Individual and Familial Factors Influencing the Educational and Career Plans of Chinese Immigrant Youths

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The authors explore how individual and familial factors predict educational and career aspirations, plans, and vocational outcome expectations of urban, Chinese immigrant youths. Participants were 265 Chinese immigrant high school students in New York City. The results indicated that higher self-reported English language fluency and career-related support from parents positively predicted career and educational aspirations and plans to go to college, lower English language fluency predicted plans to work immediately after high school, and perception of educational barriers predicted negative career expectations. Implications for future research and counseling in the career development of Asian immigrant youths are addressed.

In 2005, more than one third of all immigrants to the United States came from Asian countries, and, in this group, immigrants from China are the second largest group legally admitted to the United States (U.S. Department of Homeland Security, 2006). For many parents, a main reason for immigrating is to provide better educational and career opportunities for their school-age children (Trueba, Cheng, & Ima, 1993). Despite the recent influx of Asian immigrant youths in U.S. schools, very little is known about their unique challenges and career and occupational development. The current study investigates contextual factors influencing the educational and career aspirations and expectations of first-generation Chinese immigrant youths.

The process of migration and adjusting to life in the United States may be difficult for many Asian immigrant youths (Yeh, 2003; Yeh et al., 2005). Immigrant youths are often faced with cultural adjustment difficulties, such as language barriers, culture shock, and an inability to assimilate to the peer culture, which oftentimes lead to mental health symptoms such as anxiety and depression (Yeh, 2003).

Furthermore, Asian immigrants living in a low-income, urban environment experience many social and academic challenges. For example, in New York City, 22.4% of Asian children under age 17 years live below the poverty line, and 12.2% of them drop out of school (Citizens Committee for Children of New York, 2005). Although there are no statistics

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available on the exact dropout rate of Chinese immigrant students, the dropout rate among recent immigrants, especially those who immigrate during high school, is much higher in comparison to nonimmigrants (28.1% vs. 19.0%; Board of Education of the City of New York, 2000). The high dropout rate may occur because many recent Asian immigrants are from poor and rural areas in their home country, where they received little education and fewer years to learn English, which impedes their academic performance (The Coalition for Asian American Children and Families, 2001).

In recent years, there has been increased effort to understand minority students' career development (e.g., Fitzgerald & Betz, 1994; Leong & Serafica, 1995) and urban youths' educational and career issues (Kenny, Blustein, Chaves, Grossman, & Gallagher, 2003). However, there continues to be a dearth of research examining urban Asian immigrant youths' educational and career issues (Louie, 2001). Existing career development theories and constructs are also embedded in the White, middle-class norm and may not apply to Chinese immigrants (Ma & Yeh, 2005). Leong and Hardin (2002) urged researchers to examine the cross-cultural validity of career development models and theories and to incorporate variables that are specific to each culture. In the present study, a developmental contextual model is used to investigate the educational and career plans of Chinese immigrant youths. Culturally specific variables (e.g., parental values, language barriers) are used to enhance this conceptual framework.

Developmental Contextual Framework

Kenny et al. (2003) proposed using a developmental contextual model of career development (Vondracek, Lerner, & Schulenberg, 1986) to understand the educational and career plans of urban ethnic minority youths. This model focuses on the idea that an individual is living in multiple social contexts, each of which presents risks and protective factors contributing to his or her career development. For example, when youths are exposed to racist encounters with fellow students, they may be more likely to lose interest in school and have a pessimistic future orientation. In contrast, if youths are exposed to a positive and supportive classroom environment, they may be more likely to make a connection between their self and the future and engage in educational and career exploratory behaviors (Kenny et al., 2003; Vondracek et al., 1986).

Using a developmental contextual framework, Kenny et al. (2003) conducted two studies with urban high school students from various racial backgrounds, highlighting risk (perceptions of barriers) and protective factors (relational support) that predict school engagement and career attitudes. In Study 1, they found that students who perceive fewer barriers (e.g., discrimination, lack of financial support) and have support from family and kin report higher levels of school engagement and career aspirations. In Study 2, developmental contextual factors were expanded to include more specific items relevant to youths, such as family and kinship support, identification with school, attitude toward work, and career expectations. The results suggested that students who perceive a higher level of support from family and others within their environment report higher levels of school engagement, view work as important in their lives, aspire to become leaders in the field, and expect satisfaction in their future work.

Risk and Protective Factors Influencing Chinese Immigrant Students

In the present study, risk and protective factors identified in the previous literature, such as perceptions of barriers and family support, are explored to understand the influence of contextual variables on youths' development (Kenny et al., 2003). English language fluency and parental values are included in the conceptual model to highlight the unique experiences of Chinese immigrant students.

English Language Fluency

English language fluency is reported to be a critical factor for immigrants pursuing new career opportunities (Chow, 1999). Language barriers often prevent immigrants from entering the mainstream economy where English is an essential tool for communication. Language barriers also have an impact on which occupations are "safe" to pursue. For example, immigrant parents who experienced discrimination due to limited English fluency may encourage their children to pursue science or engineering careers, which are less language dependent than the social sciences (Leong & Serafica, 1995). Recent immigrant parents may also experience underemployment in this country from limited English fluency, because they often obtain a job that is below their skill or education level in their homeland (Chow, 1999; Ong & Umemoto, 1994).

In an interview study conducted with residents in New York City's Chinatown, it was reported that almost all of the non-English-speaking participants believed that their low English language fluency was a major barrier to obtaining a better job (Loo, 1998). They reported that factors such as their long work hours, age, and jobs that provide no English language training made it difficult for them to acquire important English language skills (Loo, 1998). This study underscores the impact of language fluency on vocational aspirations; however, the sample was limited to adult immigrants and did not include the experiences of recent immigrant youths in school.

Parental Value

Previous literature on Asian American academic achievement has focused on Asian cultural values emphasizing the importance of education (Tseng, Chao, & Padmawidjaja, 2007). One explanation for this value on education is that Asian families teach children to repay parents for their sacrifice, and high educational achievement is a way to bring honor to the family (Louie, 2001). In addition to values, Sue and Okazaki (1990) have suggested a theory of relative functionalism, proposing that academic and educational pursuit represent a response to racial, cultural, social, and political barriers, such as lack of leadership opportunities.

In a qualitative study conducted by Louie (2001), it was found that despite their diverse socioeconomic backgrounds, all Chinese American student participants shared that their parents have high educational expectations for them. They attributed their educational achievement to Chinese cultural values emphasizing hard work and education as a means for mobility. In addition, the study found that Chinese immigrant parents experienced racism and discrimination in this country and, hence, encouraged their children to pursue higher

education in order to gain equal opportunities. This research also highlighted the need to recognize potential barriers associated with career aspirations.

Perceptions of Barriers

Perceptions of barriers to educational and career achievement are an especially critical factor to consider for urban, Chinese immigrant youths. Using a developmental contextual framework, Kenny et al. (2003) emphasized that ethnic minority youths' perceived barriers negatively influenced their attitudes and behaviors about educational and career options. In addition, systematic barriers, such as gender and racial discrimination, lack of financial resources, and cultural barriers related to fitting in the college environment, are also relevant factors (McWhirter, 1997). In a later study, McWhirter, Rasheed, and Crothers (2000) expanded the conceptualization of barriers to include issues especially pertinent to youths, such as family problems and negative family attitudes. Current research has not investigated perceptions of barriers with Asian American and Asian immigrant samples. Given the cultural, familial, and social challenges that urban, low-income, Chinese immigrants experience, this variable may play an important role in their plans and attitudes toward career expectations. Moreover, the experiences of immigrant youths cannot be separated from their family setting when using a developmental contextual framework.

Parental Support

Family represents a major source of support, particularly for ethnic and racial minority adolescents (Kenny et al., 2003). It was found that perceived parental support from the father was related to the educational plans and vocational expectations of Mexican American high school girls (McWhirter, Hackett, & Bandalos, 1998). Parental encouragement was also found to have a direct effect on grades, career-related self-efficacy, and outcome (Ferry, Fouad, & Smith, 2000). Four main areas of parental support have been found to influence the vocational behaviors of youths (Turner, Alliman-Brissett, Lapan, Udipi, & Ergun, 2003): (a) instrumental assistance (parents' support for youths' career-related skill development), (b) vicarious learning (parents' provision of career-related modeling behavior), (c) verbal encouragement (parents' praise and encouragement associated with educational and career development), and (d) emotional support (support of the affect experienced by adolescents in relationship to their educational and career development).

Among Chinese immigrant parents, although most share high expectations for their children, strategies for offering support differ with parents' socioeconomic status (Louie, 2001). Middle-class parents have more financial resources to send their children to either private school or prestigious public high schools. They are also able to devote more energy to monitoring their children's free time. Working-class parents, on the other hand, lack the access to information about different schools. Limited English fluency makes it difficult for them to provide help for homework. Hence, for Chinese immigrant youths, parental support must be understood in the context of their social class (Louie, 2001).

Research Questions

Overall Research Question

How do perceptions of barriers in the environment, English language fluency, career-related support from parents, and parents' value on achievement predict educational and career aspirations, plans, and vocational outcome expectations?

Hypotheses

1. Perceptions of barriers will have a negative, significant relationship with educational and career aspirations, plans, and vocational outcome expectations. For example, the more barriers students perceive, the less likely they are to pursue higher education and career goals and have positive attitudes toward their future aspirations.
2. Levels of self-reported English language fluency will have a positive, significant relationship with educational and career aspirations, plans, and vocational outcome expectations. Students who report high levels of English language fluency are more likely to pursue higher education and have positive attitudes toward their future career.
3. Parental support will have a significant and positive relationship with educational and career aspirations, plans, and vocational outcome expectations. Students who perceive high parental support will be more likely to pursue higher educational and career aspirations and will have positive attitudes toward their future.
4. Parental value on achievement will have a significant and positive relationship with educational and career aspirations and plans. Students who perceive high parental value on achievement are more likely to pursue higher educational and career aspirations.

Additional Research Questions

1. Are the length of residence in the United States, age, and students' employment status significantly associated with the study's variables?
2. What is the relationship between parental values on achievement and vocational outcome expectations?

Method

Participants

Participants were 265 Chinese immigrant students from an alternative high school in New York City. Approximately 80% of the student population at this school were recent Chinese immigrants; the remaining 20% were African Americans and Latinos/as. There were 141 men (53.2%) and 124 women (46.8%). The mean age was 19.35 years (SD = 1.20), with an age range of 16 to 23 years. The students at this school tended to be older because their English language fluency and the limited number of transferable credits from China often set them back a few grade levels. All of the students were from low-income families and qualified for free lunch at school. In terms of employment status, 79 students (30.4%) reported that they currently had a job. Among them, 49 stu-

dents (18.5%) indicated that they were working in the service industry (e.g., restaurants). Other types of jobs included working in educational settings (n = 10, 3.8%) and the hospitality industry (n = 10, 3.8%).

The present study focused on cultural variables related to recent immigrants; hence, only students born in Mainland China and who had immigrated to the United States in the past 5 years (60 months) were included. The average length of residence in the United States was 20.18 months (SD = 14.01, range = 1–60 months). The majority of the participants (n = 234, 88.3%) had been in the United States for less than 36 months. Most of the participants lived with both parents (n = 197, 74.3%) or at least with one parent (n = 46, 17.4%). Only 21 participants (7.9%) did not live with their parents.

Instruments

Participants completed a demographic data sheet, providing information regarding their gender, age, birthplace, ethnic background, number of months living in the United States, first language, who they lived with, and current job.

Self-reported English language fluency (Yeh & Inose, 2003). Self-reported English language fluency was assessed using a composite score from three questions on the participants' present level of English fluency, how comfortable they were communicating in English, and how often they communicated in English. The responses are based on a 5-point Likert-type scale, with 1 = *very poor/not at all comfortable/never* to 5 = *very good/very comfortable/always.* In a previous study on international students in the United States, the alpha for this measure was reported to be .78 (Yeh & Inose, 2003). The alpha coefficient in the current study was .88. This method of assessing English language fluency was adapted from previous studies (Barratt & Huba, 1994; Cross, 1995) on international students and immigrant populations.

Perceptions of Educational Barriers (PEB; McWhirter et al., 2000). The PEB assesses potential barriers to postsecondary education as perceived by high school students. Barriers such as discrimination, financial concerns, and family problems are listed. The PEB originally included the following parallel subscales: Likelihood, Magnitude, and Difficulty of Overcoming Barriers. Kenny et al. (2003) used only the Likelihood subscale because all three subscales are highly correlated. In the current study, only the Likelihood subscale was used. The 28 items are rated on a 4-point Likert-type scale, with 1 = *not at all likely* to 4 = *definitely.* Although this subscale has not been used with Chinese immigrant students, it was normed on urban high school students. It has also been used in previous studies with high school students from diverse racial backgrounds, with a reported alpha range of .89 to .91 (Kenny et al., 2003; McWhirter, Torres, Salgado, & Valdez, 2007). The alpha coefficient in the current study was .86.

Career-Related Parent Support Scale (CRPSS; Turner et al., 2003). The CRPSS is designed to assess students' perceptions of their parents' support toward educational and vocational development. The CRPSS is a 27-item measure consisting of four subscales: Instrumental Assistance, Career-Related Modeling, Verbal Encouragement, and Emotional Support. The responses are rated on a 5-point Likert scale, with 1 = *strongly disagree* to 5 = *strongly agree.* The CRPSS was validated on an urban, low-income, racially diverse middle school population. Turner et al. (2003) reported sufficient construct validity of the CRPSS and its

subscales. Internal consistency scores across the four subscales ranged from .78 to .85, and .92 was the score for the overall scale. In the current study, the alpha coefficients for the four subscales ranged from .76 to .86. The alpha coefficient for the overall scale was .91.

Parent Values Measure (PVM; DeCarlo & Luthar, 2000). The PVM is designed to measure students' perceptions of their parents' emphasis on personal achievement and personal well-being. It is a six-item scale, with three items on the Personal Achievement subscale and three items on the Personal Well-Being subscale. Participants select three out of six values that they perceive as most important to their mother and father and rank order them from 1 (*most important*) to 3 (*least important*). DeCarlo and Luthar (2000) indicated that either latent class analyses or simple tallies of achievement items endorsed in the top three items could be used. Previous research has used the latter scoring approach (Luthar & Becker, 2002). In the current study, the achievement items most important to mother and father were tallied.

Vocational/Educational Aspirations Checklist (VEAC; Rasheed, 2001). The VEAC was designed by Rasheed (2001) to measure high school students' educational and vocational aspirations given that there are no constraints. Participants checked the educational or vocational options they would most want to pursue if they were free to choose. Eight possible responses were used in the present study and ranged from "Get a job immediately after high school and not pursue any further education or training" to "Complete a professional graduate degree (e.g., doctorate or PhD, an MD [doctor], or a JD [lawyer])." The response option "Enroll in a ROTC [Reserve Officers' Training Corps] program" listed in the original checklist (Rasheed, 2001) was not used in this study because the ROTC program requires U.S. citizenship, which most of the immigrant student participants did not qualify for.

Vocational/Educational Expectations Scale (VEES; Rasheed, 2001). The VEES was also developed by Rasheed (2001). It was designed to measure students' expectations to work after high school, pursue vocational/technical training, and attend college. This measure includes a total of six items, with two items for each type of vocational/educational plan: work, vocational/technical training, and college. Each of the options is rated on a 5-point Likert scale, with 1 = *very unlikely* to 5 = *very likely.* Each set of two items is summed with separate totals for Work, Vocational/Technical, and College. The scores for each of the subscales range from 2 to 10, with higher scores indicating higher expectations in each of these areas. In a previous study, the alpha coefficients were reported to be .75 for the Work subscale, .55 for the Vocational/Technical subscale, and .67 for the College subscale (Rasheed, 2001). In the current study, the alpha coefficients were .60 for the Work subscale, .61 for the Vocational/Technical subscale, and .76 for the College subscale.

Vocational Outcome Expectation (VOE; McWhirter et al., 2000). The VOE is a six-item scale that measures outcome expectation related to career. A sample item is "My career planning will lead to a satisfying career for me." Responses on the items are rated on a 4-point scale, with 1 = *strongly disagree* to 4 = *strongly agree.* The VOE was normed on urban high school students. It has also been used in previous studies with high school students from diverse racial backgrounds (Kenny et al., 2003; McWhirter et al., 2000). Alpha coefficients reported in previous

studies ranged from .83 (McWhirter et al., 2000) to .85 (Kenny et al., 2003). In the current study, the alpha coefficient was .81.

Translation of Instruments

All of the materials (consent forms, instructions, and instruments) were available in simplified Chinese characters (commonly used in Mainland China) and traditional Chinese characters (commonly used in Hong Kong and Taiwan). A well-established back-translation method (Bravo, Woodbury-Farina, Canino, & Rubio-Stipec, 1993; Brislin, 1980) was used. The translation team was composed of two independent translators (one for translation and one for back translation) and a bilingual committee (three individuals in addition to the two independent translators). Both translators were experienced in translation and back translation of surveys from English to Chinese and vice versa. Translators and the bilingual committee engaged in discussions about translation techniques, difficulties, and potential biases in weekly meetings. The bilingual committee, including the first author of this study, confirmed the accuracy of the translation in terms of intention of meaning. In addition, the bilingual committee also ensured that the scales were translated into simple language understandable to youths and appropriate to Mainland China's cultural context.

Procedure

All of the data collection took place in one school in New York City. The researcher (second author) received permission from the principal and school district to disseminate survey packets during one academic class period. A bilingual research assistant was available in each classroom during the administrations to answer any questions. Participants were given the option of completing either English or Chinese surveys (in either simplified or traditional characters). The majority (n = 267) selected simplified Chinese, whereas 19 participants selected traditional Chinese. Twenty (6.3%) students selected English surveys.

Each question in the survey packet was read out loud in Mandarin to the students to ensure that each item was completed and to protect against differences related to reading proficiencies. This is a commonly used procedure with high school students (see Luthar, Shoum, & Brown, 2006). All students (100%) agreed to complete the survey. A total of 315 surveys were collected from 15 classes over a 2-week period. Surveys excluded from data analyses were (a) surveys filled out by non-Chinese students (n = 20), (b) students not born in Mainland China (n = 10), (c) students who had been in the United States for more than 5 years (n = 11), and (d) surveys that were incomplete (n = 9).

Data Analysis

Pearson correlation coefficients were calculated to determine relationships between the study's variables. In this study, a medium effect size was desired at the $p < .05$ level, with a level of power at .95 (Cohen, 1988). A series of t-test analyses were conducted to assess any potential differences in the study's variables based on demographic information and the language of the survey. Simultaneous regression analyses were performed as the primary analysis of the study.

Results

The *t*-test analyses revealed no differences based on language of the survey and employment status on the study's variables. A correlation matrix of the study's variables is provided in Table 1. The p value was adjusted to $p < .001$ to accommodate the large number of correlations by dividing the set p value ($p < .05$) by the number of correlations (Cohen, 1988). Results of the correlation analysis (see Table 1) indicated that age was not significantly related to the criterion variables. Length of U.S. residency (in months) was significantly and negatively associated with career-related instrumental assistance ($r = -.23$, $p < .001$).

Intercorrelations among the predictor and criterion variables revealed that reported English fluency was significantly and positively associated with vocational and educational aspirations ($r = .34$, $p < .001$) and plans to go to college ($r = .26$, $p < .001$). However, self-reported English fluency was significantly and negatively associated with plans to work after high school ($r = -.23$, $p < .001$). Perceptions of educational barriers were significantly and negatively associated with vocational outcome expectations ($r = -.22$, $p < .001$). Overall career-related parental support was significantly and positively associated with plans to attend college after high school ($r = .21$, $p < .001$). Career-related instrumental assistance from parents was positively and significantly correlated with plans to attend college ($r = .20$, $p < .001$). Career-related verbal encouragement was found to be positively and significantly associated with educational and vocational aspirations ($r = .25$, $p < .001$) and plans to attend college after high school ($r = .26$, $p < .001$).

Five simultaneous regression analyses were conducted to determine the significance of each predictor variable on vocational/educational aspirations, work plans, vocational/technical plans, college plans, and vocational outcome expectations (see Tables 2 and 3). In the regression analyses, only the CRPSS total score was used because the subscales were highly correlated (see Table 1) and, hence, would not demonstrate a unique contribution to the prediction of the dependent variables (Wampold & Freund, 1987). The Bonferroni correction is a statistical adjustment calculated to account for multiple comparisons. Because we tested five regression models, the p value was adjusted to .01 (.05/5 [Cohen, 1988]).

The findings (see Table 2) indicated that the model was significant in predicting vocational and educational aspirations in the sample, $F(4, 234) = 13.67$, $p < .001$, and accounted for 18.9% (adjusted $R^2 = .18$) of the variance in vocational/educational aspiration (see Table 2). Self-reported English fluency and total career-related parental support were found to be significant unique predictors of vocational and educational aspirations.

The results in Table 2 also indicated that the model was significant in predicting vocational outcome expectations, $F(4, 255) = 5.84$, $p < .001$, and accounted for 8.4% (adjusted $R^2 = .07$) of the variance in vocational outcome expectation scores. Specifically, the concept perceptions of barriers was found to predict vocational outcome expectations.

For the remaining analyses, the predictor variables were entered into a simultaneous regression with the following criterion variables: plans to work, plans to pursue vocational/technical training, and plans to go to college. These three regression analyses are presented together in Table 3.

TABLE 1

Intercorrelations of Demographic Variables and the Study's Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Age	—	.32	.19	.01	.07	.01	−.06	.08	−.04	−.03	−.01	.02	−.05	−.03	−.03
2. Length of U.S. residency		—	.21	.00	−.03	−.22	−.23***	−.10	−.16	−.21	−.03	−.06	.05	−.03	−.02
3. English fluency			—	−.12	.11	−.07	−.11	.00	.00	−.10	.17	.34***	−.23***	−.14	.26***
4. PEB				—	−.04	−.11	−.15	.05	−.17	−.10	−.22***	−.10	.17	.03	−.13
5. PVM-Achievement					—	.03	−.06	.07	.10	−.04	.03	.20	−.10	−.15	.17
6. CRPSS-Total						—	.80***	.70***	.76***	.87***	.17	.20	−.07	.12	.21***
7. CRPSS-IA							—	.32***	.49***	.70***	.18	.10	.02	.19	.20***
8. CRPSS-CM								—	.34***	.42***	.04	.13	−.04	.04	.08
9. CRPSS-VE									—	.66***	.19	.25***	−.12	.04	.26***
10. CRPSS-ES										—	.17	.17	−.03	.10	.14
11. VOE											—	.09	−.19	−.13	.25***
12. VEAC												—	−.36***	−.05	.56***
13. VEES-WK													—	.20***	−.50***
14. VEES-VT														—	−.02
15. VEES-COL															—

Note. PEB = Perceptions of Educational Barriers; PVM-Achievement = Parent Values Measure–Personal Achievement subscale; CRPSS-Total = Career-Related Parent Support Scale total score; CRPSS-IA = Career-Related Parent Support Scale–Instrumental Assistance subscale; CRPSS-CM = Career-Related Parent Support Scale–Career-Related Modeling subscale; CRPSS-VE = Career-Related Parent Support Scale–Verbal Encouragement subscale; CRPSS-ES = Career-Related Parent Support Scale–Emotional Support subscale; VOE = Vocational Outcome Expectation; VEAC = Vocational/Educational Aspirations Checklist; VEES-WK = Vocational/Educational Expectations Scale–Work subscale; VEES-VT = Vocational/Educational Expectations Scale–Vocational/Technical subscale; VEES-COL = Vocational/Educational Expectations Scale–College subscale.

***$p < .001$.

TABLE 2

Summary of Simultaneous Multiple Regression Analyses for the Effects of Variables Predicting Vocational/Educational Aspiration (n = 238) and Vocational Outcome Expectation (n = 259)

	Vocational/Educational Aspiration			Vocational Outcome Expectation		
Predictor	***B***	***SE B***	β	***B***	***SE B***	β
1. English fluency	0.29	.05	.33**	0.22	.09	.16
2. PEB	−7.93	.01	−.05	−4.66	.02	−.18**
3. CRPSS-Total	0.83	.23	.22**	0.82	.35	.14
4. PVM-Achievement	0.19	.07	.15	−3.40	.11	−.02

Note. PEB = Perceptions of Educational Barriers; CRPSS-Total = Career-Related Parent Support Scale total score; PVM-Achievement = Parent Values Measure–Personal Achievement subscale.
**$p < .01$.

Results indicated that the model was significant in predicting plans to work, $F(4, 253) = 5.19$, $p < .001$, and accounted for 7.6% (adjusted $R^2 = .06$) of the variance in work plans scores. Self-reported English fluency was found to be predictive of plans to work after high school.

Regression analysis results indicated that the model was not significant in predicting plans to pursue vocational/technical training (see Table 3). The model was significant in predicting plans to go to college, $F(4, 254) = 10.32$, $p < .001$, and accounted for 14% (adjusted $R^2 = .13$) of the variance (see Table 3). Self-reported English fluency and total career-related parental support were found to be predictive of plans to go to college after high school.

Discussion

The current research examined how individual and familial factors influenced the career aspirations; plans; and outcome expectations of urban, Chinese immigrant youths. We found that higher self-reported English language fluency and career-related support from parents predicted

TABLE 3

Summary of Simultaneous Multiple Regression Analyses for the Effects of Variables Predicting Work Plans (n = 257), Vocational/Technical (VT) Plans (n = 258), and College Plans (n = 258)

	Vocational/Educational Plans								
	Work Plans			VT Plans			College Plans		
Predictor	***B***	***SE B***	β	***B***	***S EB***	β	***B***	***SE B***	β
1. English fluency	−0.17	.05	−.20**	−8.62	.05	−.10	0.23	.06	.25**
2. PEB	−2.19	.01	.14	4.05	.01	.03	−1.49	.01	−.09
3. CRPSS-Total	−0.22	.22	−.06	0.42	.22	.12	−0.32	.23	−.21**
4. PVM-Achievement	−7.40	.07	−.06	−0.17	.07	−.14	0.16	.07	.13

Note. PEB = Perceptions of Educational Barriers; CRPSS-Total = Career-Related Parent Support Scale total score; PVM-Achievement = Parent Values Measure–Personal Achievement subscale.
**$p < .01$.

higher career and educational aspirations. Similarly, higher English language fluency and career-related parental support predicted students' plans to go to college. Lower English language fluency predicted plans to work immediately after high school. Last, students' perceptions of educational barriers predicted negative attitudes toward their future. Parental value on achievement was not a significant predictor of career aspirations, plans, and vocational outcome expectations.

Consistent with our first hypothesis, perceived educational barriers predicted negative future attitudes. Previous literature suggests that the barriers perceived by urban youths become internalized into their belief system and, therefore, have an impact on how they think about their future options (Kenny et al., 2003). It is likely that the students in our study perceived barriers associated with their immigration status and fewer job opportunities available to them (Chung & Bemak, 2006). In particular, barriers may also be linked to a fear of discrimination due to their ethnic minority status (Yeh et al., 2005), which may affect their educational goals and attitude toward their future.

Contrary to our first hypothesis, perceptions of barriers were not associated with aspirations or plans to go to college. Sue and Okazaki's (1990) theory of relative functionalism suggests that Asian immigrants' perception of limited options for mobility provides incentive to improve their social status through educational means. This theory may help to explain why Chinese immigrant youths' negative future outlook had no effect on their aspiration and college plans.

Chinese immigrant students who reported higher levels of English language fluency had higher career and educational aspirations and were more likely to plan to go to college. It is likely that fluency in English may increase students' belief that they will be able to comprehend college-level materials, obtain better test scores, and research information about college requirements. English language fluency is also a strong indicator of acculturation level (Mouw & Xie, 1999) and of immigrants' perceived social distance to mainstream society (Tong, 1996). Immigrants who believe they belong in mainstream culture tend to see themselves as integrated with the larger society, which includes future employment opportunities (Tong, 1996).

Students who perceived themselves as less fluent in English were more likely to plan to work immediately after high school. Linguistic barriers are usually the first challenge that Asian immigrants face (Chow, 1999). Students with less perceived English language fluency may believe they have fewer options in terms of school and work because their parents may have experienced barriers to professional occupations during immigration (Chow, 1999; Ong & Umemoto, 1994). Hence, immigrant youths may plan to work immediately after high school.

We also found that students who received career-related parental support were more likely to have higher aspirations and plans to go to college. Among the different types of parental support, instrumental assistance (i.e., teaching job-related skills) and verbal encouragement (i.e., encouraging youths to finish school) were especially associated with career aspirations and plans to attend college. This finding is consistent with previous research demonstrating the positive effects of career-related parental support among school-age youths (Turner & Lapan, 2002). Moreover, among Chinese immigrants

(Okubo, Yeh, Lin, Fujita, & Shea, 2007), and with Asian Americans more generally (Leong & Serafica, 1995), career decisions cannot be separated from the family context. Specifically, factors such as family reputation and respecting parents' wishes are linked to Chinese immigrant youths' decisions and aspirations (Okubo et al., 2007).

Additionally, students who have lived in the United States for a longer period of time received less practical assistance from their parents. These students have been learning and practicing English in school, whereas their immigrant parents work in the ethnic economy with very limited opportunities to learn or practice English. Hence, these immigrant youths take on more responsibilities at home, such as paying bills, answering phone calls, and interpreting for their parents. Hernandez and McGoldrick (1999) contended that it is common for immigrant children to be "culture brokers" (p. 178) for their parents to help their parents negotiate life in the United States. In other words, these immigrant youths are providing more assistance to their parents than their parents can provide to them.

Contrary to our fourth hypothesis, parental value on achievement did not predict Chinese immigrant youths' career aspirations, plans, and outcome expectations. This finding highlights the fact that there are many intervening individual and contextual variables related to immigrant youths' plans that extend beyond Asian cultural values. Although numerous researchers have underscored the Asian priority placed on educational and career success (see Tseng et al., 2007, for a review), parental value on achievement does not solely explain youths' actual aspirations, plans, and expectations. In fact, low-income youths may believe that immediate financial obligations to the family outweigh future vocational options (Shea, Ma, & Yeh, 2007). Our use of a developmental contextual framework also emphasizes the role of limited English language fluency and perceptions of barriers in lowering career aspirations, plans, and expectations.

Limitations and Future Directions

Future research directions relate specifically to the study's limitations. Our data were collected at one high school, located in New York City, and with a specific ethnic group (Chinese immigrants from Mainland China). In addition, the participants in this study attended a school where the majority of the students were also Chinese immigrants. It is likely that Asian immigrant youths who attend racially diverse or predominantly White schools may have different views on their educational and career aspirations and plans. Because of the specificity of our sample, generalizability to other Asian immigrant groups is cautioned. Future research should investigate the experiences of other Asian ethnic groups to assess the cultural applicability of the developmental contextual framework. Future investigations should also critically examine the role of socioeconomic status and cultural values on Asian immigrant youths' career development.

In terms of methodological limitations, our investigation relied on paper-and-pencil measures, which are limited in their cross-cultural construct validity. In fact, there were almost no measures that had been validated for this particular group. The VEES was originally developed and validated on rural, White American youths, which may explain the somewhat low reliability in the current study. Another contributor to the low reliability may be that each subscale had only two items. Future

research may benefit from qualitative methods of inquiry that would provide an in-depth understanding of immigrant youths' career planning and decision-making process (Okubo et al., 2007).

Career Counseling Implications

The findings of this study can be used to inform and develop culturally sensitive career counseling services for urban, Chinese immigrant youths. Specifically, counselors need to recognize the obstacles that Chinese immigrant youths face, which affect their attitude toward the future. Many career counselors may encourage clients to pursue their individual career interests—a mentality that ignores the influence of family, language barriers, and financial hardship among low-income Asian immigrants.

Counselors may collaborate with English as a second language (ESL) teachers to enhance career exploration and promote immigrant students' English language fluency. For example, ESL teachers may include college application essays and résumés as part of their writing exercises and assignments. Teachers may also use college brochures or newspaper job announcements as part of their reading comprehension material. It may also be helpful to teach common job or college application terminology or phrases that students are likely to encounter. Additionally, counselors and ESL teachers may set up mock job interviews to help students practice expressing themselves in English and to practice appropriate etiquette in an interview setting (Shea et al., 2007).

School counselors should also work with parents and educate them about different types of educational and career opportunities available in the United States. For example, a counselor may use parent–teacher meetings to distribute information on financial aid and college admissions so that parents can get involved in the career development process and provide assistance for their children. This information should be provided in Chinese and during hours that are convenient for working parents.

To help the students feel more positive about their future, schools and youths service agencies may also design mentoring programs linking immigrant students with role models who are also immigrants. These mentors should be immigrants who are successful in a variety of fields of work. High schools should also organize college workshops and invite alumni to come back and share their experiences about the application process and college life. Such programs offer support to students that extend beyond what their parents may be able to provide.

References

Barratt, M. F., & Huba, M. E. (1994). Factors related to international undergraduate student adjustment in an American community. *College Student Journal, 28*, 422–436.

Board of Education of the City of New York. (2000). *The class of 2000 four-year longitudinal report and 1999–00 event dropout rates.* Retrieved from http://schools.nyc.gov/Accountability/Reports/Data/Graduation/The_Class_of_2000_4Y_Graduation_and_Dropout_Report.pdf

Bravo, M., Woodbury-Farina, M., Canino, G. I., & Rubio-Stipec, M. (1993). The Spanish translation and cultural adaptation of the Diagnostic Interview Schedule for Children (DISC) in Puerto Rico. *Culture, Medicine and Psychiatry, 17*, 329–344.

Brislin, R. W. (1980). Translation and content analysis of oral and written material. In H. C. Triandis & J. W. Berry (Eds.), *Handbook of cross-cultural psychology: Vol. 2. Methodology* (pp. 389–444). Boston, MA: Allyn & Bacon.

Chow, J. (1999). Multiservice centers in Chinese American immigrant communities: Practice principles and challenges. *Social Work, 44,* 70–81.

Chung, R. C., & Bemak, F. (2006). Asian immigrants and refugees. In F. T. L. Leong, A. G. Inman, A. Ebreo, L. H. Yang, L. Kinoshita, & M. Fu (Eds.), *Handbook of Asian American psychology* (2nd ed., pp. 227–244). Thousand Oaks, CA: Sage.

Citizens Committee for Children of New York. (2005). *Keeping track of children in New York City.* Retrieved from http://www.cccnewyork.org/Web%20Graphics/asianchildren.pdf

The Coalition for Asian American Children and Families. (2001). *Education and New York's Asian American children.* Retrieved from http://www.cacf.org/resources_factsheets.html

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.

Cross, S. E. (1995). Self-construals, coping, and stress in cross-cultural adaptation. *Journal of Cross-Cultural Psychology, 26,* 673–697.

DeCarlo, L. T., & Luthar, S. S. (2000). Analysis and class validation of a measure of parental values perceived by early adolescents: An application of a latent class model for rankings. *Educational & Psychological Measurement, 60,* 578–591.

Ferry, T. R., Fouad, N. A., & Smith, P. L. (2000). The role of family context in a social cognitive model for career-related choice behavior: A math and science perspective. *Journal of Vocational Behavior, 57,* 348–364.

Fitzgerald, L. F., & Betz, N. E. (1994). Career development in cultural context: The role of gender, race, class and sexual orientation. In M. L. Savickas & R. W. Lent (Eds.), *Convergence in career development theories: Implications for science and practice* (pp. 103–117). Palo Alto, CA: Consulting Psychologists Press.

Hernandez, M., & McGoldrick, M. (1999). Migration and the life cycle. In B. Carter & M. McGoldrick (Eds.), *The expanded family life cycle: Individual, family, and social perspectives* (pp. 169–184). Needham Heights, MA: Allyn & Bacon.

Kenny, M. E., Blustein, D. L., Chaves, A., Grossman, J. M., & Gallagher, L. A. (2003). The role of perceived barriers and relational support in the educational and vocational lives of urban high school students. *Journal of Counseling Psychology, 50,* 142–155.

Leong, F. T. L., & Hardin, E. E. (2002). Career psychology of Asian Americans: Cultural validity and cultural specificity. In G. C. N. Hall & S. Okazaki (Eds.), *Asian American psychology: The science of lives in context* (pp. 131–152). Washington, DC: American Psychological Association.

Leong, F. T. L., & Serafica, F. C. (1995). Career development of Asian Americans: A research area in search of good theory. In F. T. L. Leong (Ed.), *Career development and vocational behavior of racial and ethnic minorities* (pp. 67–102). Hillsdale, NJ: Erlbaum.

Loo, C. M. (1998). *Chinese America: Mental health and quality of life in the inner city.* Thousand Oaks, CA: Sage.

Louie, V. (2001). Parents' aspirations and investment: The role of social class in the educational experiences of 1.5- and second-generation Chinese Americans. *Harvard Educational Review, 71,* 438–474.

Luthar, S., & Becker, B. E. (2002). Privileged but pressured? A study of affluent youth. *Child Development, 73,* 1593–1601.

Luthar, S. D., Shoum, K. A., & Brown, P. J. (2006). Extracurricular involvement among affluent youth: A scapegoat for 'ubiquitous achievement pressures'? *Developmental Psychology, 42,* 583–597.

Ma, P.-W. W., & Yeh, C. J. (2005). Factors influencing the career decision status of Chinese American youths. *The Career Development Quarterly, 53,* 337–347.

McWhirter, E. H. (1997). Perceived barriers to education and career: Ethnic and gender differences. *Journal of Vocational Behavior, 50,* 124–140.

McWhirter, E. H., Hackett, G., & Bandalos, D. L. (1998). A causal model of the educational plans and career expectations of Mexican American high school girls. *Journal of Counseling Psychology, 45,* 166–181.

McWhirter, E. H., Rasheed, S., & Crothers, M. (2000). The effects of high school career education on social-cognitive variables. *Journal of Counseling Psychology, 47,* 330–341.

McWhirter, E. H., Torres, D. M., Salgado, S., & Valdez, M. (2007). Perceived barriers and postsecondary plans in Mexican American and White adolescents. *Journal of Career Assessment, 15,* 119–138.

Mouw, T., & Xie, Y. (1999). Bilingualism and the academic achievement of first and second generation Asian Americans: Accommodation with or without assimilation? *American Sociological Review, 64,* 232–252.

Okubo, Y., Yeh, C. J., Lin, P.-Y., Fujita, K., & Shea, J. M.-Y. (2007). The career decision-making process of Chinese American youth. *Journal of Counseling & Development, 85,* 440–449.

Ong, P., & Umemoto, K. (1994). Life and work in the inner-city. In P. Ong (Ed.), *The state of Asian Pacific America: Economic diversity, issues & policies* (pp. 87–112). Los Angeles, CA: Leadership Education for Asian Pacifics.

Rasheed, S. (2001). *Prediction of post secondary plans for rural Appalachian youth* (Doctoral dissertation). Available from ProQuest Digital Dissertations and Theses database. (UMI No. 3024527)

Shea, M., Ma, P.-W. W., & Yeh, C. J. (2007). Development of a culturally specific career exploration group for urban Chinese immigrant youth. *The Career Development Quarterly, 56,* 62–73.

Sue, S., & Okazaki, S. (1990). Asian American educational achievements: A phenomenon in search of an explanation. *American Psychologist, 45,* 913–920.

Tong, V. (1996). Home language literacy and the acculturation of recent Chinese immigrant students. *The Bilingual Research Journal, 20,* 523–543.

Trueba, H. T., Cheng, L., & Ima, K. (1993). *Myth or reality: Adaptive strategies of Asian Americans in California.* Washington, DC: Falmer Press.

Tseng, V., Chao, R. K., & Padmawidjaja, I. A. (2007). Asian Americans' educational experiences. In F. T. L. Leong, A. G. Inman, A. Ebreo, L. H. Yang, L. Kinoshita, & M. Fu (Eds.), *Handbook of Asian American psychology* (2nd ed., pp. 227–244). Thousand Oaks, CA: Sage.

Turner, S. L., Alliman-Brissett, A., Lapan, R. T., Udipi, S., & Ergun, D. (2003). Career-Related Parent Support Scale. *Measurement and Evaluation in Counseling and Development, 36,* 83–94.

Turner, S., & Lapan, R. T. (2002). Career self-efficacy and perceptions of parent support in adolescent career development. *The Career Development Quarterly, 51,* 44–55.

U.S. Department of Homeland Security. (2006). *2005 yearbook of immigration statistics.* Retrieved from http://www.dhs.gov/xlibrary/assets/statistics/yearbook/2005/OIS_2005_Yearbook.pdf

Vondracek, F. W., Lerner, R. M., & Schulenberg, J. E. (1986). *Career development: A life-span developmental approach.* Hillsdale, NJ: Erlbaum.

Wampold, B. E., & Freund, R. D. (1987). Use of multiple regression in counseling psychology research: A flexible data-analytic strategy. *Journal of Counseling Psychology, 34,* 372–382.

Yeh, C. J. (2003). Age, acculturation, cultural adjustment and mental health symptoms of Chinese, Korean, and Japanese immigrant youth. *Cultural Diversity and Ethnic Minority Psychology Journal, 9,* 34–48.

Yeh, C. J., & Inose, M. (2003). International students' reported English fluency, social support satisfaction, and social connectedness as predictors of acculturative stress. *Counseling Psychology Quarterly, 16,* 15–28.

Yeh, C. J., Ma, P.-W., Madan, A., Hunter, C. D., Jung, S., Kim, A., . . . Sasaki, K. (2005). The cultural negotiations of Korean immigrant youth. *Journal of Counseling & Development, 83,* 172–181.