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### Permalink

<https://escholarship.org/uc/item/11x078f8>

### Journal

Journal of Research on Adolescence, 7(1)

### ISSN

1050-8392

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### Publication Date

1997

### DOI

10.1207/s15327795jra0701\_3

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Peer reviewed

## Family, Peer, and Individual Correlates of Sexual Experience Among Caucasian and Asian American Late Adolescents

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This study explored ethnic and gender differences in sexual behavior and its correlates among 148 Caucasian American and 202 Asian American college students (mean age = 19.8 years). Among Asian Americans, differences in mean number of sexual partners were not associated with differences in generational status, ethnic subgroup, or level of acculturation as indicated by language usage at home. As expected, Caucasian Americans reported having had more sexual partners by late adolescence to young adulthood than did Asian Americans, and males reported having had more partners than females, especially among Caucasian Americans. Measures of peer interactions and attitudinal and dispositional characteristics showed consistent relations with number of sexual partners, but measures of perceived family relationships did not. In light of the age group under study, discriminant analyses were used to explore those attributes that distinguish between virgins and nonvirgins, as well as between individuals reporting only one or two partners and those reporting more. Results showed that two discriminant functions formed from five key variables (involvement in risky behaviors, endorsement of casual sex, perceived physical attractiveness, reported success in forming romantic relationships, and religiosity) were successful in predicting three levels of sexual experience for 61% to 92% of the individuals in the groups studied.

Sexuality is one of the most salient social and psychological issues for adolescents and young adults (Katchadourian, 1990), and much research has been conducted to investigate the various factors that influence adolescents' sexuality (e.g., Jessor, Costa, Jessor, & Donovan, 1983; Jessor & Jessor, 1975). There is consistent evidence, for example, of gender differences in sexuality, with males becoming sexually active earlier and tending to have more partners than do females (Hayes, 1987; Katchadourian, 1990). A number of studies, moreover, have linked early initiation of sexual activity in adolescents with poor-quality relations between their mothers and fathers, and between adolescents and their parents. For example, Newcomer and Udry (1987) found that parental characteristics such as marital disruption and lack of parental control were associated with adolescent sexual activity; and along the same lines, Inazu and Fox (1980) found that Caucasian and African American girls (ages 14–16) who reported high-quality relationships with their mothers were much less likely to have become sexually active. Whitbeck, Hoyt, Miller, and Kao's (1992) study of 13- to 18-year-olds suggested that adolescent daughters' level of depressed mood was a possible mechanism by which the quality of the mother–daughter relationship might influence the timing of first sexual intercourse; girls who had more supportive mothers were less depressed, and in turn were less likely to engage in first intercourse before age 18.

Adolescents' sexual activity has also been found to be related to peer factors such as association with sexually active peers (Benda & DiBlaso, 1994), peer sanctioning of sexual activity and deviance in general (e.g., Jessor & Jessor, 1975), and both peer rejection and acceptance during childhood, albeit through different paths (Feldman, Rosenthal, Brown, and Canning, 1995). A number of attitudinal or dispositional factors have been identified as correlates and, in some longitudinal studies, as predictors of subsequent sexual behavior. In particular, early onset of sexual activity has been associated with lower religiosity, accepting attitudes towards deviance, and actual involvement in deviant or problem behavior such as delinquency and substance use (Costa, Jessor, Donovan, & Fortenberry, 1995; Donovan & Jessor, 1985; Elliott & Morse, 1989). Of particular interest to the current study is Jessor et al.'s (1983) finding that individuals who remained virgins into young adulthood had been adolescents who, in an earlier assessment, reported themselves to be less physically attractive and less successful at forming romantic relationships.

Despite the accumulation of empirical data, our understanding of adolescents' sexual behavior has been limited in at least three respects. First, most research to date in this field has focused mainly on early initiation of sexual intercourse as a "problem" behavior. Second, and relatedly, little research has been directed at understanding differences in sexual activity

level among late adolescents and young adults. This omission is noteworthy because sexual behavior involves a developmental transition that is normatively age-graded: Whereas sexual activity is discouraged or its occurrence regarded as a problem behavior in early adolescence, it is sometimes accepted and regarded as normal behavior at a later age (Jessor & Jessor, 1975). Indeed, in late adolescence or early adulthood, sexual activity may constitute an important element in the development of intimacy (Erikson, 1963) and in the process of mate selection. Results of a national survey indicated that by age 18, 67% of males and 44% of females had experienced sexual intercourse; by age 20, these numbers rose to over 80% of males and 70% of females (Hayes, 1987). Other researchers have found that a majority of late adolescents and young adults (58% of 15- to 19-year-olds and 71% of 20- to 24-year-olds) report having had two or more partners (Zabin & Hayward, 1993).

Thus, in late adolescence and early adulthood, when sexual activity is more common, it is of interest not only to examine the distinction between sexually active and inactive youth, but also to identify characteristics of those individuals who report low versus high numbers of sexual partners. In one of the few studies of the correlates of late adolescents' sexual experience, Keller, Elliott, and Gunberg (1982) found that interpersonal psychological variables were more important predictors than sociological variables. In their study, traits reflecting power and dominance were among the variables most important for predicting males' levels of sexual experience; in contrast, traits associated with affiliation or affection-seeking were among the variables most predictive of young women's sexual experience.

A third limitation in our current understanding of adolescent sexuality concerns the role of culture and ethnicity. Although researchers have long taken an interest in ethnic differences in the sexual behavior of youth (Cochran, Mays, & Leung, 1991; Zelnik & Kantner, 1980), the ethnic scope of the existing studies has been limited. Most studies have focused on Whites, Blacks, and Hispanics and have rarely included Asian Americans. Despite a steady increase in the Asian American population in general and on college campuses in particular (Cochran et al., 1991; Huang & Uba, 1992; Sue, 1982), data regarding the sexuality of Asian American youth are still scant, and studies often yield conflicting findings. On the one hand, some researchers describe Asian American sexuality as marked by "conservatism," as revealed by Asian Americans' reluctance to disclose their views about sex (Erickson & Moore, 1986, cited in Chan, 1994) and their reported low level of engagement in sexual behavior (Cochran et al., 1991; Huang & Uba, 1992). For example, in Cochran et al.'s sample of 18- to 25-year-olds, 47% of Asian American respondents were sexually active; this rate was significantly lower than that of the Caucasian, African, or Hispanic Ameri-

can comparison groups, and was also lower than national estimates of sexual experience among Caucasian 19-year-olds (54% to 57%; Kahn, Smith, & Roberts, 1988). On the other hand, some researchers have found few or virtually no differences between the sexual behavior or attitudes of Asian Americans and those of other youth. For example, Sue (1982) found that Asian American and non-Asian American college students had similar prevalence rates of premarital sex (80% sexually active).

The current study had three objectives: (1) to explore ethnic and gender differences and similarities in sexual experience (rates of virginity and nonvirginity, number of partners) among Asian and Caucasian American late adolescents and young adults; (2) to explore selected correlates of sexual experience in late adolescence; and (3) to determine which variables distinguish virgins from nonvirgins and which distinguish individuals who report few sexual partners from those reporting many.

The correlates we chose to focus on fall within three domains: parental factors (i.e., parental education, perceived parental warmth and conflict with parents, autonomy from parents in decision making), peer factors (i.e., perceived competence in friendships and romantic relationships, and attractiveness to peers), and attitudinal or dispositional factors (i.e., religiosity, attitudes towards casual sex, and participation in risky or norm-violating behaviors). Although most of these factors have been identified as predictors of sexual initiation in early and middle adolescence, their utility in predicting virginity among late adolescents, and of particular interest, in predicting sexual experience with few versus more partners, is unknown.

## METHODS

### Participants

Participants were 148 Caucasian American and 202 Asian American students attending a state university in California. They were recruited from a variety of social science courses to participate in a study of cultural, family, and peer influences on late adolescent and early adult development. As part of a larger project, respondents were asked to complete a survey in privacy at home in exchange for extra course credit. Survey completion required 45–60 min. Respondents returned the survey within one week to an office associated with our laboratory where procedures for ensuring confidentiality were implemented. Specifically, the face-sheet containing the students' name (necessary for assigning course credit) was removed, code numbered, and placed in a locked file. The survey booklet was assigned the same code number as the face-sheet. Participants' ages ranged from 18

to 22, and all were unmarried and without children. In the Caucasian American subsample, 25% were male and 75% female. In the Asian American subsample, 34% were male and 66% female. This gender distribution was comparable to that in the academic departments from which participants were drawn, in which females comprised approximately 56% to 72% of students.

The Asian American group consisted of 34% Chinese Americans, 25% Korean Americans, 9% Japanese Americans, 10% Vietnamese Americans, 9% Filipino Americans, and 13% mixed or other Asian American groups. This distribution is roughly comparable, although not identical, to that of the university's overall student population, where Chinese Americans comprise approximately 28% of the Asian American undergraduate student population; Korean Americans, 20%; Japanese Americans, 8%; Filipinos, 8%; and other Asian groups (including Vietnamese Americans), 36%.

Of our Asian American sample, 60% were born outside the U.S., 29% were the first generation in their family born in the U.S., and 10% were second or later generation. Of the 121 immigrants to the U.S., ages at immigration ranged from 1 to 17 years, and the number of years they had been in the U.S. at the time of the survey ranged from 1 to 20 years ( $M$  years = 12.80,  $SD$  = 4.10); 80% of the immigrants had been in the U.S. at least 10 years. Forty-four percent of Asian American respondents indicated that they spoke English most of the time to their parents; one third indicated that they communicated with their parents mostly in their ethnic language; and the remainder indicated that they used English and their ethnic language equally.

Participants reported a high overall level of parental education. The percentage of mothers who had at least a college degree was 46% for Caucasian Americans and 45% for Asian Americans. The respective percentages for fathers were 66% and 63%.

## Procedure and Measures

Major measures used in the study included the following:

**Parental education.** Respondents were asked to indicate the highest level of education each of their parents had attained (1 = *junior high school/8th grade or less*; 2 = *some high school*; 3 = *finished high school or GED equivalent*; 4 = *some college*; 5 = *finished four-year college/B.A. or B.S.*; 6 = *master's or professional degree*). The responses for both parents were averaged, creating an index of parental education.

**Generational status and acculturation.** Respondents were asked whether they and their parents had been born in the U.S. and, if not, at what age they had come to the U.S., and the country in which they had been born. They also provided information on their parents' national origin. Finally, as an indicator of the family's degree of acculturation, respondents were asked to describe the language they used in the home when communicating with their parents (1 = *mostly English*; 2 = *half English and half ethnic language*; 3 = *mostly ethnic language*).

**Measures of parent-child relationships.** Three aspects of relationships with parents were assessed: degree of parental warmth and acceptance, frequency of conflicts with parents, and decision-making autonomy from parents.

Degree of parental warmth and acceptance was assessed with a 14-item scale concerning each parent (sample item: "My mother/father really understands me"; 1 = *strongly disagree*, 2 = *disagree*, 3 = *slightly disagree*, 4 = *slightly agree*, 5 = *agree*, 6 = *strongly agree*). The separate mother and father scales were averaged to form a scale for both parents, yielding a Cronbach alpha of .92 for Caucasian Americans and .93 for Asian Americans. Conflict with parents was measured with a 12-item scale (1 = *never*, 2 = *rarely*, 3 = *sometimes*, 4 = *often*, 5 = *all the time*) asking the frequency with which respondents had fought with their mother and with their father about a variety of issues (e.g., school work, dating, friends, etc). As above, this measure was averaged across parents, and yielded a Cronbach alpha of .92 for Caucasian Americans and .91 for Asian Americans. These scales, developed as part of a larger project, are more fully described in Greenberger and Chen (1996).

Autonomy from parents in making decisions was assessed with a 14-item scale, similar to that used by Steinberg and Silverberg (1986), that covered topics such as work, school, friends, and dating. Students responded on a 5-point scale (1 = *My parents decide this without discussing it with me*; 2 = *My parents make the final decision after discussing it with me*; 3 = *My parents and I make the decision together*; 4 = *I make the final decision after discussing it with my parents*; 5 = *I decide this without discussing it with my parents*). The autonomy score consisted of the number of items for which the respondent gave an answer of "5." This measure yielded a Cronbach alpha of .86 for Caucasian Americans and .81 for Asian Americans.

**Measures of peer relationships and self-perception.** Three aspects of relationships with peers were assessed: peer competence, success in forming romantic relationships, and physical attractiveness. Participants rated themselves on a 5-point scale in comparison to their peers, ranging from 1

(*much below average*) to 5 (*much above average*). Peer competence was a two-item scale, including students' self-rating of their ability to get along with others and make close friends. These two items were combined into a Peer Competence scale; Cronbach alphas were .77 for Caucasian Americans and .71 for Asian Americans. Success in forming romantic relationships and physical attractiveness were both single-item scales used in previous research by Jessor et al. (1983).

**Attitudinal and dispositional measures.** Three aspects of this domain were assessed: degree of religiosity, frequency of risky or norm-violating behavior, and endorsement of casual sex.

Degree of religiosity was assessed with a single item. Participants were asked to rate on a 3-point scale how religious they considered themselves to be, ranging from 1 (*not at all*) to 3 (*very much*). To assess the frequency of risky or norm-violating behavior, participants were asked to indicate the frequency with which they had engaged in 20 risky or deviant behaviors in the preceding year, such as having a conviction for driving under the influence, taking drugs, or speeding (1 = *never*, 2 = *once or twice*, 3 = *several times*, 4 = *often*). An item concerning a risky sexual behavior (had sex with a stranger) was removed from the original set of items to avoid inflating any associations between the risk-taking measure and number of sexual partners. The scale yielded a Cronbach alpha of .80 for Caucasian Americans and .82 for Asian Americans.

Endorsement of casual sex was assessed with the Attitudes Toward Casual Sex Scale (Snyder, Simpson, & Gangestad, 1986), an eight-item measure including statements such as "Sex without love is OK" (1 = *strongly disagree*, 2 = *somewhat disagree*, 3 = *neutral*, 4 = *somewhat agree*, 5 = *strongly agree*). This measure yielded a Cronbach alpha of .92 for Caucasian Americans and .91 for Asian Americans.

**Sexual experience.** Respondents were asked to indicate the number of sexual partners they had in the preceding year, and the total number they had had in their lifetime.

## RESULTS

### Ethnic and Gender Differences in Sexual Experience

Caucasian American males reported a higher number of sexual partners over their lifetime ( $M = 4.16$ ) than did Asian American males ( $M = 1.13$ ). Somewhat smaller differences emerged between Caucasian and Asian American females ( $M_s = 2.50$  versus  $0.92$ , respectively). In a 2 (ethnicity)  $\times$  2 (gender) ANOVA, the interaction term was significant,  $F(1, 345) = 4.61, p$



< .05, as were the main effects of ethnicity and gender,  $F(1, 345) = 45.64$ ,  $p < .001$ , and  $F(1, 345) = 5.76$ ,  $p < .05$ , respectively.

A substantial proportion of the total number of sexual partners that our respondents acknowledged were individuals with whom they had had or were having a sexual relationship *during the past year*. The mean numbers of partners during the past year were 1.65 for Caucasian American males, 0.66 for Asian American males, 1.04 for Caucasian American females, and 0.46 for Asian American females. The ethnicity-by-gender interaction was not significant,  $F(1, 345) = 2.03$ ; however, the main effects of both ethnicity and gender were significant,  $F(1, 345) = 31.74$ ,  $p < .001$ , and  $F(1, 345) = 7.36$ ,  $p < .01$ , with Caucasian Americans and males reporting more partners.

Similar ethnic and gender differences were found when analyses were confined to sexually active persons. Sexually experienced Caucasian American males reported an average of 5.50 sexual partners, Caucasian American females an average of 3.48, Asian American males 2.33, and Asian American females 2.24. The main effects of ethnicity and gender and their interaction term were all significant,  $F(1, 195) = 17.20$ ,  $p < .001$ ,  $F(1, 195) = 4.93$ ,  $p < .05$ , and  $F(1, 195) = 4.05$ ,  $p < .05$ , respectively. Specifically, the gender difference was significant within the Caucasian American group,  $F(1, 109) = 4.87$ ,  $p < .05$ , but not significant within the Asian American group,  $F(1, 87) = 0.15$ , ns.

The above analysis is limited, however, insofar as it treats number of sexual partners as an interval variable and hence assumes that the distinction between virgins (zero sexual partners) and those with one partner is equivalent to the distinction between those with two partners and those with three or more. We felt that there might be developmentally meaningful differences between having zero and one or two partners, and between having few and many partners. To further examine the distinction between virginity and nonvirginity, and that between few and many partners, a three-group categorical variable was created based on the total number of sexual partners reported for the lifetime (group 1 = 0 partners; group 2 = 1 to 2 partners; group 3 = 3 or more partners).

As shown in Figure 1, ethnic and gender differences were also obvious when the data were examined categorically, in terms of level of sexual experience (0, 1-2 partners, 3 or more partners),  $\chi^2(6, N = 350) = 47.21$ ,  $p < .001$ . For each ethnicity-by-gender subgroup, a one-way ANOVA was conducted to determine whether the individuals in the three sexual experience groups differed in age (a likely correlate of sexual experience between ages 18 and 22). Age was related to level of sexual experience only among Asian American females,  $F(2, 131) = 4.18$ ,  $p < .05$ : Virgins were the youngest of the three sexual-experience groups.

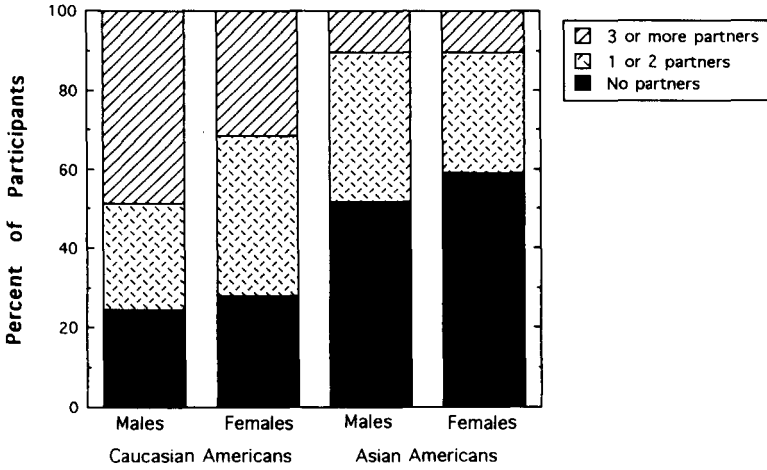


FIGURE 1 Percentage of subjects reporting 0, 1 or 2, or 3 or more sexual partners over their lifetime.

### Differences Within the Asian-American Subsample

Within the Asian American sample, we further explored differences in level of sexual experience as a function of generational status, nation of origin, family acculturation (as indicated by language use within the home), and, in the case of immigrant Asian Americans, number of years in the U.S. Because of the relatively small numbers of participants from certain national groups in our sample (e.g., Japanese Americans, Filipino Americans), we formed three groups for purposes of analyzing ethnic differences among Asian Americans' level of sexual experience: Chinese Americans ( $n = 67$ ), Korean Americans ( $n = 51$ ), and other Asian Americans ( $n = 84$ ). Chi-squared analyses were conducted separately for males and females because of differences in their levels of sexual experience. These analyses focused on virgins and nonvirgins, rather than the three "level of experience" groups noted earlier, because of the small numbers of individuals who had had more than two partners in certain of these subgroups. Analyses of the Asian American subsample revealed no difference in virginity versus nonvirginity as a function of generational status, years of residence in the U.S., or nation of origin. For females, but not males, individuals from the least acculturated families were more likely to be virgins (77% than were individuals from moderately or highly acculturated families (52% and 53% respectively),  $\chi^2(2, N = 131) = 6.99, p < .05$ . Thus, although several different groups were included in the Asian American sample, overall they appeared

to be similar enough in their sexual experience to warrant treating them as a single group for the remaining analyses.

### **Family, Peer, and Individual Correlates of Sexual Experience**

Before we examine the associations between late adolescents' level of sexual experience and their family, peer, and individual characteristics, we summarized ethnic and gender differences in these characteristics based on a series of two-way ANOVAs. As can be seen in Table 1, Caucasian American students reported that their parents had significantly more education than did the Asian American students, described their parents as warmer and more understanding, reported less conflict with parents, and reported having more autonomy from their parents in decision making. Additionally, males reported less fighting with parents than did females.

With respect to the peer and self attributes studied, Caucasian American students perceived themselves to be significantly more physically attractive and more successful in romantic relationships than did Asian American students. There were no ethnic differences in perceptions of general competence with peers.

In terms of attitudinal and dispositional variables, Caucasian American students reported a significantly greater frequency of risky or norm-violating behaviors than did Asian Americans; and males reported a greater frequency of these behaviors than did females. There were no ethnic differences in religiosity or endorsement of casual sex. Females were more religious than males and less likely than males to endorse casual sex.

### **Association of Family, Peer, and Attitudinal Measures with Sexual Experience**

Because we anticipated that the associations between number of sexual partners and potential correlates might be nonlinear, one-way ANOVAs were performed within each ethnicity-by-gender subgroup to examine whether sexual experience groups differed from one another in the family, peer, and attitudinal and dispositional variables enumerated earlier. For the most part, the means on the four family measures (parental education, autonomy in decision making, parental warmth, and conflict with parents) did not differ across the three sexual experience groups. However, there were interesting exceptions. For Caucasian American females, autonomy from parents in decision making and conflict with parents both were

TABLE 1  
Means and Standard Deviations for Potential Correlates  
of Sexual Experience

	<i>Caucasian Americans</i>				<i>Asian Americans</i>				<i>F Values</i>		
	<i>Males<sup>a</sup></i>		<i>Females<sup>b</sup></i>		<i>Males<sup>c</sup></i>		<i>Females<sup>d</sup></i>		<i>Ethnicity</i>	<i>Gender</i>	<i>Interaction</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Parental education	4.76	.99	4.79	.96	4.20	1.34	4.19	1.32	17.99***	.30	.03
Autonomy in decision making	7.91	3.59	7.42	3.68	6.66	4.05	6.14	3.58	9.98**	1.37	.01
Parental warmth	4.91	.62	4.95	.70	4.37	.68	4.52	.85	27.92***	1.22	.25
Conflict with parents	1.87	.53	1.66	.52	2.15	.68	2.01	.49	28.55***	6.09*	.26
Peer competence	3.75	.82	3.63	.89	3.80	.75	3.74	.67	.73	1.60	.33
Physical attractiveness	3.44	.65	3.49	.66	3.38	.65	3.12	.65	15.92***	2.54	3.65
Romantic success	3.47	1.23	3.37	.94	2.97	1.18	3.15	1.06	9.91***	.79	2.03
Risky or norm-violating behavior	1.48	.37	1.31	.23	1.40	.36	1.25	.19	4.92*	26.33***	.02
Religiosity	1.81	.66	1.84	.68	1.78	.62	2.05	.70	.88	7.22**	.81
Endorsing casual sex	2.50	1.23	1.73	.85	2.57	1.06	1.47	.67	2.97	86.48***	2.16

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

<sup>a</sup> $n = 31-37$ . <sup>b</sup> $n = 100-110$ . <sup>c</sup> $n = 58-67$ . <sup>d</sup> $n = 114-132$ .

associated with level of sexual experience,  $F_s(2, 108 \text{ and } 101) = 5.30 \text{ and } 6.35$ ,  $ps < .01$ , respectively. Inspection of group means suggests that greater autonomy was reported by Caucasian American females who had either 1 to 2 partners or 3 or more ( $M_s = 8.38 \text{ and } 7.69$ , respectively) than by those who were virgins ( $M = 5.73$ ). In addition, a greater frequency of conflict with parents was reported both by Caucasian American females who reported no partners ( $M = 1.80$ ) and by those who had 3 or more ( $M = 1.81$ ) than by those who had 1 to 2 partners ( $M = 1.45$ ). For Caucasian American males only, parental education was significantly associated with sexual experience,  $F(2, 31) = 4.64$ ,  $p < .05$ : Parents of the virgins tended to have a lower level of education ( $M = 4.06$ ) than did parents whose late adolescent sons had 1 to 2 partners ( $M = 5.15$ ) and parents whose sons had 3 or more partners ( $M = 4.89$ ).

In contrast to family factors, several consistent associations were found between peer factors and sexual experience. Table 2 shows the variables that were significantly associated with sexual behavior for at least two of the four subgroups. For all four subgroups, perceived success in forming romantic relationships was associated with sexual experience. Perceived physical attractiveness was also significantly associated with sexual experience group for both Caucasian American males and females. Competence in peer relationships, assessed in more general terms (i.e., not just "romantic relationships"), was not associated with sexual experience in any subgroup.

The three measures of students' attitudinal and dispositional factors also were related to adolescents' sexual behavior. With the exception of Asian American males, virgins were more religious, less likely to endorse casual sex, and less likely to engage in risky or norm-violating behavior than were nonvirgins.

### Discriminant Analysis

A discriminant function analysis was performed for each ethnicity-by-gender subgroup to (a) ascertain which set of the correlates we examined would distinguish virgins from nonvirgins, and individuals with few from those with many partners, and (b) determine how well the set of variables predicted sexual experience group (see also Keller et al., 1982). Only those variables that were associated with sexual experience groups in at least two of the four ethnicity-by-gender subgroups were included in the discriminant analyses. These variables were: (a) self-perceptions of physical attractiveness, (b) perceptions of success in forming romantic relationships, (c) religiosity, (d) endorsement of casual sex, and (e) frequency of risky or norm-violating behavior.

TABLE 2  
Means and Standard Deviations of Predictor Variables by Level of Sexual Experience

	<i>No Partners</i>		<i>One or Two Partners</i>		<i>Three or More Partners</i>		<i>F values</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
<i>Physical attractiveness</i>							
Caucasian American males	3.11	.78	3.10	.53	3.82	.53	7.45**
Caucasian American females	3.19	.60	3.56	.59	3.66	.73	4.80**
Asian American males	3.31	.72	3.46	.58	3.43	.53	.40
Asian American females	3.01	.52	3.29	.78	3.21	.80	2.75
<i>Romantic success</i>							
Caucasian American males	2.33	.87	3.90	1.20	3.82	1.07	6.89**
Caucasian American females	2.77	.76	3.67	.85	3.51	.98	10.31***
Asian American males	2.43	1.04	3.58	1.10	3.43	.98	9.54***
Asian American females	2.81	.99	3.63	1.02	3.64	.84	11.35***
<i>Religiosity</i>							
Caucasian American males	2.22	.83	1.50	.53	1.78	.55	3.24*
Caucasian American females	2.40	.62	1.84	.64	1.66	.59	12.47***
Asian American males	1.94	.59	1.58	.58	1.71	.76	2.79
Asian American females	2.22	.70	1.85	.61	1.64	.63	6.88**
<i>Risky or norm-violating behavior</i>							
Caucasian American males	1.36	.24	1.31	.20	1.63	.43	3.71*
Caucasian American females	1.21	.24	1.28	.16	1.44	.25	9.92***
Asian American males	1.31	.30	1.49	.42	1.53	.37	2.23
Asian American females	1.20	.19	1.27	.16	1.44	.18	11.44***
<i>Attitude toward casual sex</i>							
Caucasian American males	1.50	.54	1.60	.65	3.50	.89	30.22***
Caucasian American females	1.23	.45	1.53	.62	2.50	.93	30.12***
Asian American males	2.34	.96	2.71	1.05	3.16	1.33	2.23
Asian American females	1.30	.49	1.48	.60	2.37	.96	19.43***

*Note.* The number of cases for each level of sexual experience is shown in Figure 1. The number varies slightly in this table as a result of occasional missing data on the predictor variables.

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

Discriminant function analyses yielded two significant functions, with somewhat similar results for three of the four subgroups (Caucasian American males and females and Asian American females). Two variables had significant coefficients on the first function for these three subgroups: risky or norm-violating behavior, and attitude toward casual sex. In addition, this function included religiosity for both groups of females, and perceived physical attractiveness for Caucasian Americans (see Table 3). As Figure 2 shows, the first function maximally discriminated among all three sexual experience groups for both Asian American and Caucasian American females. For Caucasian American males, this function distinguished those who reported three or more partners from the other two groups.

The second function was comprised of perceptions of success at forming romantic relationships for all three subgroups; in addition, it included religiosity for Caucasian American males, and perceived physical attractiveness for Asian American females. This function discriminated maximally between those who reported one or two partners and the other two groups (i.e., virgins and those who reported three or more partners; see Figure 2). In other words, this function (mostly the variable "perceived success in romantic relationships") had a curvilinear relation with sexual experience: "Moderate" sexual experience was associated with a high level of perceived romantic success (note the negative sign of this variable's coefficients in Table 3).

For Asian American males, the set of five variables also formed two discriminant functions, but the second function (consisting of attitude toward casual sex) was not significant; see Table 3. The first function, comprised of the other four variables, maximally distinguished between those individuals with no sexual partners and those with few or many partners. No variable (or function) could meaningfully separate those with few from those with many partners, although the nonsignificant function tended to discriminate these two groups in the expected direction (i.e., the more positive their attitude toward casual sex, the more sexual partners).

Finally, Table 4 shows the correct classification estimates provided by the discriminant analysis to indicate the model's success at predicting sexual experience group membership for each ethnic group. Correct classification estimates indicated that the variables tested were successful in predicting sexual experience group membership for more than 90% of Caucasian American males, and more than 60% of the other three groups. These classifications are substantially higher than the 33% correct classifications that would result by chance. The only group for which the model failed to predict appreciably above chance level was the subgroup of Asian American males who reported one or two partners.

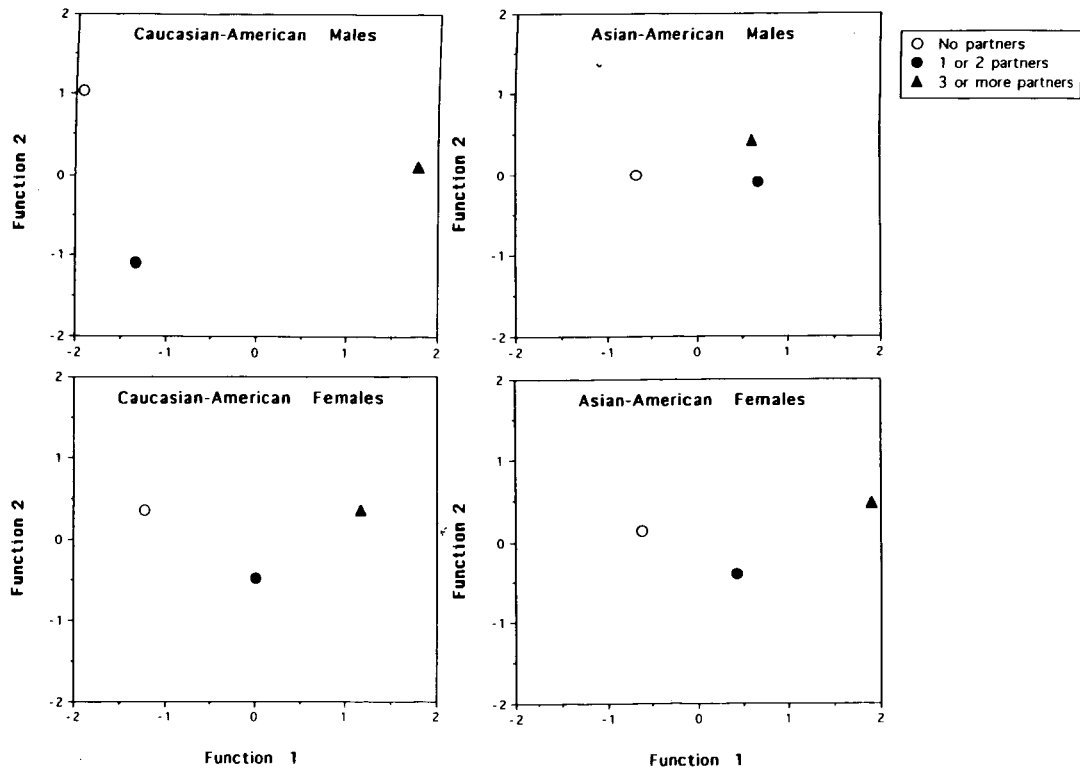


FIGURE 2 Group centroids for discriminant analysis of sexual experience level.



TABLE 3  
Standardized Canonical Discriminant Function Coefficients

<i>Functions</i>	<i>Caucasian Americans</i>				<i>Asian Americans</i>			
	<i>Males</i>		<i>Females</i>		<i>Males</i>		<i>Females</i>	
	<i>1st</i>	<i>2nd</i>	<i>1st</i>	<i>2nd</i>	<i>1st</i>	<i>2nd</i>	<i>1st</i>	<i>2nd</i>
<i>Variables</i>								
Risky behavior	.30	—	.19	—	.16	—	.45	—
Endorsing casual sex	.93	—	.68	—	—	.89	.62	—
Religiosity	—	.77	-.41	—	-.59	—	-.35	—
Physical attractiveness	.36	—	.08	—	-.16	—	—	-.07
Romantic success	—	-.86	—	-.66	.83	—	—	-.64
Percent variance explained	83%***	17%**	82%***	18%**	95%***	5%	88%***	12%*

*Note.* Blanks indicate variables that did not load on the function.

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

TABLE 4  
 Percentage of Individuals Correctly Classified  
 in Each Sexual Experience Group

	<i>Caucasian Americans</i>		<i>Asian Americans</i>	
	<i>Males</i>	<i>Females</i>	<i>Males</i>	<i>Females</i>
Virgins	100	83	79	65
One to two partners	90	58	39	56
Three or more partners	88	65	57	79
Total	92	67	61	64

## DISCUSSION

A major purpose of this study was to explore ethnic differences in late adolescents' sexual behavior. On the one hand, and consistent with findings of other researchers, Asian and Caucasian American college youth appear to differ in their sexual experience, with the former reporting fewer sexual partners. On the other hand, our findings indicate that the individual, peer, and family correlates of sexual experience are quite similar overall across the two ethnic groups. In general, individuals who reported having had more sexual partners were less conventional (i.e., they were less religious, and were more disposed to engage in a variety of risk-taking behaviors), and viewed themselves as more attractive and more successful in forming romantic relationships. Regarding this latter finding, which might seem circular at first glance, it is worth noting that perceived success in forming romantic relationships does not necessarily imply anything about the number of sexual relationships in which one has engaged; indeed, the association between these two variables is not linear (see Table 2). As we expected, endorsement of casual sex, that is, sex without love or commitment, also was generally associated with having had a relatively high number of sexual partners, as opposed to few or none. Together, the five key variables form discriminant functions that correctly classified between 61% and 92% of individuals regarding their level of sexual experience.

In contrast to studies based on younger adolescent samples, measures of family factors (parental education, late adolescents' perceptions of parental warmth and acceptance, conflict with parents, and autonomy in decision making) typically were not associated with differences in sexual experience. One exception occurred for Caucasian American females, for whom family relationships (conflict and autonomy in decision making) continue to have some utility in predicting level of sexual experience. It is not readily apparent why this is so. A second exception was the finding that Caucasian

American males whose parents had higher educational attainment reported more sexual experience. This finding contrasts with results of studies of early adolescents that show an inverse association between family socioeconomic status and adolescents' sexual activity (Steinberg, 1996). Perhaps, as sexual relationships become normative during late adolescence and young adulthood, higher family social status becomes an asset to Caucasian American males in forming sexual relationships. This may be especially true in samples such as ours that have mostly middle and upper middle class family backgrounds.

The general decline of family variables as predictors of sexual behavior from early adolescence to late adolescence may be understood in terms of psychological, social, and opportunity factors. Adolescents experience increasing emotional and behavioral autonomy from their parents as they grow toward adulthood; as a consequence, and across a number of outcomes, the extent of family influence on adolescent development diminishes (Greenberger & Chen, 1996; Steinberg & Silverberg, 1986). Moreover, late adolescents' knowledge that sexual experience is normative in their peer group may undermine inhibitory or conservative parental influences on young people's sexual behavior. Family influences are likely to be further attenuated in circumstances where adolescents no longer live in the home—as was the case for the great majority of our college sample. In these circumstances, parents lack the opportunity to exert control and sanctions over their offspring.

One of the most intriguing findings of the present study is the apparent inconsistency between sexual attitudes and behavior for Asian Americans, especially males. On the one hand, Caucasian and Asian Americans endorsed casual sex to a similar degree, a finding that suggests exposure to similar cultural forces. Recall that the vast majority of Asian Americans in our sample had lived in the U.S. for at least 10 years or had been born in the U.S. On the other hand, Asian and Caucasian Americans differed significantly in number of sexual partners. A possible explanation for the finding that attitudes consistent with approving of casual sex were not related to Asian Americans' level of sexual experience is that Asian American parents may play a larger and more effective role in controlling their adolescents than do Caucasian American parents. This notion is supported by the ethnic differences we found in adolescents' perceived autonomy from parents in decision making (i.e., Asian American college students reported less decision-making autonomy). Furthermore, if adolescents' autonomy from parents plays a role in their amount of sexual experience, we would expect a significantly *smaller* ethnic difference in number of sexual partners for the preceding year than for the lifetime. Some of the

sexual relationships during the preceding year are likely to have been new ones, initiated within the past 12 months, and may have been facilitated by students' increased level of physical separation from parents and increased independence from direct parental control. A tendency toward reduction of ethnic differences in level of sexual experience from "lifetime" to "this year" was, in fact, suggested by our findings. The number of sexual partners during the past year for Asian American males was, on average, 40% of that for Caucasian American males, whereas the corresponding percentage for number of lifetime sexual partners was 27%. Similarly, the respective percentages for Asian American females were 44% and 37% of the number of sexual partners reported by Caucasian American females.

The current study found ethnic differences in late adolescents' level of sexual experience, and identified a set of factors that are closely related to different levels of experience. However, these results need to be viewed in light of several important limitations of the study. For example, the correlational nature of our data prevents us from making causal inferences regarding the association between sexual experience and attitudes toward casual sex or involvement in risky behavior. Indeed, it is likely that these associations are bidirectional. Furthermore, our sample was limited to college students who had relatively well-educated parents—especially the Caucasian Americans. Although our self-selected sample approximates the gender and ethnic composition of the university population from which it was drawn, generalization of our results to the overall populations of Caucasian and Asian Americans is not warranted. Finally, grouping all Asian Americans together as we did, based on empirically demonstrated similarities, might not be justified in studies with larger, different, and more representative samples of Asian Americans, or in studies with simply more *representative* samples of Asian Americans. Future research on late adolescents' and young adults' sexual behavior should address these limitations, look further at possible differences among Asian Americans of different national and socioeconomic origins and degree of acculturation, and examine a wider range of variables reflecting young people's sexual experience and their correlates.

### ACKNOWLEDGMENTS

Data collection for this project was supported by research funds from the Academic Senate of the University of California, Irvine, to Chuansheng Chen and Ellen Greenberger. We thank the many undergraduate students who assisted in the project.

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Received April 3, 1995

Revision received September 29, 1995

Accepted January 25, 1996

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