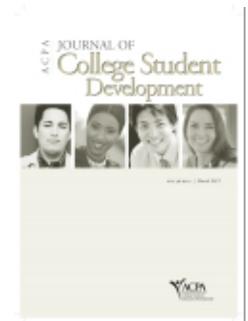# The Role of Motivation, Parental Support, and Peer Support in the Academic Success of Ethnic Minority First-Generation College Students

Jessica M. Dennis, Jean S. Phinney, Lizette Ivy Chuateco

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The Role of Motivation, Parental Support, and Peer Support in the Academic Success of Ethnic Minority First-Generation College Students

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The role of personal motivational characteristics and environmental social supports in college outcomes was examined in a longitudinal study of 100 ethnic minority first-generation college students. Personal/career-related motivation to attend college in the fall was a positive predictor and lack of peer support was a negative predictor of college adjustment the following spring. Lack of peer support also predicted lower spring GPA.

Educational researchers are interested in predicting the academic success and adjustment of college students in general, but the prediction of academic success for at-risk students is especially important. One group of at-risk students includes ethnic minority first-generation college students, who typically have poorer academic performance and higher dropout rates than other students. Although ethnic minority students are more likely than other students to be the first in their family to attend college (Terenzini, Springer, Yaeger, Pascarella, & Nora, 1996; Zalaquett, 1999), most research has focused on first-generation college students as a group, without focusing specifically on only those who are ethnic minorities. These researchers have found that first-generation college students may be less equipped for college due to poor academic preparation from high school (Zalaquett) and lower critical thinking scores prior to college (Terenzini et al.). These students tend to work more hours and expect to take longer to complete their degrees (Terenzini et al.). The fact that the parents of first-generation college students lack first-hand knowledge of the college experience may pose another obstacle for these students. Their parents typically cannot help them directly with college tasks (Brooks-Terry, 1988; Zalaquett). First-generation college students are also likely to have unrealistic expectations about college (Brooks-Terry) and lack knowledge of the university system (York-Anderson & Bowman, 1991).

Thus, the literature on first-generation college students paints a picture of these students as lacking in both personal skills and social supports that could contribute to positive academic outcomes in college (Terenzini et al., 1996). If these students are from ethnic minority backgrounds as well, they face additional challenges. For example, students from cultural backgrounds emphasizing family interdependence may be expected to fulfill obligations to the family that conflict with college responsibilities (Tseng, 2004). In a study focused on ethnic minority first-generation college students, Richardson and Skinner (1992) also found that these students were less prepared for college.

However, some students who participated in the Richardson and Skinner (1992) study managed to develop successful strategies

despite their initial shortcomings. Many minority students who are the first in their families to attend college do very well (Gandara, 1982). Ethnic minority young people from lower socioeconomic backgrounds often see education as the means to better their lives and avoid the difficult lives of their parents (Lopez, 2001). Furthermore, their parents can instill in their children the expectation of attending college and can provide encouragement and emotional support. Thus, a number of strengths are available to counteract the academic risk factors these students face. However, there is little evidence regarding the role of student motivations and social support on college outcomes for ethnic minority first-generation college students.

In the present study, we take an ecological perspective and include aspects of the person and of the environment in predicting achievement and adjustment after two years of college. According to ecological theory, development is the result of interactions between characteristics of the person and the environment over the course of one's life (Bronfenbrenner & Morris, 1998). With reference to college students, academic success is a function of both personal characteristics such as mental ability, academic skills, motivation, and goals, and the characteristics of the environment, which can be conceptualized as a system of nested interdependent structures (Muuss, 1996). Although the environment includes many systems of influence, Bronfenbrenner (1989; Bronfenbrenner & Morris) has recently focused on proximal processes that involve patterns of interaction between the person and the immediate environment. Face-to-face interaction with, and support from, family members and peers are among the most common and important proximal processes for adolescents and young adults and play an important role in academic outcomes (Muuss).

Sedlacek and colleagues (Fuertes & Sedlacek, 1994; Tracey & Sedlacek, 1985, 1987) have found that noncognitive variables such as positive self-concept and the availability of supportive individuals are predictive of academic success in college for minority students, and can sometimes be even more important than traditional measures of cognitive skills such as the SAT. In selecting aspects of the person and the environment to measure for the present study, we sought to include noncognitive variables that have been shown to be important for ethnic minority students who are the first in their family to attend college. The model that guided this study is presented in Figure 1. Although background characteristics such as gender, ethnicity, SES, and high school GPA are expected to be related to college outcomes (Fry, 2002; Tinto, 1993), the goal of the study was to investigate the extent to which personal characteristics of students, specifically their motivations to attend college, and contextual factors, namely, the availability of social support from family and peers, influence college outcomes over and above the effects of these background characteristics.

The motives that students have for attending college are influenced by their cultural values (Phinney, Dennis, & Osorio, in press). Markus and Kitayama (1991) have suggested that individuals with collectivistic orientations are motivated to achieve in order to meet the demands and expectations of others, particularly family members, whereas those with an individualistic orientation are more likely to be motivated for personal reasons. The motivation to attend college can be related to both individual and collective concerns. Individual motivations are based on personal interest, intellectual curiosity, and the desire to attain a rewarding career. Collectivist motivations include going to college in order

to meet the expectations of the family. Cote and Levine (1997) found that students with personal/intellectual motivation to attend college had higher college grades than those with other types of motivation. Phinney et al. (in press) also found that career and personal motivation was related to college adjustment for an ethnically diverse sample. In the present study, we measured both individualistic and collectivistic motives for attending college. We explored the relative importance of each type of motivation in predicting college outcomes for ethnic minority first-generation college students.

In addition to the motivations for attending college, we investigated the role of the environment in academic performance. Researchers have looked at the students' social environment and have examined the impact of family and peers on academic outcomes. Although closeness with family members has been found to decline throughout the course of adolescence for European or European American adolescents (Grotevant & Cooper, 1998; Helsen, Vollebergh, & Meeus, 2000; Meeus, 1996), support from parents remains an important predictor of adjustment in late adolescence (Meeus). A supportive relationship
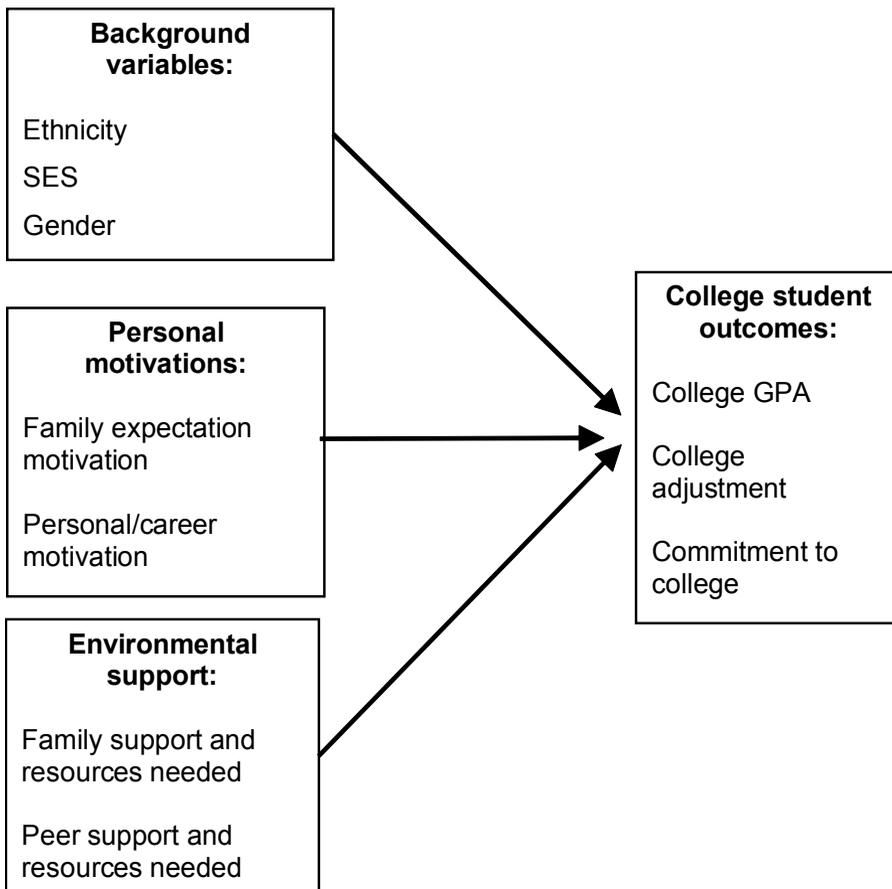

FIGURE 1. Model of the Effects of Personal Motivations and Environmental Support on College Outcomes

with parents has been shown to be important for the maintenance of psychological well-being for ethnic minority college students (Rodriguez, Mira, Myers, Morris, & Cardoza, 2003). There is some evidence, both qualitative (Arellano & Padilla, 1996) and quantitative (Hurtado, Carter, & Spuler, 1996; Solberg, Valdez, & Villarreal, 1994; Solberg & Villarreal, 1997), that social support, including support from parents, is related specifically to adjustment in college for ethnic minority college students.

Researchers have also compared the support of parents to that of peers in relation to the adjustment of ethnic minority college students. Existing evidence from researchers in higher education suggests that peer support may be extremely important for the academic adjustment of college students (Astin, 1993; Tinto, 1993). In a study by Hurtado and colleagues (1996), Latino college students reported that college peers provided the most support in their first year, although parents were also frequently cited as providing support. Hurtado and colleagues also found that peer support was more closely related to social adjustment, while parental support was a better predictor of emotional adjustment. Others, however, have found that aspects of both parent and peer relationships are important in a number of outcomes among college students, such as a sense of social identity, social adjustment, personal-emotional adjustment, and goal commitment (Lapsley, Rice, & Fitzgerald, 1990). Still others (Rodriguez et al., 2003) have found that peer support is more strongly related to general psychological adjustment of college students; they suggest that peers are more able to provide the resources needed for the specific challenges of college students. Peers can provide support that is more directly instrumental to college outcomes by forming study groups, sharing

notes and experiences, and giving advice about classes to take and strategies to use (Richardson & Skinner, 1992). It is precisely these types of activities that family, especially the parents of first-generation college students, cannot provide. Thus, we expected that peer support would be a stronger predictor of college outcomes than family support.

Sarason, Sarason, and Pierce (1990) have suggested that social support is important because it provides one with a "safety net" to explore and experiment in the world. Individuals who perceive support feel that they have someone to turn to when problems arise. Nevertheless, the presence of family and peer support may be less critical than the lack of support. In other words, the lack of a safety net may be more salient than the availability of such a net. In a study of coping among at-risk college ethnic minority students (Phinney & Haas, 2003), students wrote open-ended weekly journals regarding stress they were facing, the way they dealt with stress, and the type of support they needed in dealing with stress, if any. Students who were coping well rarely spontaneously mentioned that they were receiving support, even if they were receiving support. However, students who were having trouble coping often stated that they wished they had someone to provide help, guidance, or emotional support. The perception that one lacks resources may be more closely related to outcomes than the amount of support one perceives as available. In the present study, we used both perceived support and perceived *lack* of support from family and peers, in order to predict college achievement and adjustment.

In summary, both motivational characteristics and environmental social supports appear to make important contributions to academic outcomes. To examine these effects, we assessed two types of motivation, career/personal and expectation motivation, and two

types of social support, perceived family and peer support and lack of needed support from family and peers. These predictors were assessed in the fall of the second year of college, and outcomes were assessed the following spring. Rather than simply using college grade point average as an outcome measure, we also included adjustment to college and commitment to college. We hypothesized that both types of motivation would predict college outcomes. We also hypothesized that peer support would be more predictive of college achievement and adjustment than family support and that a lack of needed peer support would be a stronger predictor than perceived peer support.

METHOD

Participants

Participants were 100 college students (84 Latino, all Mexican or Central American; 16 Asian, all Chinese or Chinese/Vietnamese; 70% women, 30%, men) who were part of a longitudinal study focusing on the experiences of ethnic minority students whose parents did not complete college. The participants attended an ethnically diverse urban commuter university on the west coast. The university serves predominantly ethnic minority students from lower and lower-middle class backgrounds, many of who are immigrants. The present sample was similar to the university's

TABLE 1.

Demographic Characteristics of Participants

	Latino	Asian American
	n = 84	*n* = 16
Mother's Education Level		
None to Completed Elementary Education (8th Grade)	48%	31%
Some high school	18%	32%
Completed high school	27%	31%
Some college	7%	6%
Father's Education Level		
None to Completed Elementary Education (8th Grade)	54%	44%
Some High School	16%	19%
Completed High School	25%	31%
Some College	5%	6%
SES		
Low	50%	31%
Medium	31%	56%
Medium-High	19%	13%
Generation Status		
First-Generation	18%	62%
Second-Generation	73%	38%
Third-Generation or Greater	9%	0%

student population of which approximately 51% are Latino and 24% Asian/Asian American.

The average age of the participants was 19.02 (SD = .69) in the fall of their sophomore year. Parental education level, SES level, and generation status for the participants is presented in Table 1. Chi-square analyses indicated a significant difference between Latinos and Asians in generation status (χ^2 = 20.29, df = 2, p < .001). Inspection of the cells showed that Latino students were more likely to be second generation (i.e., born in the United States with one or both parents born outside the U.S.) or third generation (i.e., the student and both parents were born in the U.S.); and Asian students were more likely to be first generation (i.e., born outside the United States). There were no significant differences between the ethnic groups for mother's or father's education level or SES. Most of the participants (n = 84, 84%) lived with parents or family at the end of their second year of college and two-thirds (n = 63, 63%) had jobs.

Procedures

This study was a short-term longitudinal study based on data collected in the fall and the spring of students' second year in college. Initial recruitment to the study took place at the beginning of the fall quarter of their first year. Entering freshmen were asked to complete a survey of college attitudes in a course required of all incoming freshmen that introduced them to the university. Instructors in three sections of the course did not require the survey due to time constraints, and in some cases students neglected to complete the assignment. Of the 1174 students enrolled in the course, 856 completed the fall survey. From this larger sample of students, a sub-sample of students was asked to be a part of a

longitudinal study of college experience. The criteria for the study included self-identifying as Latino (Mexican or Central American), Chinese, Chinese/Vietnamese, or African American (the latter not included in the present study due to small numbers), having parents who did not complete college, and being first-time freshmen aged 18 or 19. All participants who met the criteria for the study were invited to participate. Of the 390 students who were eligible, 144 students agreed to participate in the study and completed consent forms, agreeing to allow access to their academic records.

Participating students were contacted again in the fall and spring of their second year in college to complete follow-up surveys. Of the 144 students who began participating in the longitudinal study in the fall of year one, 100 were still participating in the study in the spring of the second year. Of the 44 students who left the study, 17 (39%) dropped out because they were no longer enrolled in any college or university and the rest dropped out because they were unable to complete their surveys, generally due to time constraints. Those who left the project were not significantly different from those who stayed in terms of SES, gender, ethnicity, or GPA in the first quarter of college, but they did have lower GPAs in high school, t (141) = −3.13, p < .01.

Measures

All measures used in the study were pilot tested for relevance and suitability with ethnic minority first-generation college students. On the basis of focus group meetings with undergraduate students representative of the target sample, existing measures were modified and new measures developed as described below. The revised measures were used in a pilot study of 800 incoming freshmen the year before the current study was conducted, and

scales were revised on the basis of the pilot data.

Control Variables. Participants' high school GPAs were collected from official university records. In addition to high school GPA, ethnicity (0 = Asian, 1 = Latino), gender (0 = Female, 1 = Male), and SES (1 = Low, 2 = Medium, 3 = Medium High) were used as control variables. The SES variable was created by taking the mean of the mother's and father's education level and the mother's and father's occupation level. In all cases, the higher parents' education or occupation level was used. SES by ethnicity is reported in Table 1. Low SES indicates that one or both of the parents had unskilled occupations and/or had completed no more than some high school. Medium SES indicates that one or both parents had skilled occupations and/or had no more than a high school education. Medium-high SES indicates both parents had white-collar or professional occupations and/or had completed high school or that at least one parent has some college education. No participants had parents who had completed college.

Predictor Variables. All predictor variables were assessed in the fall quarter (i.e., beginning) of the participants' second year of college.

Motivation to attend college was assessed using subscales from a version of the Student Motivations for Attending University (SMAU) scale by Cote and Levine (1997), revised to be more relevant to first-generation minority college students (Phinney et al., in press). The Family Expectation-driven Motivation subscale contained five items relating to attending college because of pressure from family. An example of an item from this subscale is "There were considerable pressures on me from my parents/family to go to college" (α = .77). The Personal/Career Motivation subscale contained 10 items relating to attending university in order to develop intellectually. Examples of items from this subscale are, "University is a way for me to get into an interesting and satisfying career," and "University is satisfying because it gives me the opportunity to study and learn" (α = .75). Responses were on a 5-point, Likert-type scale (1 = *Strongly disagree*, 5 = *Strongly agree*).

Participants were asked about the availability of social support when facing college-related problems. These questions were developed for this study based on the provider-support model which measures support by asking individuals how much they believe specific people will provide support or help with general issues (Malecki & Demaray, 2002; Procidano & Heller, 1983). For *Family Support*, participants rated in a single item, how supportive family members are or would be in helping them to deal with college-related problems. For *Peer Support*, participants rated in a single item, how supportive friends or fellow students are or would be in helping them to deal with college-related problems. Both items were rated on a 5-point scale (1 = *Not very supportive*, 5 = *Very supportive*).

Participants were asked the extent to which they were lacking needed resources. These questions were developed based on focus groups in which participants discussed the importance of needed support (Phinney & Haas, 2003). For *Peer Resources Needed,* participants stated whether they were lacking help or support from friends or classmates. For *Family Resources Needed*, participants rated the extent to which they were lacking support or understanding from their family. Both items were rated on a three-point scale (1 = *Not lacking or not needed*, 2 = *Lacking, but not seriously needed*, 3 = *Lacking and very much needed*).

TABLE 2.

Correlations Among Control, Predictor, and Outcome Variables

	Cumulative College GPA Spring Y2	College Adjustment Spring Y2	College Commitment Spring Y2
Control Variables			
Ethnicity	−.19*	.13	.16
Gender	−.24	−.05	−.09
SES	.07	.04	.04
High School GPA	.40**	−.22*	−.17
College Motivation Variables			
Family Expectation Motivation	−.16	−.08	.08
Career/Personal Motivation	.17	.49**	.37**
Family Support Variables			
Family Support	.12	.15	.13
Family Resources Needed	−.37**	−.32**	−.25**
Peer Support Variables			
Peer Support	.23*	.25**	.14
Peer Resources Needed	−.40**	−.44**	−.34**

Note. Ethnicity was coded, 0 = Asian, 1 = Latino; gender was coded 0 = Female, 1 = Male.

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

Social support variables and resources needed variables were significantly correlated with one another ($r = −.31$, $p < .003$ for Family Support with Family Resources Needed; $r = −.21$, $p < .04$ for Peer Support with Peer Resources Needed). However, the correlations were quite low and therefore both sets of variables were included in the analyses.

Outcome Variables. All outcome variables were assessed in the spring quarter of the participants' second year of college (i.e., the end of the second year).

Cumulative grade point average was collected from official school records at the end of spring quarter.

College adjustment was measured using a scale containing four items measuring the extent to which students felt a sense of belonging to the college environment. These items were taken from the attachment scale of Baker and Siryk (1984) Student Adaptation to College Questionnaire. Examples of items include, "I feel pleased about my decision to attend college," and "I feel that I fit well in the college environment" ($\alpha = .83$). Responses were on a 5-point, Likert-type scale (1 = *Not at all like me*, 5 = *Very much like me*).

The College Commitment scale was developed for the current study through the use of focus groups. Focus group members responded to questions (among others) regarding why they persisted in college while

many of their peers did not. Many respondents alluded to their commitment to getting a college degree. Based on their responses, we developed a scale of four items to assess the students' determination and commitment to complete college. Typical items were "I am sure that college is right for me," and "I am determined to complete college, no matter what kinds of difficulties I may encounter." Responses were on a 5-point, Likert-type scale (1 = *Not at all like me*, 5 = *Very much like me*, α = .81).

RESULTS

Comparisons of Latino and Asian Participants

As a preliminary step, *t*-tests were conducted in order to examine mean differences between Latino and Asian participants on all control, predictor, and outcome variables. A total of 11 *t*-tests were performed. There were no significant differences between Latino and Asians for any variables except high school GPA, $t(140) = -2.82$, $p < .005$, and cumulative college GPA, $t(140) = -1.97$, $p < .05$. In both cases, Asians had higher GPAs (*M* = 2.95 for high school GPA; *M* = 3.27 for college GPA) than Latinos (*M* = 2.68 for high school GPA; *M* = 2.99 for college GPA).

Correlations among Predictors and College Outcomes

Before carrying out regression analyses to test the hypotheses, correlations among the predictor variables and college outcomes were calculated, and alpha level of .05 was used (see Table 2). In general, the perception of family and peer resources needed was more strongly related to the outcomes than the perception of available family and peer support. Also, career/personal motivation was more strongly related to college outcomes than was family

expectation motivation.

Regressions Predicting College Outcomes

We expected that both types of motivation in the fall would be related to college outcomes in the spring. We also hypothesized that peer support would be more predictive of college achievement, commitment, and adjustment than family support, and that a lack of needed peer support would be most strongly related to college outcomes. In order to examine effects of motivation and social support variables on college outcomes, simultaneous regressions (i.e., ordinary least squares regressions) were conducted separately for each of the outcome variables. Although it is unfortunate that we had unequal samples of Asian (*n* = 16) and Latino (*n* = 84) college students, we chose to use multiple regression analysis because it allowed us to investigate the relationship between our predictors and our outcome variables, while taking into account any mean differences between ethnic groups, even with unequal samples sizes (Cohen & Cohen, 1983). In the present study, there were no significant differences between ethnic groups on any of the predictor variables, and the only significant difference between Asians and Latinos for the outcomes variables was for GPA, $t(94) = 2.03$, $p < .05$, with means of 2.95 for Asians and 2.67 for Latinos. By including ethnicity into the model, we could adjust for this mean difference, while still testing for the prediction of the other variables for the whole sample.

Each regression included four control variables: high school GPA, ethnicity (0 = Asian, 1 = Latino), gender (0 = Female, 1 = Male), and SES (1 = Low, 2 = Medium, 3 = Medium High). The predictor variables were two types of motivation (personal/career and expectation motivation), two family support variables

TABLE 3.

Standardized Regression Coefficients for Predictors of College GPA, Adjustment to College, and College Commitment at the End of the Second Year of College

	Cumulative GPA $R^2 = .35**$ $F(10, 66) = 5.13$ β	College Adjustment $R^2 = .39**$ $F(10, 73) = 4.70$ β	College Commitment $R^2 = .24*$ $F(10, 72) = 2.28$ β
Intercept	1.26	3.89	4.61
Control Variables			
Ethnicity	−.12	−.04	.03
SES	.08	−.03	.03
Gender	−.15	.002	.04
High School GPA	.35**	−.26*	−.17
Motivation Variables			
Family Expectation Motivation	−.08	−.06	.18
Personal/Career Motivation	.11	.35**	.21+
Family Support Variables			
Family Resources Needed	−.05	.01	−.05
Family Support	−.03	−.01	.03
Peer Support Variables			
Peer Resources Needed	−.30*	−.38**	−.21+
Peer Support	.18	.17	.18

$+p < .10.$ $*p < .05.$ $**p < .01.$

(family support and family resources needed), and two peer support variables (peer support and peer resources needed). The results of these regressions are presented in Table 3. An alpha level of .05 was used for all regression results, although non-significant trends at the alpha level of .10 will be discussed with caution.

High school GPA was the strongest predictor of cumulative college GPA. It also predicted poorer college adjustment.

As expected, career/personal motivation predicted college adjustment with high school GPA and the other variables controlled. There

was a non-significant trend suggesting a link between that career/personal motivation and college commitment. Contrary to our hypothesis, family expectation motivation was unrelated to any outcomes.

Of the support variables, as was expected, the perceived *lack* of peer support predicted college GPA and college adjustment, with high school GPA and the other variables controlled. However, perceived peer support was not a significant predictor of any outcomes. Family support and the perceived lack of family support were unrelated to the outcomes after the other variables were controlled.

DISCUSSION

The present study was aimed at investigating the ways in which motivational characteristics and environmental social supports contribute to the academic outcomes of ethnic minority first-generation college students. We expected that both types of motivation would be related to college outcomes, but this expectation was only partially confirmed. Motivation to attend college based on personal interest, intellectual curiosity, and the desire to attain a rewarding career was found to be predictive of college adjustment. There was also a trend for career/personal motivation to predict college commitment, even after controlling for gender, ethnicity, SES, high school GPA, and social support. This finding is consistent with that of Cote and Levine (1997) who found that both the career and personal motivations of Canadian college students were significant predictors of academic skills such as self-management skills, organization, and planning after two years in college. Our results demonstrate that this connection between the personal/career motivation to attend college and college outcomes is also present for ethnic minority students.

Family expectation motivation, on the other hand, was not significantly related to any of the college outcome variables either in the simple correlations or when controlling for other variables. These findings are surprising in light of our prediction that collectivistic family expectation motivation would be important for ethnic minority college students. Although both personal/career and family expectation motivations were highly endorsed by these college students, only the personal/career motivation was related to college outcomes. In a previous study, we found that career/personal motivation was associated with valuing family interdependence amongst ethnic minority students (Phinney et al., in

press). In other words, the motivation to attend college for personal and financial reasons may not be completely separable from interdependent values for these students. Although both individually oriented and family-based motivations may be found concurrently among ethnic minority youth, our findings show that personal motivation is more closely related to adjustment and commitment. Although these students and/or their parents were born in countries with collectivist cultures, the ability to have both collectivistic and individualistic motivations may be most predictive of academic success in the United States.

The environmental social supports that were examined included perceptions of family and peer support and also the perceived lack of needed family and peer support. It was expected that the *lack* of needed support would be more predictive of college outcomes than the presence of support. The results of correlational analysis confirmed this, in that both family and peer resources needed demonstrated consistently higher correlations with the college outcomes than did the perception of family and peer support available. Although family resources needed was significantly correlated with lower college GPA, adjustment, and commitment, this variable was no longer related to the outcomes when the other variables were controlled in the regression analysis. Peer resources needed, however, continued to remain significant, even when all other control, support, and motivation variables were included in the models.

The results of the correlational analyses are similar to past research that has found that both family support (Arellano & Padilla, 1996; Hurtado et al., 1996; Lapsley et al., 1990; Solberg et al., 1994; Solberg & Villarreal, 1997) and peer support (Hurtado et al.; Lapsley et al.; Richardson & Skinner, 1992;

Rodriguez et al., 2003) are related to college outcomes. Nevertheless, the results suggest that peer support (or lack of needed peer support) is a stronger predictor of college grades and adjustment than support from the family, when both family and peer support variables are included in a regression analysis. These results confirm our hypothesis that first-generation college students would perceive their peers as better able than their family to provide the support they needed in order to do well at college. Qualitative evidence has shown that college students report relying on other students in their classes in order to form study groups and share assignments (Richarson & Skinner). In focus groups carried out with some of the participants in the current study, many students reported that peer support was the most helpful strategy for dealing with academic problems. Although the family members of first-generation college students can provide emotional support, most family members cannot provide vital instru-mental support. These findings also cor-respond to those of Astin (1993) who found, in a large longitudinal study of diverse populations of college students, that some of the most important predictors of college outcomes were characteristics of students' peer groups.

The present study is unique in that both support and the lack of needed support were included in analyses. Most studies have focused on perceptions of the amount of support individuals have access to, making the assumption that more perceived support provides better protection against stress and greater availability of help when problems arise, while lower support indicates risk (Sarason et al., 1990). In other words, support and a lack of needed support are considered to be at opposite ends of the same continuum. In the present study, we found that perceptions of available support and of lack of needed support are not completely overlapping constructs, but instead are only weakly correlated. It is the lack of needed support that is more strongly related to college outcomes.

Like the results from a recent study of coping in a similar sample of minority college students (Phinney & Haas, 2003), the results of the present study suggest that those who are experiencing academic and adjustment problems feel the need for someone to provide help, guidance, or emotional support, whereas those who are doing well are less likely to feel a lack of support. When it is not needed, the support of others may be taken for granted and hence be less salient and less predictive of other factors in one's life. The impact of lack of peer support on academic outcomes suggests the value of programs that promote study groups, peer mentoring, or similar services that help students find the support they need to deal with the pressures of college.

There are several limitations of the present study. Most of the data for the study, including all the predictor variables, were based on self-report measures; only the grade point average information was collected from official records. While it is important to understand the students' own perceptions of the support available to them, future research would benefit from a more ecological approach that included measures of other aspects of the social environment, such as the reports of family members and peers. The sample in this study comprised entirely of first-generation college students who were mostly Latino. Although main effects of ethnicity were included as a control, ethnic differences in the relations between variables could not be examined because of the small numbers. The study was also conducted at an urban commuter school at which the majority of the students were from ethnic minority backgrounds. The ethnic

minority participants in this study are likely to be typical of many such students who attend minority-serving institutions, rather than minority students attending mainly white universities where most research has typically been conducted. As is true with any study, the findings of this study must be interpreted while keeping in mind the specific population that was sampled. Generalizations to other ethnic minority college student populations must be made with caution. Finally, although the study was longitudinal, it included only two time points. It would be beneficial to determine if these types of motivations and support are predictive of outcomes later in college, including persistence in finishing a degree.

In conclusion, these finding demonstrate that both personal/career motivation and a lack of needed support from peers are important predictors of college GPA, adjustment, and, possibly, commitment to college, even when the strong effects of academic aptitude as indicated by high school GPA are controlled. Although both individualistic and collectivistic motivations are endorsed by these college students, having the more individually-oriented motivation to attend college at the beginning of the sophomore year is an important personal characteristic that predicts feelings of satisfaction with the college environment and commitment to finishing college at the end of the year. Furthermore, the lack of contextual resources such as the support of peers predicts poorer grades and adjustment later in the same year. Thus, the study supports an ecological framework by showing that both personal characteristics and contextual features contribute to the adjustment of ethnic minority first-generation college students. Although such students may be more likely than other students to lack these important resources, their availability can contribute to their academic success. Future studies from an ecological perspective must move beyond investigating the additive effects of personal characteristics and contextual support and investigate the ways in which these interact with one another to influence the development of college students (Bronfenbrenner, 1989).

Correspondence concerning this article should be addressed to Jessica M. Dennis, Department of Psychology, California State University, Los Angeles, 5151 State University Drive, Los Angeles CA 90032; jdennis@calstatela.edu

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