almost always*). The measure included 10 items such as "My mother [father] and I do things together," "My mother [father] and I are supportive of each other during difficult times," and "My mother [father] and I feel very close to each other." Internal consistency for all three groups on both scales was high, with alpha coefficients ranging from .85 to .88.

Family demographic information. To assess the family composition and socioeconomic background of participants, we asked adolescents to give details regarding persons with whom they lived as well as the education and occupational statuses of both of their parents. Participants completed a checklist section indicating individuals with whom they lived including parents, grandparents, siblings, and cousins. Participants were coded as living in a two-parent family if they indicated that they lived with two parents, regardless of whether they were biological or stepparents.

Participants also reported the education levels, employment status, and occupations of both of their parents. Participants indicated the highest level of education each of their parents received, ranging from elementary-junior high school through graduate school training. Occupations were coded according to a 5-point scale used in previous studies with a similar population (Fulgini, 1997, 1998) ranging from 1 (*unskilled level*) to 5 (*professional level*); examples of unskilled worker included such occupations as furniture mover, gas station attendant, food service worker, and housecleaner; semiskilled worker included baker, cashier, landscaper, and security guard; skilled worker included appraiser, barber, seamstress, and electrician; semiprofessional worker included nurse, librarian, optometrist, and office manager; and professional worker included architect, dentist, computer consultant, and physician. If the participant indicated a parent was unemployed, occupational status was not coded.

Diary Checklist Measures

Helping the family. Each day, adolescents reported whether they had assisted the family in a variety of ways, such as "Helped to clean your apartment or house," "Helped to cook a meal for your family," "Took care of your brothers or sisters," "Helped your brothers or sisters with their schoolwork," and "Ran an errand for your parents or family." After checking off the relevant helping behaviors, adolescents were asked to report the total amount of time that they spent helping their family each day. On average, adolescents reported helping their families clean the apartment or house on 6 days of the 14-day study, taking care of siblings and helping to cook a meal on 3 days, running an errand and helping a sibling with homework on 2 days, and helping families at work or with official business an average of less than 1 day. They reported engaging in some other unlisted assistance activity an average of 2 of the days over the course of the 2-week study.

Leisure with family. Adolescents indicated whether they had eaten a meal with their family, spent leisure time with their family, or spent time

with aunts, uncles, cousins, or grandparents each day. In addition, adolescents reported the total amount of time that they spent engaging in these activities.

Socializing with peers and studying. Adolescents indicated whether and how much time they spent socializing with peers and studying outside of school each day.

Results

Variations in Family Relationships and Daily Behaviors

In order to examine the extent to which adolescents from different ethnic and immigrant backgrounds differed in their family relationships and daily behaviors, we conducted a series of two-way analyses of variance, using ethnic-generational group and gender as main effects. As shown in Table 2, adolescents from Chinese and Mexican immigrant families reported a greater sense of family obligation than those from families with European backgrounds on the measures of respect for family, current assistance, and future support. Adolescents from Mexican nonimmigrant families only differed from those families with European backgrounds in terms of their attitude toward future support. In contrast to the group variations in family obligation, there were no differences in adolescents' general identification with the family and closeness with their mothers. Adolescents from families with European backgrounds actually reported higher levels of closeness with their fathers than did those from Chinese immigrant families and Mexican nonimmigrant families.

In terms of daily behaviors, adolescents from Mexican and Chinese families both spent significantly more time helping their families than did those from European backgrounds, and the students from Mexican immigrant families reported more time spent on family assistance than those from Chinese immigrant families (see Table 3). Adolescents from Mexican immigrant families also spent marginally more leisure time with their families than did those from Chinese immigrant families, who spent the least amount of time engaging in this activity. Students from Chinese immigrant families spent significantly more time studying than any other group, whereas those from families with European backgrounds spent the most time socializing with their friends outside of school. Adolescents from European nonimmigrant families did, however, spend significantly more time studying than those adolescents from Mexican immigrant families.

Only a few gender differences emerged in adolescents' relationships and daily behaviors. Girls reported feeling closer to their mothers ($M = 3.66$) than did boys ($M = 3.41$), $F(1, 475) = 11.53$, $p < .001$, and boys indicated greater closeness with their fathers ($M = 3.37$), than did girls ($M = 3.14$), $F(1, 445) = 9.34$, $p < .01$, $\eta^2_s = .02$. Girls also reported studying more often ($M = 1.07$) than did boys ($M = 0.93$), $F(1, 468) = 4.94$, $p < .05$, $\eta^2 = .01$. In no case did gender differences vary according to the adolescents' ethnic and generational background.

Parental Education and Family Composition

An index of adolescents' parental education was calculated by taking a mean of both parents' highest level of educational achievement. Adolescents from families with higher parental education backgrounds reported more closeness with their mothers and fathers ($r_s = .14$ and $.11$, $p_s < .01$ and $.05$, respectively), a

Table 2
Family Relationships According to Ethnic-Generational Group

Variable	Chinese immigrant (CI)		Mexican immigrant (MI)		Mexican nonimmigrant (MN)		European nonimmigrant (EN)		η^2	Bonferroni contrasts
	M	SD	M	SD	M	SD	M	SD		
Respect for family	3.95	0.58	3.94	0.76	3.74	0.73	3.65	0.75	.03	MI, CI > EN**
Current assistance	3.66	0.67	3.63	0.73	3.48	0.64	3.37	0.66	.03	MI, CI > EN**
Future support	3.65	0.70	3.58	0.87	3.30	0.85	2.91	0.73	.13	MI, CI > EN***; MN > EN*; CI > MN*
Family identity	4.16	0.70	4.11	0.92	3.97	1.01	4.00	0.98	.01	1.02 (3, 468)
Closeness to mother	3.45	0.75	3.55	0.77	3.52	0.83	3.64	0.78	.01	1.15 (3, 475)
Closeness to father	3.14	0.75	3.24	0.86	3.05	1.16	3.49	0.86	.03	4.37 (3, 445)**

Note. *Ns* = 453–485. For all measures, participants responded on a 5-point scale: respect for family and future support (1 = not at all important, 5 = very important), current assistance and closeness to mother and father (1 = almost never, 5 = almost always), and family identity (1 = strongly disagree, 5 = strongly agree).

* $p < .05$. ** $p < .01$. *** $p < .001$.

lower respect for family ($r = -.15, p < .001$), and a lower sense of obligation to support the family currently and in the future ($rs = -.16$ and $-.28$, respectively, $ps < .001$). Adolescents with higher parental education backgrounds also spent less time assisting the family ($r = -.32, p < .001$) and more time studying and socializing with friends ($rs = .22$ and $.27$, respectively, $ps < .001$).

A few aspects of family relationships and daily behavior were associated with demographic factors, including whether the participant resided with one or two parents, whether the participant resided with at least one grandparent, and the number of siblings with whom the participant resided. Adolescents who lived with two parents reported significantly higher levels of closeness to their fathers (one parent: $M = 3.02$; two parents: $M = 3.31$), $F(1, 433) = 8.37, p < .01, \eta^2 = .02$, and to their mothers (one parent: $M = 3.44$; two parents: $M = 3.60$), $F(1, 459) = 4.05, p < .05, \eta^2 = .01$, compared with adolescents living with only one parent. Adolescents who lived with two parents also spent more time studying ($M = 1.07$) than adolescents who lived with one parent ($M = 0.83$), $F(1, 462) = 8.68, p < .01, \eta^2 = .02$. Adolescents who did not live with a grandparent reported having closer relationships with both their mothers (no grandparent: $M = 3.59$; grandparent: $M = 3.34$), $F(1, 459) = 6.20, p < .05, \eta^2 = .01$, and their fathers (no grandparent: $M = 3.29$; grandparent: $M = 2.94$), $F(1, 433) = 8.73, p < .01, \eta^2 = .02$, compared with those adolescents who reported living with at least one grandparent. Having more siblings was associated with a greater sense of family obligation (family respect: $r = .14$; current support: $r = .14$, future support: $r = .13, ps < .01$), spending more time helping at home ($r = .19, p < .001$), and spending less time studying ($r = -.10, p < .05$).

In order to determine whether variations in parental education and family composition variables accounted for the previously reported differences between the adolescents from Chinese and Mexican families compared with their peers from European backgrounds, we completed a series of regressions in which the Chinese and Mexican groups were entered using a series of dummy codes, with adolescents from European nonimmigrant families as the reference group in Step 1 and then again in Step 2 along with parental education and the family composition variables. Only those aspects of family relationships and daily behaviors for which initial ethnic differences were observed in Tables 2 and 3 were included in these analyses.

As shown in Table 4, only three group differences in family relationships were reduced to nonsignificance after controlling for family demographic variables. Differences between adolescents from Mexican immigrant families and those from European nonimmigrant families in their sense of obligation to give the family respect and support the family currently as well as their reports of closeness to their fathers were reduced and were no longer significant. Examination of the coefficients for the family demographic variables suggests that the differences in family obligation were attributable to a greater number of siblings in the Mexican immigrant families, and the difference in father closeness was attributable to the greater likelihood of those from Mexican immigrant families to live with their grandparents. All other differences remained at least marginally significant even after controlling for family demographic differences between the groups.

Table 5 reports the results regarding daily behaviors, showing that the difference between adolescents from Chinese immigrant families and those from European nonimmigrant families in time

Table 3
Time Spent in Daily Behaviors According to Ethnic-Generational Group

Variable	Chinese immigrant (CI)		Mexican immigrant (MI)		Mexican nonimmigrant (MN)		European nonimmigrant (EN)		F(df)	η^2	Bonferroni contrasts
	M	SD	M	SD	M	SD	M	SD			
Helping family	0.93	0.95	1.29	1.01	1.05	0.89	.59	0.61	13.70 (3, 458)***	.08	MI > CI**; MI > EN***; CI, MN > EN*
Leisure with family	1.44	1.32	1.82	1.33	1.87	1.27	1.52	1.05	3.42 (3, 462)*	.02	MI > CI†
Studying	1.40	0.92	0.70	0.60	0.84	0.62	0.99	0.65	24.88 (3, 468)***	.14	CI > MI, MN, EN**; EN > MI**
Friends	0.83	1.11	0.79	0.91	0.87	0.78	1.33	1.19	6.77 (3, 468)***	.04	EN > MI, CI**; EN > MN*

Note. Ns = 466–476. Values for daily behaviors represent the average number of hours per day spent in that activity.
 † $p < .10$. * $p < .05$. ** $p \leq .01$. *** $p < .001$.

spent helping the family was reduced to nonsignificance, with the initial difference being attributable to the lower levels of parental education among the Chinese immigrant families. The difference between adolescents from Mexican immigrant families and adolescents from European nonimmigrant families in average amount of time spent studying each day was also reduced to nonsignificance, with the lower levels of parental education among Mexican immigrant families accounting for the initial difference between the groups. In addition, the difference between adolescents from Mexican immigrant families and those from European nonimmigrant families in time spent with friends was reduced to nonsignificance, with the initial difference being attributable to the high levels of parental education among those from European nonimmigrant families. Other group differences, although reduced somewhat, remained at least marginally significant after controlling for variations in parental education and family composition.

Finally, similar regression analyses were conducted to examine whether the differences among the three Chinese and Mexican groups reported in Tables 2 and 3 could be accounted for by family demographic variations, but results indicate that all previously reported significant differences remained at least marginally significant even after controlling for parental education and family composition.

Associations Between Family Relationships and Daily Behaviors

Bivariate correlations were computed in order to examine the associations between adolescents' family relationships and the average amount of time they spent engaging in daily behaviors (see Table 6). Adolescents with closer family relationships and a greater sense of family obligation generally spent more leisure time with their families and more time helping the family on a daily basis. Adolescents who indicated a stronger obligation to support their families both currently and in the future spent less time with friends on a daily basis. To a lesser extent, reported closeness with mothers also was associated with slightly less time spent with friends outside school. Studying was more modestly and less consistently related to the different dimensions of family relationships, but those who reported higher levels of closeness with their mother, family identity, and obligation to support their families currently spent more time studying each day.

In order to determine whether the associations differed across the ethnic and immigrant groups, we conducted a series of analyses of covariance in which ethnic-generational group was included as a main effect, the aspects of adolescents' family relationships were included as covariates, family demographic variables were included as controls, and the interactions between ethnic-generational group and the aspects of family relationships in predicting the daily behaviors were examined. Out of all of the associations reported in Table 6, only one varied significantly across groups. Closeness with mother was more tightly linked to studying among adolescents from Chinese immigrant families ($B = 0.41, p < .001$) compared with those from Mexican immigrant ($B = 0.15, p < .05$), Mexican nonimmigrant ($B = 0.19, p < .10$), and European nonimmigrant families ($B = 0.05, ns$).

Table 4
Ethnic-Generational Differences in Family Relationships Before and After Controlling for Parental Education and Family Composition

Variable	Respect for family						Current assistance						Future support						Closeness to father					
	Step 1		Step 2		Step 1		Step 2		Step 1		Step 2		Step 1		Step 2		Step 1		Step 2		Step 1		Step 2	
	B	SE B	β	B	SE B	β	B	SE B	β	B	SE B	β	B	SE B	β	B	SE B	β	B	SE B	β	B	SE B	β
Chinese immigrant	0.29	0.09	.19***	0.22	0.09	.15*	0.29	0.09	.19***	0.21	0.09	.14*	0.75	0.10	0.41***	0.63	0.11	.34***	-0.31	0.11	-.16**	-0.23	0.12	-.12†
Mexican immigrant	0.29	0.09	.19***	0.15	0.10	.10	0.29	0.09	.19***	0.16	0.10	.11	0.68	0.10	.38***	0.45	0.12	.25***	-0.22	0.11	-.12*	-0.15	0.13	-.08
Mexican nonimmigrant	0.07	0.12	.03	-0.01	0.12	-0.01	0.11	0.11	.05	0.04	0.12	.02	0.40	0.13	.15**	0.27	0.14	.10*	-0.43	0.15	-.15**	-0.35	0.16	-.13*
Parental education				-0.04	0.03	-.09†				-0.04	0.03	-.08				-0.09	0.03	-.16**				0.03	0.03	.05
Reside with two parents				-0.02	0.07	-.01				0.03	0.07	.02				-0.03	0.08	-.02				0.25	0.10	.12*
Siblings in residence				0.06	0.03	.10*				0.06	0.03	.10*				0.04	0.03	.06				-0.01	0.04	-.01
Reside with grandparent				-0.02	0.10	-.01				0.12	0.09	.06				-0.05	0.11	-.02				-0.28	0.12	-.11*

Note. Ns = 435-464.
† p < .10. * p < .05. ** p < .01. *** p < .001.

Daily-Level Associations Between Behaviors

Statistical model. Hierarchical linear modeling (HLM; Bryk & Raudenbush, 1992) analyses were performed in order to determine whether adolescents from the different ethnic and generational backgrounds differed in how they balanced their family time with the time that they spent studying and socializing with friends on a daily basis, and whether family demographic factors accounted for these relationships. Models were estimated in which time spent socializing with friends and time spent studying were used to predict (a) time spent helping the family and (b) leisure time with the family. The models consisted of equations at both the daily and the individual levels. The daily-level equations were as follows:

$$\text{Family Time (Helping or Leisure)}_{ij} = b_{0j} + b_{1j}(\text{Peer Time}) + b_{2j}(\text{Study Time}) + b_{3j}(\text{Weekday-Weekend}) + b_{4j}(\text{Week of Study}) + e_{ij} \quad (1)$$

Family time on a particular day (i) for an individual adolescent (j) was modeled as a function of the average time for the individual across the 14 days of the study (b_{0j}), time spent with peers (b_{1j}), and time spent studying (b_{2j}) on that day, and whether that day was a weekday or a weekend (b_{3j}) and the particular week of the study (Week 1-Week 2; b_{4j}). The latter two predictors are typical controls in daily diary analyses. The error term in the equation (e_{ij}) represents the variance that is not accounted for by other variables in the model. The time variables were all coded in terms of hours (0, 1, 2 . . .), weekday-weekend was coded as +1 and -1, and week of study was coded as +1 and -1.

The daily-level estimates were modeled according to gender and ethnic-generational background using the following individual-level equations:

$$b_{0j} = b_{00} + b_{01}(\text{Gender}_j) + b_{02}(\text{Chinese Immigrant}_j) + b_{03}(\text{Mexican Immigrant}_j) + b_{04}(\text{Mexican Nonimmigrant}_j) + u_{0j} \quad (2)$$

$$b_{1j} = b_{10} + b_{11}(\text{Gender}_j) + b_{12}(\text{Chinese Immigrant}_j) + b_{13}(\text{Mexican Immigrant}_j) + b_{14}(\text{Mexican Nonimmigrant}_j) + u_{1j} \quad (3)$$

$$b_{2j} = b_{20} + b_{21}(\text{Gender}_j) + b_{22}(\text{Chinese Immigrant}_j) + b_{23}(\text{Mexican Immigrant}_j) + b_{24}(\text{Mexican Nonimmigrant}_j) + u_{2j} \quad (4)$$

$$b_{3j} = b_{30} \quad (5)$$

$$b_{4j} = b_{40} \quad (6)$$

Average family time (b_{0j}), the daily association between peer time and family time (b_{1j}), and the daily association between study time and family time (b_{2j}) were all modeled as a function of average estimates across the sample (b₀₀, b₁₀, b₂₀), adolescents' gender (b₀₁, b₁₁, b₂₁), and adolescents' ethnic-generational background (b₀₂, b₀₃, b₀₄, b₁₂, b₁₃, b₁₄, b₂₂, b₂₃, b₂₄), which was dummy coded, with the adolescents from European nonimmigrant

Table 5
Ethnic-Generational Differences in Daily Behaviors Before and After Controlling for Parental Education and Family Composition

Variable	Time helping						Time studying						Time with friends					
	Step 1		Step 2		Step 1		Step 2		Step 1		Step 2		Step 1		Step 2			
	B	SE	β	SE	B	SE	β	SE	B	SE	β	SE	B	SE	β	SE		
Chinese immigrant	0.30	0.11	.15**	0.09	0.12	.05	.26***	0.60	0.10	.35***	0.10	.35***	-0.51	0.13	-.23***	0.14	-.15*	
Mexican immigrant	0.68	0.11	.34***	0.31	0.13	.15*	-.17**	-0.02	0.11	-.01	0.11	-.01	-0.55	0.13	-.24***	0.15	-.08	
Mexican nonimmigrant	0.44	0.15	.15**	0.25	0.15	.09†	-.05	0.05	0.12	.02	0.12	.02	-0.50	0.17	-.15**	0.17	-.10†	
Parental education				-0.15	0.03	-.23***		0.11	0.03	.21***						0.19	0.04	.26***
Reside with two parents				0.04	0.09	.02		0.19	0.08	.11**						-0.03	0.11	-.01
Siblings in residence				0.08	0.04	.10*		-0.03	0.03	-.04						0.05	0.04	.06
Reside with grandparent				-0.05	0.12	-.02		-0.18	0.10	-.08†						0.25	0.14	.08†

Note. Ns = 456-464.
† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

families serving as the reference group. Gender was coded as 0 for boys and 1 for girls. The error term in the equations (u_{0j} , u_{1j} , u_{2j}) represents the variance not accounted for by other variables in the model. The daily association of weekday-weekend (b_{3j}) and the particular week of the study (Week 1-Week 2; b_{4j}) with the outcome variable were both modeled as a function of the average estimates across the sample (b_{30} , b_{40}). In other words, Equations 5 and 6 indicate that the variables representing the week of the study and whether the particular day fell on a weekend were fixed and not predicted by gender or ethnic-generational group.

Results. The intercepts presented in the top of Table 7 indicate that adolescents from Mexican and Chinese backgrounds spent more time assisting the family than did those from European backgrounds. More important, for these HLM analyses, the other results in Table 7 show that adolescents generally spent less time helping their families on days in which they spent more time with their friends. This negative association was significantly stronger for adolescents from Mexican immigrant families, suggesting that the two activities were particularly independent of one another for those from Mexican immigrant families. All adolescents spent less leisure time with their families on days in which they spent time socializing with peers, and this association did not differ according to the adolescents' ethnic and generational background.

Adolescents spent more time helping their families on days in which they also spent more time studying. The amount of leisure time adolescents spent with their families was, for most adolescents, unaffected by their study time. Chinese adolescents, however, spent more leisure time with their families on days they spent more time studying. Adolescents generally spent more time assisting and being with their families on weekends than weekdays.

Additional HLM analyses were conducted in order to determine whether the results regarding ethnic and generational differences reported in Table 7 were dependent on variations in parental education and family composition. For these analyses, the indices of parental education, living with two parents, having siblings in residence, and having grandparents in residence were added to Equations 2, 3, and 4. Results indicate that adolescents whose parents had higher levels of education spent less time helping their families each day ($B = -0.17$, $p < .001$). Even after including family demographic variables, however, Mexican adolescents from immigrant and nonimmigrant families still spent significantly more time helping on a daily basis compared with Europeans from nonimmigrant families. None of the family demographic variables were associated with family leisure time.

In terms of the daily-level associations among activities, parental education was related to the extent to which spending time with peers had an impact on time spent helping the family each day. Higher levels of parental education predicted a weaker negative daily-level association between peer time and family assistance ($B = 0.01$, $p < .05$), and controlling for parental education reduced the difference between adolescents from Mexican immigrant families and those from European nonimmigrant families to nonsignificance. Parental education did not have an effect on the daily-level association between study time and leisure time with the family, and none of the other family demographic indexes had an impact on any of the daily-level associations between the different activities. The significant difference between adolescents from Chinese immigrant families and those from European nonimmigrant families in the daily-level association between study time

Table 6
Correlations Between Family Relationships and Daily Behaviors

Daily behavior	Closeness to mother	Closeness to father	Family identity	Respect for family	Future support	Current assistance
Helping family	.11*	.04	.18***	.24***	.30***	.28***
Leisure with family	.17***	.13**	.21***	.10*	.14**	.17***
Studying	.18***	.08	.12*	.09	.06	.17***
Friends	-.09*	-.06	-.05	-.13**	-.21***	-.19***

Note. *N*s = 436–477.
* *p* < .05. ** *p* < .01. *** *p* < .001.

and leisure time with family did change to marginal significance, but the coefficient itself (*B* = 0.10) did not change.

Discussion

The multiple measures of family relationships and daily behavior used in this study provide a rich portrait of the nature of family connectedness among adolescents from different ethnic and immigrant backgrounds. Compared with teenagers from European non-immigrant backgrounds, family connectedness included more of an emphasis on family obligation and assistance among teenagers from Mexican and Chinese backgrounds, particularly those from immigrant families. Adolescents from European backgrounds, however, reported levels of family identification and dyadic closeness with their parents that were either equal to or greater than those indicated by their peers. Analyses of adolescents' daily behaviors yielded important distinctions between those from Mexican and Chinese families and their counterparts of adolescents from European nonimmigrant families. Collectively, the findings suggest the roles of cultural background, immigrant status, and socioeconomic background in shaping the nature of family connectedness during adolescence in American society.

The higher level of family obligation reported by adolescents from Mexican and Chinese immigrant families has been observed in previous studies (e.g., Fuligni et al., 1999; Phinney et al., 2000), but the current study demonstrates that the greater sense of familial duty among these adolescents does not mean that they have a greater level of general identification with their family. Adolescents from European backgrounds were just as likely as their peers from Mexican and Chinese families to indicate that their families are important to their self-conceptions. Such ethnic similarity in family identification perhaps should not be surprising, given that families are the first and primary social groups to which children belong. Together, the findings regarding family obligation and identification suggest that although family membership does serve as an important social identity for all youth regardless of their ethnic and immigrant background, adolescents from Mexican and Chinese backgrounds possess an additional type of connection to their families that is characterized by a desire to support, assist, and respect the authority of the family. Part of this connection may be attributable to variations in factors such as parental education and family size. Yet the maintenance of group differences in some aspects of family obligation even after controlling for variations in

Table 7
Hierarchical Linear Modeling Results Predicting Daily Family Time by Daily Peer and Study Time

Daily level and individual level	Helping family		CI (95%)		Leisure time		CI (95%)	
	<i>B</i>	<i>SE</i>	Upper	Lower	<i>B</i>	<i>SE</i>	Upper	Lower
Intercept	0.62	0.08***	.46	.78	1.94	0.16***	1.62	2.26
Gender	0.16	0.09†	-.02	.34	0.20	0.15	-.10	.50
Chinese immigrant	0.31	0.11**	.09	.53	-0.26	0.18	-.62	.10
Mexican immigrant	0.75	0.12***	.51	.99	0.27	0.19	-.11	.65
Mexican nonimmigrant	0.50	0.15***	.20	.80	0.33	0.24	-.15	.81
Time spent with peers	-0.04	0.01***	-.06	-.02	-0.14	0.02***	-.18	-.10
Gender	0.00	0.01	-.02	.02	0.03	0.03	-.03	.09
Chinese immigrant	-0.01	0.01	-.03	.01	0.01	0.02	-.03	.05
Mexican immigrant	-0.05	0.01***	-.07	-.03	0.03	0.05	-.07	.13
Mexican nonimmigrant	-0.02	0.01	-.04	.0	-0.02	0.04	-.10	.06
Time spent studying	0.06	0.03*	.0	.12	-0.03	0.04	-.11	.05
Gender	-0.04	0.03	-.10	.02	-0.07	0.05	-.17	.03
Chinese immigrant	-0.01	0.03	-.07	.05	0.10	0.05*	.0	.20
Mexican immigrant	-0.03	0.04	-.11	.05	-0.02	0.07	-.16	.12
Mexican nonimmigrant	-0.06	0.04	-.14	.02	-0.01	0.08	-.17	.15
Weekday-weekend	-0.18	0.02***	-.22	-.14	-0.62	0.05***	-.72	-.52
Week of study	0.02	0.01	.0	.04	-0.03	0.03	-.09	.03

Note. *N*s = 449 individuals, 14 days per individual. CI = confidence interval.
† *p* < .10. * *p* < .05. ** *p* < .01. *** *p* < .001.

demographic factors suggests that other factors may be at work. In particular, the type of family connectedness implied by family obligation is consistent with both the adolescents' cultural backgrounds and their status as ethnic minorities in American society, the latter of which highlights a social distinctiveness and feeling of potential threat that tend to enhance the desire of group members to support and assist one another (Fuligni & Flook, 2005).

There were some variations between adolescents from Mexican immigrant and Mexican nonimmigrant families in terms of their family obligation attitudes and behavior. Although the two groups never differed significantly from one another in their reported attitudes or time spent in daily activities, the adolescents from Mexican nonimmigrant families generally fell between those from Mexican immigrant and those from European nonimmigrant families. These results suggest both retention and potential change in traditional Mexican values of family assistance and support across generations, though the relatively small sample size for the group of Mexican adolescents from nonimmigrant families makes it difficult to draw strong conclusions regarding how this group differs from adolescents from Mexican immigrant families. The sources of these patterns, however, are not clear from our study. It would be important to follow the same adolescents across generations in order to examine whether there will be real change in their attitudes and values with increased time spent in the United States and across development. Such a longitudinal approach is the best way to examine the impact of acculturation on children and adolescents, and it would be an important follow-up to the current study (Fuligni, 2001a).

Although adolescents from European backgrounds exhibited less emphasis on family obligation and assistance, they did report levels of closeness with their mother and amounts of leisure time with their families that were similar to those of their peers from Chinese immigrant and Mexican families. Adolescents from European backgrounds even reported higher levels of closeness with their fathers than did those from Chinese immigrant and Mexican nonimmigrant families. These findings, in combination with the similar levels of family identification across the different groups, suggest that family connectedness for adolescents from European backgrounds is focused on dyadic relationships and leisure activities with other family members. Adolescents from European backgrounds also spent significantly more time with peers than any other group, consistent with other descriptions of the strong peer emphasis among these adolescents in American society (Steinberg, 1996). It appears that the closeness between adolescents and their parents does not preclude extensive involvement in peer relationships, and the lower amounts of time adolescents spend on studying and assisting the family compared with their Chinese and Mexican peers, respectively, likely frees adolescents with European backgrounds to spend more time with peers on a daily basis.

Despite reporting a similar sense of obligation to the family, adolescents from Mexican and Chinese families engaged in different frequencies of daily activities that suggest that family obligation and connectedness take on somewhat behavioral meanings for these two groups. Teenagers in Mexican families spent a great deal of time directly providing help to the family on a daily basis. Among Mexican immigrant families, the adolescents' average of 1 hr 17 min each day was almost twice the amount of time that they spent studying outside of school. These results suggest that although a sense of family obligation among adolescents from

families with Mexican backgrounds is connected to greater academic motivation and more time spent studying (Fuligni, 2001b), it also behaviorally implies assisting and spending time with the family. These dimensions of family connectedness are consistent with some descriptions of traditional Mexican family practices (García-Coll & Vázquez García, 1995), and they may also reflect the greater economic need experienced by Mexican families in the United States (Hernandez, 2004). Although our measure of parental education could not fully explain the difference in family assistance between adolescents from Mexican immigrant and European nonimmigrant families, a stronger test of the role of socioeconomic resources would use direct measures of economic need such as those used by Conger and his associates (1992) in their studies of economic distress. Future studies also should include a consideration of the impact that the practice of remitting income back to family in Mexico may have on the economic stability of Mexican immigrant families (Fuligni & Yoshikawa, 2003).

Adolescents from Chinese families spent more time studying than assisting their families on a daily basis. The average of 1 hr 24 min for Chinese students was greater than the study time for adolescents from any other group, all of whom spent less than 1 hr, on average, studying each day. Chinese families place great importance on academic achievement (Chao & Tseng, 2002), and these results suggest that one of the primary behavioral obligations of children in Chinese families is to work hard in school. Of note, dyadic closeness to mothers more strongly predicted studying in school among adolescents from Chinese families compared with those from other groups. Chinese adolescents who are close to their mothers may feel more compelled to engage in activities that will lead to a higher likelihood of success in school in order to bring satisfaction to their parents. Indeed, adolescents in Chinese immigrant families perceive high academic aspirations on the part of their parents (Kao & Tienda, 1995), and the link between parent-child closeness and greater study time in this study may reflect an internalization of these aspirations on the part of the adolescents.

The ways in which adolescents balanced family time with studying and socializing with peers on a daily basis further support the different nature of family connectedness among the adolescents from these backgrounds. Although all adolescents spent less time helping the family on days in which they spent more time with peers, the effect was significantly more pronounced for those from Mexican immigrant families. This finding suggests that family assistance is a particularly distinct activity among adolescents from Mexican immigrant families, an activity that is in greater conflict with spending time with peers than for other groups. Including parental level of education in the model, however, reduced this difference to nonsignificance, suggesting that differences in the socioeconomic resources between adolescents from Mexican immigrant families and from European nonimmigrant families may create the conflict between these two activities, possibly because Mexican adolescents from immigrant families spent an overall greater amount of time helping their families.

Gender was implicated only modestly in the different dimensions of family connectedness, with girls reporting higher levels of closeness with mothers and boys reporting higher levels of closeness with fathers. In no case did the differences and similarities between boys and girls vary according to adolescents' ethnic and generational background, suggesting that gender operates in a

similar fashion across groups in terms of the dimensions of family connectedness that were examined in this study.

The adolescents in this study were in the ninth grade, and it would be important to examine changes in various dimensions of family connectedness as the youth progress through their high school years. It is possible that the group differences in family relationships will become exacerbated as the adolescents face increased demands from school and peers, potentially putting strains on some aspects of family relationships and making it more difficult to balance family activities with studying and socializing with friends.

The current study did not allow for an examination of the extent to which adolescents multitasked and combined activities in their schedules each day. It was, therefore, impossible to determine whether, for example, Chinese adolescents were able to combine their leisure time with their family with study time to a greater extent than other groups or whether they were perhaps just completing more tasks in the day. Future studies should perform a more detailed analysis of the adolescents' actual family assistance tasks in order to understand whether there may be group differences in what the adolescents are being asked to do that make it more or less difficult for them to combine family assistance with other activities.

Although the diary checklist method provided detailed analyses of the youth's daily lives, additional research also could incorporate more observational methods of both daily life and family interactions in order to explore even more nuanced ways in which family connectedness is expressed, negotiated, and maintained between adolescents and their families from different ethnic and immigrant backgrounds. Finally, a more complete portrait of the nature of family connectedness in these different groups would include the reports and activities of additional family members. The extent to which these different forms of connectedness produce group differences in other aspects of the adolescents' development should be a topic for future study.

In conclusion, rather than being more or less connected to their families compared with one another, adolescents from Mexican, Chinese, and European backgrounds appear to differ more in the way in which their family connectedness is expressed. Teenagers from Mexican and Chinese immigrant families generally feel a greater sense of obligation to the family, with those from Mexican immigrant families spending more time helping the family on a daily basis and those from Chinese families spending more time studying after school. Family identification is just as important to those from European backgrounds, but these youth focus less on family obligation and more on their dyadic relationships with their parents and spending time with peers.

References

- Almeida, D. M. (2005). Resilience and vulnerability to daily stressors assessed via diary methods. *Current Directions in Psychological Science, 14*, 64–68.
- Bolger, N., Davis, A., & Rafaeli, E. (2003). Diary methods: Capturing life as it is lived. *Annual Review of Psychology, 54*, 579–616.
- Bryk, A. S., & Raudenbush, S. W. (1992). *Hierarchical linear models: Applications and data analysis methods*. Thousand Oaks, CA: Sage.
- California Department of Education. (2006). *School summary data*. Retrieved January 27, 2006, from <http://dq.cde.ca.gov/dataquest/>
- Chao, R., & Tseng, V. (2002). Parenting of Asians. In M. H. Bornstein (Ed.), *Handbook of parenting: Vol. 4. Social conditions and applied parenting* (2nd ed., pp. 59–93). Mahwah, NJ: Erlbaum.
- Collins, W. A., Gleason, T., & Sesma, A. J. (1997). Internalization, autonomy, and relationships: Development during adolescence. In J. E. Grusec & L. Kuczynski (Eds.), *Parenting and children's internalization of values: A handbook of contemporary theory* (pp. 78–99). New York: Wiley.
- Conger, R. D., Conger, K. J., Elder, G. H., Jr., Lorenz, F. O., Simons, R. L., & Whitbeck, L. B. (1992). A family process model of economic hardship and adjustment of early adolescent boys. *Child Development, 63*, 526–541.
- Cooper, C. R. (1999). Multiple selves, multiple worlds: Cultural perspectives on individuality and connectedness in adolescent development. In A. S. Masten (Ed.), *The Minnesota Symposia on Child psychology: Vol. 29. Cultural processes in child development* (pp. 25–57). Mahwah, NJ: Erlbaum.
- Cooper, C. R., Baker, H., Polichar, D., & Welsh, M. (1993). Values and communication of Chinese, European, Filipino, Mexican, and Vietnamese American adolescents with their families and friends. In S. Shulman & W. A. Collins (Eds.), *The role of fathers in adolescent development: New Directions in Child Development* (pp. 73–89). San Francisco: Jossey-Bass.
- Fuligni, A. J. (1997). The academic achievement of adolescents from immigrant families: The roles of family background, attitudes, and behavior. *Child Development, 68*, 351–363.
- Fuligni, A. J. (1998). Parental authority, adolescent autonomy, and parent-adolescent relationships: A study of adolescents from Mexican, Chinese, Filipino, and European backgrounds. *Developmental Psychology, 34*, 782–792.
- Fuligni, A. J. (2001a). A comparative longitudinal approach to acculturation among children from immigrant families. *Harvard Educational Review, 71*, 566–578.
- Fuligni, A. J. (2001b). Family obligation and the academic motivation of adolescents from Asian, Latin American, and European backgrounds. In A. Fuligni (Ed.), *Family obligation and assistance during adolescence: Contextual variations and developmental implication* (pp. 61–75). San Francisco: Jossey-Bass.
- Fuligni, A. J., & Flook, L. (2005). A social identity approach to ethnic differences in family relationships during adolescence. In R. Kail (Ed.), *Advances in child development and behavior* (Vol. 33, pp. 125–152). New York: Academic Press.
- Fuligni, A. J., & Pedersen, S. (2002). Family obligation and the transition to young adulthood. *Developmental Psychology, 38*, 856–868.
- Fuligni, A. J., Tseng, V., & Lam, M. (1999). Attitudes toward family obligations among American adolescents from Asian, Latin American, and European backgrounds. *Child Development, 70*, 1030–1044.
- Fuligni, A. J., Yip, T., & Tseng, V. (2002). The impact of family obligation on the daily behavior and psychological well-being of Chinese American adolescents. *Child Development, 73*, 306–318.
- Fuligni, A. J., & Yoshikawa, H. (2003). Socioeconomic resources, parenting, and child development among immigrant families. In M. Bornstein & R. Bradley (Eds.), *Socioeconomic status, parenting, and child development* (pp. 107–124). Mahwah, NJ: Erlbaum.
- García-Coll, C., & Vázquez García, H. A. (1995). Hispanic children and their families: On a different track from the very beginning. In H. E. Fitzgerald, B. M. Lester, et al. (Eds.), *Children of poverty: Research, health, and policy issues* (pp. 57–83). New York: Garland.
- Greenfield, P. M., Keller, H., Fuligni, A. J., & Maynard, A. (2003). Cultural pathways through universal development. *Annual Review of Psychology, 54*, 461–490.
- Grolnick, W. S., Deci, E. L., & Ryan, R. M. (1997). Internalization within the family: The self-determination theory perspective. In J. E. Grusec & L. Kuczynski (Eds.), *Parenting and children's internalization of values: A handbook of contemporary theory* (pp. 135–161). New York: Wiley.

- Hernandez, D. J. (2004). Demographic change and the life circumstances of immigrant families. *The Future of Children: Immigrant Children and Families, 14*, 17–47.
- Ho, D. (1996). Filial piety and its psychological consequences. In M. H. Bond (Ed.), *The handbook of Chinese psychology* (pp. 155–165). Hong Kong: Oxford University Press.
- Hogg, M. A. (2003). Social identity. In M. R. Leary & J. P. Tangney (Eds.), *Handbook of self and identity* (pp. 462–479). New York: Guilford Press.
- Kao, G., & Tienda, M. (1995). Optimism and achievement: The educational performance of immigrant youth. *Social Science Quarterly, 76*, 1–19.
- Olson, D. H., Sprenkle, D. H., & Russell, C. S. (1979). Circumplex model of marital and family systems: I. Cohesion and adaptability dimensions, family types, and clinical applications. *Family Process, 18*, 3–28.
- Phinney, J. S., Ong, A., & Madden, T. (2000). Cultural values and intergenerational value discrepancies in immigrant and nonimmigrant families. *Child Development, 71*, 528–539.
- Repetti, R. L., & Wood, J. (1997). Effects of daily stress at work on mothers' interactions with preschoolers. *Journal of Family Psychology, 11*, 90–108.
- Sabogal, F., Marin, G., Otero-Sabogal, R., VanOss Marin, B., & Perez-Stable, E. J. (1987). Hispanic familism and acculturation: What changes and what doesn't? *Hispanic Journal of Behavioral Sciences, 9*, 397–412.
- Steinberg, L. (1996). *Beyond the classroom: Why school reform has failed and what parents need to do*. New York: Simon & Schuster.
- Tseng, V. (2004). Family interdependence and academic adjustment in college: Youth from immigrant and U.S.-born families. *Child Development, 75*, 966–983.
- Tyler, T. R. (1999). Why people cooperate with organizations: An identity-based perspective. *Research in Organizational Behavior, 21*, 201–246.
- Tyler, T. R., & DeGoey, P. (1995). Collective restraint in social dilemmas: Procedural justice and social identification effects on support for authorities. *Journal of Personality and Social Psychology, 69*, 482–497.

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Correction to Dittmar, Halliwell, and Ive (2006)

In the article “Does Barbie Make Girls Want to Be Thin? The Effect of Experimental Exposure to Images of Dolls on the Body Image of 5- to 8-Year-Old Girls” by Helga Dittmar, Emma Halliwell, and Suzanne Ive (*Developmental Psychology*, 2006, Vol. 42, No. 2, 283–292), a substantive error occurs in the *Body shape dissatisfaction* section on page 287. The sentence describing the calculation of body shape dissatisfaction scores from girls' responses to the Child Figure Rating Scale should instead read as follows: “A body shape dissatisfaction score was computed by subtracting the girl's actual from her ideal body size.”

We are grateful to Sherry Liu for bringing this error to our attention.