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## Perceived Family Relationships and Depressed Mood in Early and Late Adolescence: A Comparison of European and Asian Americans

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This study examined perceived parent–adolescent relationships and depressed mood among 173 early adolescents and 297 college students, all of European or Asian American background. Ethnic differences in depressed mood, not evident in the early adolescent sample, emerged in the college sample, with Asian Americans reporting more symptoms. Ethnic differences in depressed mood were reduced to nonsignificance when quality of parent–adolescent relationships was statistically controlled. The magnitude of associations between measures of parent–adolescent relationships and depressed mood was strikingly similar for European and Asian Americans at the same phase of adolescence. As anticipated, perceived parent–adolescent relationships accounted for more of the variance in depressed mood in early adolescence than in late adolescence: 44% to 51% for the junior high samples and about 10% for the college samples.

Depressed mood has been described as the key affective disturbance of normal adolescence (Weiner, 1980). Indeed, some evidence suggests that depressed mood is more common in this pivotal life period than in either childhood or adulthood (Radloff, 1991; Steinberg, 1993), and developmental research has contributed important insights into those factors associated with dysphoria during the adolescent years. Three important and sometimes intersecting lines of research have examined the effects of pubertal changes, other stressful life events, and family relationships on adolescents' experience of depressed mood.

Researchers have shown, for example, that certain hormonal changes are linked with increases in depressed mood (e.g., Susman, Dorn, & Chrousos, 1991). Early pubertal onset—an event of biological, psychological, and social significance—has been implicated in girls' depressed mood, and pubertal onset accompanied by other stressors, such as school changes, has been related to higher levels of depressive symptomatology in both sexes (e.g., Petersen, Sarigiani, & Kennedy, 1991). Independent of pubertal events, adolescents who experience a greater number of stressful life events report more depressed mood—a relationship that is moderated by individual differences in reactivity to stressors (e.g., Compas, 1987; Ge, Lorenz, Conger, Elder, & Simons, 1994). These and other researchers also have uncov-

ered links between depressed mood and variables such as parenting style and parental control (e.g., Chiu, Feldman, & Rosenthal, 1992; Kandel & Davies, 1982; Steinberg, Lamborn, Darling, Mounts, & Dornbusch, 1994) and between depressed mood and the affective quality of family relationships (e.g., Chiu et al., 1992; Ge et al., 1994). Perhaps the best-established link is that between parental warmth and supportiveness and adolescent mood, with rather consistent evidence that greater warmth is associated with less depressed mood or that parental warmth buffers adolescents against the mood-lowering effects of stressful life events (Ge et al., 1994; Kandel & Davies, 1982; Petersen et al., 1991). This interesting and complex literature, in which results often differ by sex of adolescent and sex of parent (i.e., father's or mother's warmth), includes studies based on both adolescents' self-report and studies based on behavioral observations. Moreover, the longitudinal design of some investigations permits the conclusion that preceding levels of parental warmth are implicated in adolescents' current level of depressive symptoms (Ge et al., 1994; Petersen et al., 1991).

In contrast to the considerable literature linking parental warmth to variations in depressed mood during adolescence, comparatively little attention has been directed to examining the link between adolescents' depressed mood and parent–adolescent conflict. Yet, just as dysphoria may be the most common affective disturbance of adolescence, bickering between parent and adolescent appears to be commonplace (Montemayor, 1986; Steinberg, 1989). Conflict with mothers appears to be more common than conflict with fathers, in part because of mothers' greater involvement in day-to-day dealings with adolescents. Although numerous studies indicate that the frequency of arguments increases from preadolescence to peak pubertal development, and some studies suggest that positive interactions with parents simultaneously decline during this period (Montemayor, 1986, 1989; Steinberg, 1989), little is known about the level of conflict between late adolescents (e.g., college students) and their parents or about the relations between conflict with parents and depressed mood. Montemayor

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(1986, 1989) and Steinberg (1989), among others, have argued that some degree of conflict may play a positive role in adolescent development, facilitating, as does parental warmth and supportiveness, the young person's or nonhuman primate's progress toward autonomy. Although not focusing on autonomy, a study by Allen, Hauser, Eickholt, Bell, and O'Connor (1994), based on a sample of normal European American youths and comparable youngsters hospitalized for nonpsychotic psychological problems, yielded findings that are broadly relevant. They showed that 16-year-olds who were rated by interviewers as more depressed came from families that had exhibited less (not more) overt hostility during a family interaction task conducted 2 years earlier.

### Ethnic Differences in Family Relationships and Adolescents' Psychological Distress

Much of the research described earlier has focused on samples consisting mainly of Whites, or as in the Kandel and Davies study (1982), has not pursued opportunities to examine the effects of family process variables in different ethnic or racial groups. With the increasing ethnic diversity of many regions in the United States, it is important for theory development as well as for practical purposes to understand similarities and differences in family processes that are consequential for depressed mood in adolescents across a variety of ethnic contexts. The remaining discussion focuses on depressed mood and its family correlates among Asian American adolescents.

As Uba (1994, p. 27) noted, "the empirically based picture of Asian American families is fragmented and incomplete," with studies typically not buttressed by replications (as is the case in many other research areas). Moreover, researchers often ignore generational status, which has implications for stressors such as language difficulties, value conflicts between generations, and the like, and disregard potential differences among Asian families of different national origin. According to Uba, common beliefs—some of which are supported by clinical and informal observations but have not been tested systematically—include the notions (a) that Asian American families are highly cohesive, in large part due to a cultural emphasis on harmony and mutual obligations but a low emphasis on overt expression of affection and approval and (b) that they tend to suppress manifest conflict, in part because of norms emphasizing obedience and respect for elders (Uba, 1994; see also Sue & Morishima, 1982).

Chiu et al. (1992) addressed some of these issues in a cross-cultural, cross-national study that compared European American, Chinese Americans, and Hong Kong Chinese high school students (in the U.S. study) and Anglo Australian, Chinese Australians, and Hong Kong high school students (in the Australian study). Using several measures of quality of family relationships, the researchers found that only parental warmth—a composite combining family level and dyadic measures—contributed uniquely to the explanation of adolescents' psychological distress and accounted for a similar proportion of the variance (8%–10%) in the U.S. and Australian studies. Chiu et al. found no significant generational differences in the associations between family relationship measures and adolescent distress. Levels of perceived parental warmth did not differ for first-generation

erations versus second-generation youths who were ethnically Chinese or for these youths versus their counterparts of European and Hong Kong origins.

Research on the incidence of depressive symptoms among Asian American youths, typically in comparison with European Americans, yields a complicated and ambiguous picture (see Uba, 1994). Differences in measures of psychological well-being and in whether researchers took into account the generational status of Asian Americans contribute to the mixed findings. In recent studies of high school students, some researchers have found no difference in symptom levels between Asian and European Americans (Chen & Stevenson, 1995; Fletcher & Steinberg, 1994). Although Chiu et al. (1992) found no difference between Chinese American high school students who were immigrants and their European American peers on a composite measure of emotional distress, they detected significantly more distress among Chinese American youths who had been born in the United States than among their European American or Hong Kong peers. In a study of college students, Abe and Zane (1990) found that immigrant Asian American college students were more psychologically distressed than their U.S.-born counterparts or European Americans.

Uba's (1994) tentative conclusion that, generational status aside, "the available research suggests that Asian Americans have a rate of psychopathology equal to or higher than that of European Americans" (p. 195) is of uncertain validity in relation to Asian American youths. It is clear that much remains to be known about ethnic differences in depressed mood and about the extent to which family relationships that are believed to be related to psychological distress in adolescents transcend ethnic boundaries. In particular, we know of few studies of depressed mood in Asian Americans that include early adolescents, which leaves open the question of when (if at all) Asian American youths begin to exceed various ethnic groups within the United States in experiencing depressed mood.

### The Present Study

The present study, which is exploratory in nature, focuses on the associations between perceived family relationships and depressive symptoms in two ethnic contexts, European American and Asian American, at two developmentally important points: early adolescence and late adolescence/early adulthood. Early adolescence is a time of high stress. The biosocial changes associated with puberty are still ongoing or proximal; a major school change was recently experienced (to middle or junior high school), and the transition to high school is on the horizon; concerns about belonging and conformity to peer pressure are at their peak; and relationships with parents are often undergoing transformation (Steinberg, 1993). Parental warmth and conflict with parents might each contribute to depressed mood (the former by reducing it, the latter by increasing it). Parental warmth, which appears to operate similarly to measures of social support, has been shown to have both direct and buffering effects in studies of stress and adolescent well-being. However, little is known about the relative importance of parental warmth at early versus late adolescence and its effects in varying ethnic contexts. Conflict with parents, construed as a stressor, would be expected to have a linear relationship with depressed

mood (i.e., more conflict, poorer mood). However, if conflict with parents is conceptualized as a normative factor in adolescence that facilitates autonomy, individuation, and separation from the family of origin, conflict with parents might show a curvilinear relationship with depressed mood; that is, moderate conflict might be associated with less depressed mood than either very low or very high conflict.

Of course, stressors are by no means insignificant during the college years. College students often experience increased academic pressure and compelling career and personal concerns. Nonetheless, several factors suggest that the quality of college students' relationships with parents, although still important, may be less consequential for depressed mood. Among them are college students' greater degree of autonomy and individuation compared with those of early adolescents; greater physical separation from parents (including, for a great many college students, separate residence); and potential support from a wide array of peers and nonfamily members. The following are the main questions we address in this exploratory study:

1. To what extent are the perceived family relationships of European and Asian American adolescents similar or different? Do European and Asian American youths differ in levels of depressed mood? These questions, which call for descriptive data, are prompted by the lack of systematic, comparative studies of family processes in the two groups and by ambiguities about the relative incidence of depressed mood among European and Asian American youths.

2. Are perceived parental warmth and understanding and adolescents' reports of conflict with parents associated with differences in depressed mood? Are these aspects of family relationships of similar importance to depression across ethnic groups and across early and late adolescence? We anticipate that the two aspects of family relations noted earlier (i.e., low warmth and high conflict) will be associated with higher levels of depressive symptoms in adolescents across both ethnic and age groups. As indicated, however, we expect that family relationships will prove more consequential for our early adolescent sample, and we will test for both linear and curvilinear associations between conflict with parents and depressed mood.

3. Do adolescents' perceptions of the overall family environment contribute to depressed mood independently of how they view their specific (i.e., dyadic) relationships with mother and father? This question is prompted by a family systems perspective, according to which interactions of other family members vis-à-vis each other may have implications for the individual. Perceptions of the overall family environment seem more likely to contribute independently to depressed mood among early adolescents and among Asian Americans. The former typically have more daily contact with family members than do late adolescents/early adults; Asian Americans, compared with European Americans, typically live in a cultural milieu that places more emphasis on the importance of the family as a single unit.

## Method

### Participants

Participants were 173 seventh and eighth graders ( $M$  age = 13.1 years) recruited from four schools in a southern California city and 297

Table 1  
*Sample Characteristics*

Variable	Junior high		College	
	EA	AA	EA	AA
Ethnicity ( $n$ )	84	89	168	129
Sex ( $n$ )				
Male	32	38	44	49
Female	51	51	124	80
Mean age (years)	13.2	13.1	20.4	19.4
Education (6-point scale)				
Father	5.1	5.4	4.8	4.1
Mother	4.9	4.9	4.4	3.6
Maternal employment status (%)				
Full time	44.0	48.9	59.4	66.7
Part time	26.2	29.5	18.7	10.2
Generational status (%)				
First generation	7.2	31.5	4.8	67.4
Second generation	4.8	65.2	7.1	29.5
Third generation or more	80.8	3.4	88.1	3.1
Age at immigration (years)	4.5	6.3	7.7	7.2

Note. EA = European Americans; AA = Asian Americans.

undergraduates ( $M$  age = 20.0 years) from 12 different social science classes at a state university located in the same city. The early adolescent sample included 84 European Americans, 59 Chinese Americans, and 30 Korean Americans. We included all youngsters of Chinese and Korean background who expressed interest in the study and for whom we obtained active consent to participate from parents. The European American sample was selected to match the Asian American sample on the basis of school, grade level, and gender. The college sample, which is part of a larger study, consisted of 168 European Americans, 75 Chinese Americans, and 54 Korean Americans who participated in the study for extra course credit.

Some key characteristics of the sample are summarized in Table 1. For reasons that are discussed in the *Plan of Analysis* section, data for the two Asian American groups were combined. Overall, parental educational attainment was quite high: Means indicate that all but one group, mothers of Asian American college students, have on average at least some college education (scale point of 4), with parents of the junior high school sample tending to have earned a 4-year college degree. Analyses of variance (ANOVAs) within age group, based on the average of fathers' and mothers' education for each study participant, revealed that Asian Americans in the college sample came from families with significantly lower educational attainment than did their European American counterparts,  $F(1, 294) = 23.90, p < .001$ . (Differences also were significant for both mothers' and fathers' education considered individually.) In contrast, the average scores for mothers' and fathers' education did not differ by ethnicity in the junior high school sample, although Asian American youngsters reported significantly higher educational attainment of fathers than did European Americans,  $F(1, 164) = 4.08, p < .05$ . Data on family structure (not tabled) indicated that approximately 74% of European Americans and 81% of Asian Americans in the early adolescent sample came from intact families. In the college sample, figures for the two groups were 70% and 80%, respectively. In both samples, over 70% of respondents' mothers were employed either full or part time, with minor differences between the two ethnic groups.

Table 1 also shows the generational status of study participants. Whereas the majority of Asian Americans in the junior high sample were second generation, the majority of their college counterparts were first-generation Americans. Despite the higher proportion of Asian than

European Americans who were not born in the United States, there were no significant between-groups differences in the age at which first-generation youths had immigrated to the United States. Among Chinese Americans, the great majority of immigrant youths were born in Taiwan, as were most parents. Only 8 participants were born in Hong Kong, 9 (all in the college sample) were ethnic Chinese born in Vietnam, and a handful were born elsewhere (e.g., Philippines, Singapore). All Korean American respondents who were not born in the United States appear to have been born, as were their parents, in South Korea. European Americans who were not born in the United States, or whose parents were born elsewhere, named approximately 18 different countries of origin.

As the figures in Table 1 suggest, the early and late adolescent samples differed in several respects. For example, twice as many late adolescent as early adolescent Asian Americans were not born in the United States, and the parents of early adolescents had more education than the parents of college students. The latter difference, which was especially marked among Asian Americans, probably reflects cohort differences in parents' educational opportunities.

### Measures

Participants received self-report questionnaires with instructions to complete them in privacy at home. They returned them in unmarked, sealed envelopes to a specified location on the school or college campus. Participants were aware that their names would be replaced with code numbers. Junior high school students received a token payment (\$5 or coupons to be spent at McDonald's); college students received a modest amount of extra course credit. Questionnaires covered numerous topics, including family demographics and measures of overall family environment, parental warmth and understanding, conflict with parents, and depression.

Parental education was indicated on a 6-point scale: eighth grade or less, some high school, high school graduate, some college, B.A. or B.S. degree, and master's degree or higher.

Generational status of respondents was determined on the basis of the respondent's and father's birthplace. (In only a small proportion of cases was father born in the United States and mother elsewhere, or vice versa.) If neither respondent nor father was born in the United States, the respondent was coded as first generation; if the respondent was born in the United States but the father was not, the former was coded as second generation; if both respondent and father were born in this country, the former was coded as third generation or more.

Family environment was assessed using the cohesion and conflict subscales of Moos and Moos's (1986) Family Environment Scale (FES). A sample cohesion item is "Family members really help and support one another"; a sample conflict item is "Family members rarely become openly angry" (reverse-scored). The nine items on each scale are in true-or-false format. Coefficient alpha was computed separately for the junior high school and college samples, and within each sample, separately for European and Asian Americans. Coefficient alpha for the two scales ranged from .68 to .87, with a mean of .75.

Two features of the parent-adolescent relationship (as opposed to the overall family environment) also were assessed: (a) Maternal/Paternal Warmth and Acceptance and (b) Conflict With Mother/Father. These scales were newly developed and pilot tested to ensure that their content and psychometric properties would allow for use in a future cross-national study. Maternal Warmth and Acceptance and Paternal Warmth and Acceptance are identical 13-item scales. Sample items are as follows: "My mother (father) likes me the way I am; she (he) doesn't try to 'make me over' into someone else" and "My father (mother) really understands me." Participants responded on a 6-point scale anchored by the phrases *strongly disagree* and *strongly agree*. Alpha coefficients, calculated for the four age-by-ethnicity subgroups, ranged from .86 to

.92 (mean  $\alpha = .90$ ). Because of the substantial correlation between the Maternal and Paternal Warmth and Acceptance scales (correlations averaged .58 for the four groups), we averaged the scores for the two scales to obtain a single Parental Warmth and Acceptance scale for use in regression analyses. In the case of respondents who had missing data for the mother or father scale (approximately 3% of early adolescents and 8% of the college sample), the mean score for the other (usually, mother) scale served also as the measure of average Parental Warmth. Alpha coefficients for the averaged Parental Warmth scale ranged from .92 to .94. This scale was substantially and positively correlated with the FES cohesion subscale across all age and culture groups ( $r_s = .54-.65$ ).

Conflict With Mother and Conflict With Father are identical eight-item scales (5-point response scale, from *never* to *all the time*). Topics include school-related issues, chores, friends, money, personal habits, and family relations, among others. Alphas for these scales ranged from .80 to .89 (mean  $\alpha = .85$ ). In light of the high correlation between the two measures (correlation averaged .70 for the four groups), we also created a single Conflict With Parents scale for use in regression analyses by averaging scores for the separate mother and father scales. The composite scale had alphas of .89 to .90. It was significantly and positively correlated with the family-level (FES) measure of conflict,  $r_s = .36-.42$ . As would be expected, measures of warmth and cohesion were significantly and negatively related to dyadic and family-level measures of conflict ( $r_s = -.48$  to  $-.60$ ).

Depression was assessed by means of a 16-item abbreviation (see Lin, 1989) of the Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1975) with five response options ranging from *never* to *almost every day* for each symptom experienced in the past month. Sample items include "I had crying spells" and "I could not get going." The abbreviated CES-D showed high internal consistency across groups, with alphas from .90 to .93.

### Plan of Analysis

In view of the relatively modest size of the two Asian American samples, especially Korean American junior high school students, we conducted preliminary analyses to determine whether Korean and Chinese Americans might be combined. ANOVAs on the family process variables and outcome measure (i.e., a total of seven tests for each age group) revealed only one significant difference: Chinese American college students described their fathers as less warm and accepting than did Korean Americans,  $F(1, 119) = 5.48, p < .05$ . We therefore decided to combine the two groups for all major analyses, thus focusing the core analyses of this article on similarities and differences between European and Asian Americans.

Question 1, concerning the quality of family relationships and the level of depressive symptoms experienced by European and Asian American youths, was addressed by means of two-way ANOVAs (ethnicity and sex as variables) conducted separately for the early and late adolescent samples. Although no Ethnicity  $\times$  Sex interactions were specifically hypothesized, this design permits the examination of possible ethnic differences in family relations and mood state of our male and female participants; sex differences per se were not a focus of the study. The decision to conduct analyses separately by sample was intended to underscore the fact that the two age groups were not drawn from the same population (see sample characteristics, described earlier).

To provide a more textured picture of family relations and psychological well-being, and to contribute to a currently sparse research literature on these features of the lives of Asian American adolescents, we conducted ANOVAs at the item level for those scales on which significant ethnic differences were found. Where both overall family environment measures and measures with related content pertaining to the parent-child dyad were significant (e.g., FES cohesion and Maternal/Paternal Warmth and Acceptance), we analyzed group differences in

mean item scores only on the dyadic measures, as the latter had stronger associations than the FES measures with adolescents' depressive symptoms. To compensate for the number of item-level tests conducted, we report only those items on which ethnic differences were significant at  $p < .001$ .

Questions 2 and 3, concerning the association between perceived family relationships and depressive symptoms among European and Asian American youths, were examined using correlational and regression analyses. In correlational analyses, we examined measures of overall family environment and four measures of the parent-child dyad: mother's warmth and acceptance, father's warmth and acceptance, and separate measures of conflict with each parent. In regression analyses, however, we used the composite measures, Parental Warmth and Acceptance and Conflict With Parents, in place of the separate, but quite highly correlated, mother and father scales to avoid problems of multicollinearity. Because Conflict With Parents, which assesses parent-child fighting, and the conflict subscale of the FES, which assesses strife in the broader family environment, were only moderately correlated, both were included in certain regression analyses. On the other hand, because our composite measure of perceived parental warmth and acceptance and the cohesion subscale of the FES were quite highly correlated for some groups (e.g., for Asian American junior high students,  $r = .65$ ), we included only the former in regression analyses. This decision was also based on the greater internal consistency of the Parental Warmth and Acceptance scale and on our wish to maintain comparability of level (parent-adolescent vs. overall family environment) with respect to measures of positive and negative family relationships.

Before proceeding to the results of our analyses, we call attention to the fact that all data in this exploratory investigation derive from information provided at one point in time by a single source, including information on "predictors" (e.g., measures of the parent-adolescent relationship) and "outcome" measure (i.e., depressive symptoms).

## Results

### *Ethnic Comparisons on Measures of Family Relationships and Depressed Mood*

*Early adolescents.* As a prelude to comparing the two ethnic groups, it may be useful to characterize the family relations and mood state of the early adolescent sample in more general terms. Overall, respondents tended to agree that their parents were warm and accepting and that they and their parents argued rarely; described the family environment as quite cohesive and nonconflictual; and reported having a depressive symptom only once or twice per month. Similarities between European and Asian American youths were far more striking than were the differences (see Table 2). ANOVAs revealed only one significant difference: Asian Americans reported less maternal warmth and acceptance,  $F(1, 160) = 15.81, p < .001$ . No significant interactions of ethnicity with sex were detected.

A closer look at those items on the maternal warmth and acceptance scale that distinguished between the two ethnic groups at  $p < .001$  (4 of the 13 items from the scale) revealed interesting details. Asian Americans were more likely than European Americans to endorse the item, "My mother is very critical of me" (a 1-point difference on a 5-point scale) and "I find it hard to please my mother." In addition to these differences, Asian American early adolescents were less likely to agree with the statements, "My mother lets me know through her words or actions that she loves me" and "My mother really understands me."

*Late adolescents.* In the college sample, a far different picture came to light. Although the overall description of family relationships was positive, and depressive symptoms were reported to be relatively infrequent, as in the early adolescent sample, European and Asian Americans differed significantly on every measure of perceived relationships and on frequency of depressive symptoms, with Asian Americans consistently presenting a less favorable picture of their family relationships and mood state (see Table 2). Specifically, young people of Asian American background described their mothers and fathers as less warm and accepting,  $F_s(1, 292) = 28.02$  and  $15.04$ , respectively, both  $p_s < .001$ , and reported more conflict with both their mothers and fathers,  $F_s(1, 292) = 33.64$  and  $23.21$ , both  $p_s < .001$ . In addition, Asian American college students described their overall family environment as less cohesive and more conflictual than did their European American counterparts,  $F_s(1, 292) = 16.74$  and  $12.22$ , both  $p_s < .001$ . Finally, Asian Americans reported more frequent symptoms of depression in the past month,  $F(1, 292) = 18.56, p < .001$ . No interactions of Ethnicity  $\times$  Sex were detected.<sup>1</sup>

Again, item-level analyses provide a more detailed picture. As with the younger sample, differences in mean item scores for Parental Warmth and Acceptance that were significant at  $p < .001$  reflected the themes of criticism/evaluation, expressiveness, and sensitivity. Compared with European Americans, Asian American college students more often reported that their mothers and fathers are "very critical" of them (as in the junior high sample, about 1 full scale point higher than the ratings of European Americans) and less often reported that their mother and father each "likes me the way I am [and] doesn't try to 'make me over' into someone else." Asian Americans agreed more with the statements, "I worry that my father will stop loving me if I do not live up to his expectations" and "I find it hard to please my father." They less often indicated that their parents expressed their love through words or actions or said "nice things" about them to their friends. Finally, Asian American college students described their mothers as less sensitive or responsive than did European American students, agreeing more that "My mother doesn't seem to notice when I'm unhappy" and disagreeing more that she enjoys spending time with them. For both the Maternal and Paternal Warmth and Acceptance scales, 7 of the 13 items differentiated between European and Asian Americans at  $p < .001$ .

Although the actual frequency of conflict was quite low (closer to *rarely*; scale point = 2, than to *sometimes*), Asian American college students consistently reported more conflict than did their European American peers. Substantial group differences ( $p < .001$ ) emerged on a majority of the eight items reflecting conflict with mother and with father, including the

<sup>1</sup> In light of the Chiu et al. (1992) finding that parental warmth did not differ by generation in their Chinese American and Chinese Australian high school samples, we ran ANOVAs on this variable as well as on our measure of parent-adolescent conflict for both of our age groups. Our findings replicated those of Chiu et al. for warmth and revealed no generational differences on conflict. Moreover, parental education (like generational status, a demographic variable on which our junior high and college samples differed) was unrelated to warmth and parent-adolescent conflict in all ethnic and age groups.

Table 2  
Means, Standard Deviations, and Results of Analyses of Variance Testing Ethnic Differences Within Two Age Groups

Measure	Response Scale	Junior high				F (1, 169-1, 172)	College				F (1, 278-2, 961)
		EA		AA			EA		AA		
		M	SD	M	SD		M	SD	M	SD	
Mother warmth	1-6	4.83	0.78	4.30	0.94	15.81***	5.08	0.72	4.53	0.88	28.02***
Father warmth	1-6	4.45	0.95	4.28	0.91	1.55	4.70	0.94	4.25	0.98	15.04***
Conflict with mother	1-5	2.00	0.75	2.03	0.75	0.04	1.87	0.61	2.38	0.74	33.64***
Conflict with father	1-5	1.80	0.75	1.70	0.70	0.80	1.72	0.61	2.12	0.68	23.21***
Family cohesion	0-1	0.72	0.66	0.73	0.47	0.03	0.78	0.55	0.65	0.65	16.74***
Family conflict	0-1	0.37	0.69	0.36	0.49	0.13	0.34	0.56	0.44	0.54	12.22***
Depression	1-5	2.15	0.81	2.15	0.73	0.00	2.12	0.75	2.47	0.73	18.56***

Note. EA = European Americans; AA = Asian Americans.

\*\*\* $p < .001$ .

frequency of arguments with both parents over the young person's habits and routines, choice of friends and the activities engaged in with friends, and privacy with respect to telephone calls and letters. Further inspection of our data suggests that conflict is somewhat more characteristic of, and intense in, relationships with mothers than with fathers, especially among Asian Americans.

A microanalysis of depressive symptoms revealed substantial ethnic differences ( $p < .001$ ) on 4 of the 16 items on the scale. Most striking, in both the magnitude of difference and globality of item content, was the greater frequency of Asian Americans' feeling that "My life has been a failure." On the average, Asian Americans reported feeling this way slightly more than once or twice in the past month, compared with a frequency midway between "never" and "once or twice" for European Americans. Asian Americans also indicated more disabling symptoms ("everything was an effort") and more difficulty in coping with distress ("could not shake off the blues" or "had trouble keeping my mind on things"). There were no significant Ethnicity  $\times$  Sex interactions.

### Family Relationships and Psychological Well-Being

**Correlational analysis.** Table 3 presents correlations between measures of perceived family relationships and depressed mood. A glance at this table reveals the expected direction of associations (i.e., inverse associations of the CES-D with measures of parental warmth and acceptance; positive associations with measures of conflict). These associations prevail at both early and late adolescence, when young people have less frequent, day-to-day involvement with parents and other family members. Of particular interest is the striking similarity between European and Asian Americans within each sample with respect to the magnitude of associations between measures of family process and adolescents' depressed mood. Although the association of Conflict With Father and depressed mood appears to be greater, generally, for European Americans than for Asian Americans, these differences, tested by Fisher's  $r$ -to- $z$  transformations, did not approach significance.

Equally striking is the difference in magnitude of association between family process variables and depressed mood across

the two age groups. Comparing the correlations for European Americans in the junior high sample with the correlations for European Americans in the older age group (see Table 3), one sees that the magnitude of association declines quite substantially, as predicted, in every case. Indeed, differences in all eight pairs of correlations were statistically significant (Fisher's  $r$ -to- $z$  transformation,  $p < .05$  to  $p < .001$ , one-tailed tests), indicating weaker links between depressed mood and family relationships in late adolescence than in early adolescence. The same pattern of lower correlations between family relationship measures and depressed mood in late versus early adolescence was also evident among Asian Americans. All but one difference between correlations was significant at  $p < .05$ , one-tailed: the correlation between maternal warmth and depressed mood.

Demographic indicators were modestly but not uniformly associated with differences in depressed mood, and only among Asian American early adolescents (see Table 3). There was a modest, inverse association between mother's educational attainment and early adolescents' depressed mood, and less recent immigration was associated with fewer symptoms. Finally,

Table 3  
Correlations of Family Measures With Depression

Family measure	Junior high		College	
	EA	AA	EA	AA
Maternal warmth	-.44***	-.55***	-.22**	-.39***
Paternal warmth	-.56**	-.45***	-.24***	-.22**
Composite parental warmth	-.56***	-.56***	-.28***	-.34***
Conflict/mother	.58***	.51***	.28***	.31***
Conflict/father	.64***	.60***	.27***	.11
Composite conflict/parents	.65***	.59***	.29***	.26***
Family cohesion	-.44**	-.51***	-.24***	-.25**
Family conflict	.46***	.39***	.21**	.25***
Father's education	.11	.03	.09	-.04
Mother's education	.08	-.19*	.03	-.07
Generation	.01	-.23*	-.02	-.06
Sex	.09	.21*	.06	.05

Note. EA = European Americans; AA = Asian Americans.  
\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

**Table 4**  
*Unstandardized and Standardized Betas in Regression of Depressed Mood on Demographic Indicators and Measures of Family Relationships*

Measure	Junior high				College			
	EA		AA		EA		AA	
	<i>b</i>	$\beta$	<i>b</i>	$\beta$	<i>b</i>	$\beta$	<i>b</i>	$\beta$
Generation	.03	.02	-.24	-.17*	-.05	-.03	-.01	-.01
Parental education	.08	.08	.03	.03	.05	.06	-.04	-.07
Sex	.21	.13	.15	.10	.16	.10	.07	.05
Parental Warmth and Acceptance	-.28	-.26*	-.35	-.39***	-.17	-.18*	-.23	-.26**
Conflict With Parents	.57	.49***	.45	.41***	.28	.22*	.19	.18†
	Adj $R^2 = .44***$		Adj $R^2 = .51***$		Adj $R^2 = .10***$		Adj $R^2 = .11***$	

Note. EA = European Americans; AA = Asian Americans.  
 † $p < .07$ . \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

there was a modest association of gender with depressive affect in the early adolescent sample, mirroring findings from numerous other studies in which girls report more depressive symptoms compared with boys (e.g., Ge et al., 1994; Kandel & Davies, 1982; Petersen et al., 1991; Radloff, 1991).

**Multivariate analyses.** We turn next to multivariate analyses of the association between perceived family relationships and depressed mood. In these regression analyses, we ask the questions, are the same variables important across ethnic groups? Does a measure of family-level conflict add anything to the prediction of adolescents' well-being, over and beyond the young person's own level of conflict with parents? Table 4 summarizes the answer to the first question.

With generational status, parental education, and sex (control variables) entered first, and measures of perceived parental warmth and acceptance and conflict with parents entered on the second step, only one demographic indicator made a unique contribution to adolescents' depressive symptomatology: At the junior high level, first-generation Asian Americans reported more symptoms than youths who were born in the United States. Taken together, demographic indicators accounted for trivial and nonsignificant amounts of explained variance in the depressive symptoms of adolescents in this study, ranging from 0% to 4%. In contrast, Parental Warmth and Acceptance contributed uniquely to the explanation of depressed mood at both early and late adolescence in both ethnic groups. Conflict With Parents, in turn, contributed uniquely to the explanation of depressive symptoms in three of four age-by-ethnic subgroups (the exception is a marginal [ $p = .06$ ] effect on Asian American college students' symptoms of depression). Examination of mean scores on the CES-D at three levels of conflict with parents, in both age groups, revealed a linear pattern, giving us no cause to test more formally an hypothesized curvilinear association between conflict and depressed mood. The unique effects of our measures of perceived parental warmth and conflict with parents on depressed mood in the instances described earlier are especially noteworthy because the two measures themselves are not independent (average correlation for various age-by-ethnicity samples = .50).

Looking at Table 4 more closely, we see that in our early adolescent sample, parental warmth and conflict with parents contributed substantially, and in the expected directions, to early adolescents' depression in both ethnic groups. The model as a whole accounted for 51% of the variance in Asian American youngsters' depression, all but 4% of it due to the two measures of family relationships. Among European Americans in the junior high school sample, family measures accounted for virtually all of the 44% of explained variance in depression. For the college sample, the two family relationships accounted for far less variance in depressed mood as would be expected from the zero-order correlations for the two age-groups (see Table 3)—10% and 11%, respectively, for European and Asian Americans. Demographic indicators, as a group, contributed virtually nothing to the explained variance.<sup>2</sup> Comparison of unstandardized beta weights suggests that the magnitude of association between parent-adolescent relationships and depressed mood was not substantially different across ethnic groups at the same age level.

Finally, to determine whether an overall measure of family environment would contribute to the explanation of depressive symptoms after controlling for the dyadic relationship between adolescents and their parents (see The Present Study section, research question 3), we reran the analyses shown in Table 4 with the addition of the FES conflict subscale—the only family-

<sup>2</sup> Because Korean Americans differed from Chinese Americans in the college sample on our measure of paternal warmth, we examined associations between the key study variables and CES-D scores separately within each group. The only detectable difference was the stronger negative association of perceived parental warmth with depressive symptoms among Korean than Chinese Americans. Although these groups did not differ on the core study variables at the junior high level, we nonetheless conducted similar analyses. The only difference of note concerns the modest correlation between sex and depressive symptoms seen in the data for Asian Americans (see Table 3). That association was found only among the Chinese American subsample ( $r = .27, p < .05$ ); sex was unrelated to depressive symptoms among Korean American junior high students ( $r = .08, ns$ ).



level variable not too highly correlated with other measures of family relations to cause problems of multicollinearity. In none of the regression models for our four age-by-ethnicity subgroups did this variable contribute independently to the explanation of adolescents' depressive affect. Moreover, the inclusion of overall family conflict did not appreciably alter the significance of previously noted effects of parent-adolescent conflict (or, for that matter, parental warmth and acceptance) on adolescents' mood. Thus, within the limits of this analysis, we concluded that measures of how adolescents view their own relationships with parents are more strongly related to adolescents' depressed affect than are measures of how adolescents view overall relationship quality in the family.

### *Accounting for Ethnic Differences in Depression*

Results of correlational and regression analyses indicated that family relationships play a significant role in late adolescents' psychological well-being. Would ethnic differences in depressive symptoms be obliterated if quality of parent-adolescent relationships were equalized? To answer this question, we conducted analyses of covariance on college students' depression scores with ethnicity as the grouping variable and Parental Warmth and Acceptance and Conflict With Parents as covariates. With both measures of parent-adolescent relationships statistically controlled, ethnic differences in depressive symptoms were reduced to nonsignificance,  $F(1, 260) = 2.13, p = .15$ . (Each of the two covariates, as would be expected, had a significant effect on the dependent measure.)

### Discussion

This study has explored the role of two theoretically important aspects of family relationships in early and late adolescents' experience of depressive symptoms. In addition, we have drawn a finer-grained picture of family life than is typical to enhance understanding of Asian Americans' family relations. Our major vehicle for accomplishing this goal is comparison with data for European Americans' family relations. The differences we point out should be seen within the context of generally positive family relationships across all samples (see Table 2).

Before discussing our findings, we should highlight several limitations of this study. First, and perhaps foremost, the data for our predictor and outcome measures were obtained from the same source: Adolescents and young adults reported their perceptions of family relationships and provided subjective reports of depressed mood. Second, because our data are not longitudinal, we cannot show that family relations actually lead to differences in adolescents' depressed mood or rule out the possibility that adolescents whose mood is more depressed view their parents as less warm and understanding and argue with them more often. Third, methods of recruitment into the study (e.g., active consent of both junior high school students and their parents) introduced considerable self-selection into the study. It is not clear, however, how selection bias might have influenced the ethnic similarities and differences found in this study: Several of our findings closely replicate those of Chiu et al. (1992), based in part on samples from another country (Australia) and another Chinese cultural setting (Hong Kong)

and on a different age group. Fourth, parents of our study participants, especially in the early adolescent sample, were quite highly educated, and study participants represented only two of many Asian American subgroups. Accordingly, the findings should not be generalized to samples that are very different in these respects. Finally, demographic and historical differences in the lives of the junior high and college samples require cautious interpretation of between-age-group comparisons. The fact that (a) statistical controls for generational status and parental education—measured variables on which our two age groups differ considerably—were incorporated in our regression analyses and (b) tests indicated no effects of generation or parental education on the family variables central to this study alleviates many (but not all) concerns about demographic differences between our junior high school and college samples.

### *Key Issues*

Asian American families often are portrayed as more "tightly knit" or cohesive than European American families. Our findings did not support this picture. In the junior high sample, there were no ethnic differences in cohesion; indeed, the only ethnic difference found pertained to perceptions of maternal warmth, on which Asian Americans scored lower. College-going Asian Americans reported a less cohesive and more conflictual overall family environment, more conflict between themselves and their parents, and less parental warmth and acceptance than did their European American peers. In both the junior high and college samples, but particularly striking in the latter, Asian Americans portrayed their mothers as understanding them less well, and as being less expressive of positive feelings toward them and more disposed to make approval conditional on meeting the mother's standards and fulfilling her expectations. A similar but somewhat less dramatic profile of differences emerged in Asian versus European American college students' descriptions of their fathers. Characterizations of their parents as less warm and expressive are consistent with, and may follow from, the cultural emphasis among Asians on control of emotions (Uba, 1994). Likewise, characterization of parents as critical and setting high standards could be interpreted as reflections of parents' concern to have children who conform to culturally sanctioned ways of behaving—children whose accomplishments will bring credit to the family and the community.

This familiar portrayal of Asian American families does not account, however, for why ethnic differences in parent-adolescent conflict differed by age group. As Table 2 indicates, means for fighting with parents take opposite trajectories for the two ethnic groups, rising for Asian Americans and declining for European Americans. Along similar lines, perceptions of parental warmth and understanding do not "improve" as much in the former group as in the latter. A possible explanation of the finding is that late adolescents' efforts at establishing autonomy are delayed in Asian American families, perhaps because of later expected age of independence in various domains (see Feldman & Rosenthal, 1991, regarding age expectations), and that these efforts are less supported in Asian American families because of cultural expectations for respect and obedience. At late adolescence, Asian Americans in our study are more involved in a

struggle for control than are European Americans, especially with their mothers. Conflict centers on who (parent or adolescent) will regulate the youth's personal routines and friendships and whether the adolescent may have a private sphere of activities (i.e., privacy with respect to phone calls and the content of letters). Insofar as conflict with parents and warmth and understanding both contribute to the explanation of depressive symptoms, these findings may afford some clue concerning ethnic differences in depressed mood in the college years. The fact that controlling for differences in these family relationship measures reduced ethnic differences in symptoms to nonsignificance strongly supports this contention.

The core question of this study concerned the association between family process variables and depressed mood at the beginning and end of adolescence, and the extent to which these associations were similar in type and magnitude across ethnic boundaries. Our findings indicate that the predictors of depressed mood are very similar across ethnic groups at the same age level (an important replication of the Chiu et al., 1992, findings) and that family relationships contribute less to the explanation of depressed mood in a college sample than in early adolescence. The latter finding is consistent with theory and evidence concerning the increased importance of extrafamilial relationships and activities in the lives of older adolescents and young adults. In fact, the greatly diminished amount of variance in depressed mood explained by perceived warmth and conflict in our early versus late adolescent samples (44% vs. 51% and 10% vs. 11%, for European and Asian Americans, respectively) is noteworthy. So, too, is the fact that the figures for the college sample correspond so closely to figures reported by Chiu et al. in their U.S. and Australian studies of high school students. Perhaps family relationships begin their decline as predictors of depression sometime after early adolescence and before the mid-college years. The timing of this apparent decline merits further investigation. Nonetheless, we underscore the fact that parental warmth and low conflict with parents appear to contribute to well-being throughout the entire early-to-late adolescent period.

Sex differences in depressed mood also merit comment. The minimal presence of sex differences in depressive symptoms in this study may seem surprising. An abundance of research points to higher rates of depressive symptoms among female adolescents from puberty onward (Ge et al., 1994; Kandel & Davies, 1982; Petersen et al., 1991; Radloff, 1991). Less well known, perhaps, is the fact that "the college population has represented a notable exception" to this pattern (Gladstone & Koenig, 1994, p. 643). It has been suggested that young people in a college environment may experience more equality in roles and status, and more channels of self-expression, than is typical in other environments (see Baron & Matsuyama, 1988, and Nolen-Hoeksema, 1990, cited in Gladstone & Koenig, 1994). The modest sex differences in depressed mood in our early adolescent sample, attributable almost entirely to the Chinese American subsample, suggest that early adolescents who are growing up today in supportive, low-conflict environments with well-educated parents may be less vulnerable to the conditions that seem to promote sex differences in depressed mood (see Petersen et al., 1991, for a brief review of the origins of such differences).

As we commented earlier, the literature is contradictory with respect to the relations between generational status and psychological distress. In our study, Asian American early adolescents in the first, or immigrant, generation (but not their college counterparts) reported more symptoms compared with those who were born in the United States, despite the fact that the early adolescent Asian American sample had families with more educational resources and thus may have experienced fewer social and economic stressors than their college student counterparts. As others have suggested (see Aldwin & Greenberger, 1987; Uba, 1994), the number of years since immigration and the related issues of adaptation and acculturation may be prepotent in understanding how generational status is related to mood-state in adolescence.

In summary, this exploratory study makes several contributions to the literature on family relationships and depressed mood. It is the first, we believe, to examine systematically variations in depressed mood among Asian American early adolescents. Subject to cautions about the nature of our sample and the study's cross-sectional design, it seems that differences in levels of depressive symptoms between Asian and European Americans may not arise until later in adolescence. We further suggest that the timing of increased depressive symptomatology among Asian Americans may be linked to a delayed struggle for autonomy. Finally, newly developed measures of the perceived parent-adolescent relationship (Parental Warmth and Acceptance and Conflict With Parents) that were used in this study proved highly reliable and were more strongly related to depressed mood than were measures of the overall family environment. In future studies, researchers might seek to pinpoint the timing and instigators of accelerated conflict over autonomy among Asian American youths, which in turn may help us to understand increases in depressed mood in this group and to explore the role of other family and extrafamilial factors in depressed mood. Studies that include more sizable numbers of third-generation youths would help researchers to separate cultural contributions to family dynamics and the incidence of depressive symptoms from contributions of stressors related to immigration.

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