ABSTRACT

Title of Thesis: FACTORS INFLUENCING THE ACADEMIC

EXPERIENCES OF VIETNAMESE ADOLESCENTS: THE ROLE OF PSYCHOSOCIAL VARIABLES.

SUPPORT, AND INTERGENERATIONAL CONFLICT

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Individual (gender, self-esteem, and acculturation), microsystem (social support, peer support for academics, perceived parental attitudes), and mesosystem (intergenerational conflict) variables were examined as predictors of school sense of belonging and academic attitudes among a sample of 159 Vietnamese adolescents living in Montgomery County, Maryland. Overall, these students experienced moderate levels of school belonging and strong valuing of academics. Individual and microsystem level variables accounted for significant shared and unique variance in the prediction of school sense of belonging and adolescent academic attitudes. The mesosystem variable did not account for unique variance above and beyond the individual and microsystem variables. Self-esteem and peer support for academics accounted for significant unique variance in the prediction of school belonging, whereas gender, parental value for academic success, and school social support uniquely contributed to the prediction of academic attitudes. Suggestions for interventions and ideas for future research are discussed.

FACTORS INFLUENCING THE ACADEMIC EXPERIENCES OF VIETNAMESE ADOLESCENTS: THE ROLE OF PSYCHOSOCIAL VARIABLES, SUPPORT, AND INTERGENERATIONAL CONFLICT

by

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INTRODUCTION

An adolescent's academic achievement and attainment are related to her or his future career choices and income (Arbona, 2000). Academic achievement might be of particular importance to immigrant families as it serves as the major vehicle for overcoming obstacles to success in American society. Vietnamese families tend to strongly emphasize academic success for their children, which may contribute to increased stress and mental health problems among Vietnamese adolescents (Kibria, 1993). Little research has examined the factors related to academic success among Vietnamese adolescents. Therefore, the purpose of this study was to apply Bronfenbrenner's (1977) ecological theory to learn more about Vietnamese adolescents, a group rarely studied in psychology. Specifically, this study examined the contributions of psychosocial variables, support, and intergenerational conflict in predicting academic attitudes and identification with school among Vietnamese adolescents.

Academic variables, such as educational goals, commitment, personal value, and achievement were important to study because these variables relate to a number of psychosocial and adaptive factors. For example, academic achievement and attainment were found to relate to self-esteem (Chapell & Overton, 2002; Davies & Brember, 1999) and mental health (Lin, 2002). On the other hand, poor school performance was found to relate to parent-child conflicts (Spencer, Cole, & Dupree, 1993), and dissatisfaction with school performance was related to depression, anxiety and social stress (Zhou, Peverly, Xin, Huang, & Wang, 2003). Academic achievement is particularly important for survival in the American economy in that academic success relates to enhanced career

opportunities and increases earnings, thus increasing one's likelihood of avoiding or escaping poverty.

Vietnamese Adolescents and Academics

Vietnamese adolescents might experience particularly high levels of pressure to succeed academically. Recent immigrants from Vietnam tend to settle in the United States in hopes of a higher quality of life than that which they left in Vietnam (Kibria, 1993). The main method for attaining this desired goal is to invest in the education of their children in hopes that their children's future success will elevate the family's economic standing and social status (Kibria, 1993). From an interview with a twelve-year-old Vietnamese American boy, Kibria (1993) reported that, "his academic failure threatened his family's fundamental rationale or purpose for migrating to the United States. He, like many other children, felt like the burden of the migration process rested on his shoulders—and specifically on his ability to do well at school" (p. 156). Although some Vietnamese children meet these academic demands, others become caught in a cycle of academic failures.

The academic failures of some Vietnamese children and adolescents might be related to the high poverty rate in the Vietnamese community. Thirty-four percent of Vietnamese immigrants live in poverty, as compared to the general U.S. population, in which there is a 10% poverty rate (Southeast Asia Resource Action Center, 1990). The mean wage for Vietnamese immigrants is \$17,500. Research suggested that social class is related to a number of academic variables, including educational expectations (Kao & Tienda, 1998; McWhirter, Hackett, & Bandalos, 1998; Wong 1990), and academic achievement (Chapell & Overton, 2002). Little research or literature discusses the

educational attainment of Vietnamese immigrants. Most research on recent immigrants has focused on adult immigrants, asylees and refugees and has neglected the experiences of their children (Portes & McLeod, 1996).

Research Limitations

Portes and McLeod (1996) suggested that educational trajectories represent the best measure of the adaptation of second generation immigrants. The authors argued that education is even more important than labor market outcomes in assessing progress. Yet, in assessing the adaptation of immigrants, much research has focused on their representation in the labor market and socioeconomic status (for example, Gold & Kibria, 1998).

Although a number of studies indicated that Asian Americans perform higher than other racial/ethnic groups in schools, some research problems may possibly bias the results for Asian American students. For example, when reading scores are assessed, often students who are deemed to have low English proficiency are excluded from the study. Thus, this procedure might greatly misrepresent the mean reading ability of the group (Hsia & Peng, 1998).

Another major problem in the literature is that most research examining Asian American educational experiences has been based on aggregated data. The data analyses conducted on multiple Asian ethnic groups are combined, so specific information for each group is lost (Southeast Asia Resource Action Center, 2002). This is problematic because studies looking at disaggregated data suggested that different Asian ethnic groups are adapting differently to life in the United States, with Southeast Asian immigrants struggling more than other Asian ethnic groups. For example, while 14% of

Asian Americans on the whole are living in poverty, 34% of Vietnamese immigrants live in poverty (Southeast Asia Resource Action Center, 1990). Additionally, the mean wage and salary of Asian Americans in general is \$22,579, while the average wage and salary for Vietnamese immigrants is \$17,590 (Southeast Asia Resource Action Center, 1990). Some research that disaggregated the data according to ethnicity has found academic achievement among Asian Americans to be diverse and best represented as a bimodal distribution (Gloria & Ho, 2003). More specifically, while Chinese, Japanese, and Korean American students on average have higher levels of achievement than European, African, Hispanic, and Native Americans, this is not true for other Asian ethnic groups. Southeast Asian, Filipino, and Pacific Islander Americans on average perform significantly lower than their Chinese, Japanese, and Korean American counterparts (Gloria & Ho, 2003). In fact, among Vietnamese, Laotian, and Cambodians living in the United States, only 10% of men and 4% of women had college degrees in 1990 (Okagaki & Bojczyk, 2002). This is in contrast to about 30% or more of other Asian Americans (Okagaki & Bojczyk, 2002).

The purpose of this study was threefold. The first purpose was to learn more about a sample of individuals rarely studied in psychology, Vietnamese immigrant adolescents, in hopes of adding to the literature and developing a more comprehensive understanding of their experiences. The second purpose of this study was to examine the relationships between psychosocial variables, support variables, and intergenerational conflict, as they occur in the lives of Vietnamese immigrant adolescents. The final purpose of this study was to investigate the contributions of psychosocial variables, support, and intergenerational conflict on educational expectations and attitudes, as well

as on school sense of belonging. These dependent variables were selected because they relate strongly to academic achievement (Gutman, 1998; Roeser, Midgley, & Urdan, 1996). We hope to use the findings from this study to inform academic services as well as to create innovative interventions to enhance the academic and vocational achievement of Vietnamese adolescents.

Theoretical Basis

To understand the variations in academic achievement of students, Bronfenbrenner's (1977) ecological model was applied, and student achievement was conceptualized within the multiple contexts in which they operate. Bronfenbrenner (1977) proposed conceptualizing human development as occurring through the interactions between the person and the various, changing environments within they reside. More specifically, the ecological model views the individual as operating within various environmental systems, with each system occurring within a larger one. The systems are called the microsystem, mesosystem, exosystem, and macrosystem (see Figure 1). In the individual level, psychological (e.g., mental health, ability, acculturation), and demographic (e.g., gender, race) variables are located within the individual, and are brought into their interactions with others. In this study, individual factors include psychosocial and demographic variables such as grade level, academic performance, gender, self-esteem, and acculturation. All of these variables are theorized to impact, and be affected by, many other factors in a Vietnamese immigrant adolescent's life.

The microsystem describes the relationship between the individual and their immediate environments, such as school, home, and community. For a Vietnamese

immigrant student, it may be important to assess the amount and type of support received from their extended and immediate family, peers, and community; and their perception of their peers and parents' attitudes towards achievement.

The mesosystem describes the relationships and conflicts occurring for the individual between their different microsystems. Intergenerational conflict, defined as conflicts occurring between the individual and their family on life and educational issues, is largely cited as important to the lives of Vietnamese immigrants (Kwak, 2003; Kwak & Berry, 2001).

The exosystem describes the broader, systemic influences on an individual's life. For a Vietnamese immigrant adolescent, these influences may include social class, immigration laws or wave of immigration. Each wave is characterized by the types of resources immigrants bring with them as well as the circumstances surrounding their emigration.

The macrosystem is the individual's relationship to their broader social/cultural "blueprints" that organize their life. For a Vietnamese immigrant adolescent, their macrosystem includes xenophobia and racism, model minority myths, and the urban education system.

Individual factors

This study assessed three individual psychological variables including gender, self-esteem, and acculturation on academic attitudes and school sense of belonging. The relationship of these variables to other levels of the individual's microsystem, mesosystem, and exosystem also was examined.

Gender

Research comparing the academic achievement of Asian American women and men produced conflicting findings. Some findings supported a gender difference in the rates and levels of educational attainment achieved (Brandon, 1991), while others reported no differences in schooling progress between genders (Grant & Rong, 1999). There were conflicting findings on whether women or men attain higher education levels, and who achieves more quickly (Brandon, 1991; Hune & Chan, 1997). *Self-esteem*

Self-esteem has been found to relate to academic performance among White American, Black American, and Latino samples (Chapell & Overton, 2002; Filozof, Albertin, Jones, Sterne, Myers, & McDermott, 1998; Spencer et al., 1993; Trusty & Peck, 1994; Wiggins & Schatz, 1994). Although a relationship between self-esteem and academic achievement has been found consistently, the causal direction of the relationship remains unclear. While some researchers suggested that self-esteem predicted academic achievement (Spencer et al., 1993), others found that academic achievement predicted self-esteem (Filozof et al., 1998).

Acculturation

Acculturation can be defined as both a group level and an individual level process of adaptation when confronted by a dominant culture. Theorists have conceptualized acculturation in a variety of ways and no consistent definition currently exists in the literature. Many researchers have measured acculturation as occurring through language, identity, and/or behavior (Birman & Trickett, 2001; Nguyen, Messe, & Stollak, 1999). Empirical research yielded mixed findings regarding the relationship between

acculturation and academic performance. Some research suggested that no relationship existed between acculturation and academic achievement (Lese & Robbins, 1994), while other research found adoption of certain parts of American culture and adherence to specific parts of one's culture of origin to be related to academic achievement (Bankston & Zhou, 1997; Birman, Trickett, & Vinkokurov, 2002).

Microsystem factors

In this study, students perceptions of their parents and peers attitudes towards academics was assessed for its relationship to the student's academic attitudes and sense of belonging in school. Specifically, the students perceptions of their parents' value of academic success, academic expectations, and educational aspiration, as well as peer support for academics was examined for its relationship to the dependent variables. The amount and source of social support students received also was assessed for their correlations with academic attitudes and school sense of belonging. Social support will be defined to include members of the individuals' immediate and extended family, peers, school officials, and community members.

Social support

Parental support and involvement in school positively related to academic achievement of adolescents and college students (Bean, Bush, McKenry, & Wilson, 2003; Bhattacharya, 2000; Centrie, 2000; Fisher & Padmawidjaja, 1999; Steinberg, Dornbusch, & Brown, 1992). This relationship seemed to be stronger among Asian American adolescents than White Americans (Asakawa, 2001). Furthermore, parents seemed to be the most important influence in students' long-term educational plans (Steinberg, et al., 1993). Specifically, adolescents who perceived higher levels of support

from family, siblings, and others within their environment maintained more positive attitudes about the value of school and their fit in the school environment and reported that they were more likely to do homework, go to class, and pay attention in class (Bankston, 1998; Kenny, Blustein, & Chavez, 2003).

Peer attitudes

The literature consistently reported that peers were influential in shaping individual students' academic attitudes and behaviors (Azmitia & Cooper, 2001; Gloria & Ho, 2003; Ryan, 2001; Steinberg et al., 1993; Tucker, Herman, Pedersen, Vogel, & Reinke, 2000). Upon examining academic behaviors more closely, it appeared that peer attitudes correlated with individual expectations, motivation, and values towards school (Goodenow & Grady, 1993). One study found no differences between the racial groups represented (Azmitia & Cooper, 2001) while the other found that Asian American students tended to have high peer support for education (Steinberg et al., 1993). One study found that although peer attitudes and academics were related, peer attitudes did not predict academic achievement (Fuligni, 1997).

Parental expectations

Traditional Asian values hold academic achievement in high esteem (Kibria, 1997). Research has found that parental expectations were related to their children's academic achievement (Goldenberg, Gallimore, Reese, & Garnier, 2001; Kaplan, Xiaoru, & Kaplan, 2001). A question remains regarding the causality of the relationship between parental expectations and children's academic achievement. There is some support that parental expectations might arise as a result of student academic performance, rather than vice versa (Goldenberg et al., 2001).

Mesosystem factors

The mesosystem describes the relationships and conflicts occurring between microsystems. Intergenerational conflict was the mesosystem variable examined in this study. Intergenerational conflict was defined as conflict occurring between two generations. In this study, intergenerational conflict referred to tension related to educational issues that occurs between Vietnamese adolescents and their parents' generation. The relationship between intergenerational conflict and academics was assessed.

Vietnamese immigrant families were found to exhibit more intergenerational conflict than other racial groups (Phinney, Ong, & Madden, 2000). Intergenerational conflict related to a number of negative health and adaptive outcomes, including gender role dissatisfaction (Rosenthal, Ranieri, & Klimdis, 2001), depression (Hovey & King, 1996), low self-esteem (Portes & Zady, 2002), and suicidality (Lau, Jernewall, Zane, & Myers, 2002). There are no studies on the relationship between intergenerational conflict and academic achievement.

Exosystem factors

The exosystem describes the broader, systematic influences on an individual's life. For a Vietnamese adolescent, these influences include social class, social support services and research on Vietnamese adolescents, their educational background in Vietnam, and immigration laws. Exosystem factors will be considered but not directly assessed in this study.

Macrosystem factors

The macrosystem describes the broader social/cultural "blueprints" organizing life. For a Vietnamese adolescent, their macrosystem includes xenophobia and racism, the model minority myth, and the urban education system. The macrosystem was considered, but not measured in this study.

Dependent variables

The dependent variables that were examined included adolescent attitudes towards education and school sense of belonging. These variables were chosen because they relate strongly to academic achievement (Gutman, 1998; Roeser et al., 1996). Both of these variables can be considered individual level variables.

School sense of belonging

Steele (1997) asserted that school identification is necessary for academic success. Racism and discrimination, economic disadvantages, and gender stereotypes can negatively impact school identification, and academic performance. Eleven and a half percent of Vietnamese American students reported having felt that teachers discriminated against them (Southeast Asian Resource Action Center, 2002). Finn (1989) suggested that when students did not identify with and feel valued and respected by their schools, they disengaged academically. Research suggested that school sense of belonging related to academic achievement, motivation, persistence, expectations, and value regarding schoolwork (Anderman & Anderman, 1999; Goodenow & Grady, 1993).

Students' attitudes regarding education

Research findings suggested that academic expectations and academic attitudes were related to later academic performance (House 1995a, b, 1997; Singh, Granville, &

Dika, 2002; Fuligini, 1997). Achievement promoting behaviors were related to strong ethnic self-identification among Vietnamese students (Bankston & Zhou, 1995). Asian American students also tended to subscribe more strongly than their White peers to the belief that academics are related to their future goals (Asakwa & Csikszentmihalyi, 1998).

Conclusion

This investigation analyzed data from a larger study of the experiences of Vietnamese adolescents, their parents, and the elderly (Trickett & Birman, manuscript in preparation). Our study examined the factors that may correlate to the academic attitudes and school sense of belonging of Vietnamese adolescents in Maryland. The results from this study contribute to the research on academic achievement of underrepresented youth. Factors cited in the literature on academic achievement were studied in this context, as were variables specific to the experiences of Vietnamese adolescents. It is our hope that the findings from this investigation will be used to inform the development of an educational and vocational intervention for Vietnamese youth.

LITERATURE REVIEW

The purpose of this study was to examine the role of psychosocial factors, support, and intergenerational conflict in the academic experiences of Vietnamese adolescent youth. This literature review describes what is currently known about these variables and the relations among them. First, a summary of the literature on Vietnamese American youth related to school performance will be provided. School performance will be discussed rather than academic attitudes and school belonging because previous research has not examined these variables among Vietnamese adolescents. Second, a discussion of Bronfenbrenner's (1977) ecological theory will be presented. A discussion of individual level variables, including gender, self-esteem, and acculturation will follow, including a theoretical discussion and empirical overview of each variable. A similar review of theory and research on the microsystem level variables, including social support, parental expectations, and peer support will be presented next. After that, what is currently known about the mesosystem level variable, intergenerational conflict will be discussed as it functions in the lives of immigrant adolescents. Finally, a review of the literature regarding the dependent variables (e.g., school sense of belonging and academic attitudes) will be provided along with a presentation of the research examining their relations with academic performance.

Summary on Status of Vietnamese Adolescents in School

An understanding of the experiences of Asian Americans must acknowledge the presence of the Model Minority Myth—a powerful and pervasive stereotype of Asian Americans. The term "model minority" was first used during the civil right movements of the 60's by a sociologist, William Peterson, to describe the acculturation of Japanese and

Chinese communities to the United States. Peterson emphasized that unlike other minority groups, the Japanese's cultural values (e.g., work hard, importance of family) enabled them to overcome prejudices and succeed within the United States, unlike other minority groups (e.g., African-Americans), who were deemed "problematic" (Chin, 2001). Highlighting that Asian Americans had acculturated successfully into American society was a tactic used to undermine the argument made by civil rights activists that racial discrimination existed and served to oppress racial minorities in the United States. Yet, before the civil rights movement, Asian Americans in the United States were viewed as economic competition. Asian Americans were seen as a threatening group of people that would steal work from white Americans, and thus were referred to as the "Yellow Peril" (Yee, 1992). During World War II, Japanese Americans were viewed as the enemy, were discriminated against, and put in internment camps in the United States (Yee, 1992).

In the 1970's and 1980's, the term "Model Minority" became a stereotype perpetuated by media that was generalized to all Asian Americans, with one message being that all Asian Americans are the same in that they are all successful (Takaki, 1998). In 1984, President Ronald Reagan praised the success of Asian Americans, claiming that this group "preserves (the American) dream by living up to the bedrock values" of America, and are able to do so by maintaining "the sacred worth of human life, religious faith, community spirit and the responsibility of parents and schools to be teachers of tolerance, hard work, fiscal responsibility, cooperation, and love" (Yee, 1992). The stereotype assumed that the Asian American student was high achieving, and that the reasons for their success included intellectual superiority, family involvement and

support, and a strong desire to achieve (Yee, 1992). At the same time, Asian American students struggled with a long-lasting stereotype of being passive, not physically attractive, and perpetual foreigners (Pang & Chen, 1998).

Researchers have begun to discuss and document the effects of the Model Minority stereotype on Asian American students. Many researchers argued that the stereotype of the high achieving and successful student does not fit the reality of all Asian American students (Ima & Nidorf, 1998; Yee, 1992). The data used to support this myth is aggregated, and does not examine the experiences of specific Asian ethnic groups or of impoverished Asian Americans, or even at Asian American achievement in specific content areas (Ima & Nidorf, 1998). For example, some research suggested that Southeast Asian students who generally migrated more recently to the United States, and arrived under different circumstances than other Asian Americans, have more at-risk students, and need more assistance with English language development. These students tended to perform more poorly than other Asian American students on reading tests (Ima & Nidorf, 1998).

One consequence of the Model Minority myth was that the needs of these students continue to be overlooked and are not being addressed (Ima & Nidorf, 1998). A second issue is the effect of the stereotype on the mental health of Asian American students. Pang and Chen (1998) suggested that the model minority myth affects the self-concept of these students. Those who are not doing well may struggle with the consequences of not meeting the expectations held for them by society (Pang & Chen, 1998). Sue and Zane (1985) and Cheung (1986) found that the pressure to succeed had emotional consequences for Asian American college students. The researchers found that

anxiety was higher for these students who spent more time on schoolwork than their American counterparts. Other researchers found that depression and suicide was higher among Asian Americans (Chen, 1987).

Low English proficiency has been cited as one possible explanation as to why Southeast Asian students tended to do poorly in certain academic areas (Cheng, 1998). Generally, Vietnamese students performed below average in subjects that require English proficiency (Caplan, Choy, & Whitmore, 1992). One reason levels of English proficiency may be lower among Vietnamese students is because many of these students tend to live in ethnically homogenous communities, where few people speak English. This geographic homogeneity may limit their English proficiency and thus impact their educational success, aspirations and future career options (Hune & Chan, 1995).

The poorer academic performance of Vietnamese youth might be related to the adaptive strategies some students employ. Ima and Nidorff (1998) suggested that Vietnamese students living in urban areas may be acculturating more to street culture rather than the dominant culture. This relationship has yet to be studied, mostly due to the inadequacy of acculturation theories in accounting for this acculturative pattern. Instead, current theories of acculturation assume adaptation occurs between the culture of one's parent country and the dominant culture of the host culture. This view of acculturation might be oversimplifying a complicated process of adaptation.

Another important factor that might account for academic difficulties faced by

Vietnamese immigrant students relates to possible emotional and mental health concerns.

Many Vietnamese come to the United States as refugees, escaping dangerous and traumatic situations. Often, families are separated, with some people settling in the

United States in hopes that others will join them. Sometimes children and adolescents are sent by their families to the U.S. by themselves in hopes they will have a better life here. Felsman, Leong, Johnson, and Felsman (1990) found that Vietnamese adolescents experienced high rates of depression and anxiety and that these symptoms were experienced more greatly by unaccompanied minors. Recent Vietnamese immigrants come to the United States with few resources, including little money, few skills marketable in the U.S. labor force, and little knowledge and familiarity with the English language and American culture (Gold & Kibria, 1998). The circumstances surrounding their settlement in the United States were quite different from that of the larger Asian American populations (i.e., Chinese, Japanese, Korean), and thus their adjustment experiences might be different. Because of these differences, it is important to examine the experiences of Vietnamese immigrants separately from the experiences of other Asian American groups. This study planned to contribute information specifically about the academic experiences of Vietnamese adolescents.

Ecological Theory

Bronfenbrenner's (1977) ecological theory provided a useful framework for conceptualizing the experiences of Vietnamese adolescents. The field of counseling psychology has long recognized the importance of the person-environment interaction in understanding human development (Gelso & Fretz, 1992). Bronfenbrenner (1977) expanded the definition of the environment, and located the individual in the center of multiple systems. Each immediate setting exists within a larger system. The systems have a reciprocal relationship where they continue to shape and influence each other. The

individual develops and grows through dynamic interactions between itself and the systems.

Bronfenbrenner (1977) specified four concentric systems within which an individual develops. The individual possesses some innate potentials which develop through interactions with their environment. Bronfenbrenner (1977) organizes the environment into the microsystem, mesosystem, exosystem, and macrosystem. The individual's most immediate settings are called their microsystem. These settings are those that the individual has the direct contact with, such as their school, friends, and family. Recent research has focused more on microsystem variables, or immediate context, when looking at environmental influences on an individual. Bronfenbrenner (1977) argued that other, larger systems are important to consider due to their impact on the microsystem. He stated that the microsystems themselves interact to make up a larger system, which he calls the mesosystem. The relationship between school and family, or peers and family are examples of mesosystems. Social structures that shape an individual's immediate environment, but do not directly interact with the individual, compose the third system, the exosystem. Major institutions, neighborhoods, governmental offices, the media, the economy, and the allocation of resources are all examples of structures that compose the exosystem. Bronfenbrenner (1977) proposed that the broadest system, the macrosystem, consists of "the overarching institutional patterns of the culture or subculture, such as the economic, social, educational, legal, and political systems, of which micro-, meso-, exosystems are the concrete manifestations" (p. 515).

More recently, Bronfenbrenner (1995) elaborated upon how he theorizes the various systems to interact. People develop through multiple reciprocal interactions with

these systems. Over time, these interactions become increasingly complex. The interactions the individual has with her/his microsystem (i.e., a child and a parent or teacher) are avenues through which the individual's biological potential is stimulated or hindered. Successful interactions are contingent upon the individual's biopsychological characteristics, and the environments in which the interactions occur (i.e., the mesosystem, macrosystem). To illustrate, interactions between a parent and a child are dependent upon the child's biopsychology (i.e., intelligence, warmth), as well as the microsystems (e.g., is there hostility between the child's parents?), the mesosystem (i.e., is there a strained relationship between the child's parents and school, perhaps due to a language barrier between the two?), and the exosystem (i.e., is the individual a member of an impoverished social class?). Thus, each interaction is understood within a larger context. Bronfenbrenner's model has often been used to understand adolescent development. Specifically, the theory has formed the basis of research including an examination of resiliency among at-risk adolescents (Howard & Johnson, 2000), the effects of poverty on child development (Eamon, 2001), and effects of parent involvement in their children's education (Graves, Gargiulo, & Sluder, 1996).

Individual Variables

Bronfenbrenner's (1977) ecological theory holds that individuals develop within multiple environmental systems. The individual's demographics, such as race, gender, and socioeconomic status, as well as their individual psychology, such as their mental health, and acculturation strategies, interact with their environments to create their unique experiences. A discussion of the following individual variables and their relations with academic experiences will follow: gender, self-esteem, and acculturation.

Gender

Asian cultures, like other cultures, are patriarchal with clearly defined gendered expectations. Women and girls are expected to serve male family members in domestic roles (Hall, 2002). The experience of immigration often changes the gender dynamics within the family. One Vietnamese immigrant man described the post-migration shift in gender roles and status while talking to a researcher. He stated, "In Vietnam, the man of the house is king. Below him the children, then the pets of the home, and then the women. Here, the woman is the king, and the man holds the position below the pets" (Kibria, 1993, p. 108).

Following migration to a new country, Vietnamese women may have more access to economic resources than they had in Vietnam. This greater access might challenge cultural expectations regarding work and family. Many Asian American women reported negotiating these differences by performing different gender roles at home, in private, at work, and in public. These women may take on a more traditional role in families, and a more "American" role at work (Hall, 2002; Root, 1998). While Vietnamese American women are often straying from traditional gendered behaviors at work and contributing to the household economy for the first time, their status and role in the home often remain highly traditional. These women tend to prioritize maintaining traditional roles within their family (Kibria, 1993). Although these women might now be working outside the home, their first priority often remains caring for their families and children (Root, 1998). Despite these efforts to maintain a traditional family life, women working outside the home and earning an income greater than or equal to that of their husband's often creates

stress and tension within the family. In fact, these Vietnamese families are more likely to divorce than those Vietnamese families that do not undergo these changes (Luu, 1989).

Education and occupations in the United States often are segregated by gender (Hyde, 1996), and girls and boys are confronted with stereotypic expectations regarding education and work. However, little research has examined specifically the gender differences in the academic experiences of Vietnamese immigrant students. The literature on Asian Americans as a group suggested that Asian American immigrant girls have high expectations for educational trajectories, and that these aims are shared by their parents. However, the purpose of educating girls might be different than that of boys. In the past, a woman's education was considered important because it would improve her marketability for marriage. However, more currently, perhaps due to the necessity of dual earner incomes in the United States, Asian American families might be placing more value on their daughters' ability to be economically self-sufficient (Leong & Gim-Chung, 1995). However, women's careers are still considered secondary to their husband's career. This belief system is important to maintain because many Vietnamese immigrant families cannot afford to educate all of their children and must choose in whose education to invest (Kibria, 1993). Because men are considered primary breadwinners, it is possible that girls' educations might be sacrificed in favor of boys.

Empirical research on gender and education

Brandon (1991) examined the gender differences in educational attainment of Asian American students. He classified educational attainment as either high or low and defined high attainment as completion of a post secondary degree program or higher. He defined low educational attainment as equal to or less than that of a post-secondary

license or certificate. Brandon studied a sample of 177 Asian American men, 179 Asian American women, 1172 Black men, 1553 Black women, 884 Latino men, 1066 Latino women, 112 Native American men, 88 Native American women, and 2457 white men and 2980 white women. The results of the study indicated that Asian American women (43.4%) reported higher educational attainment than Asian American men (31.1%).

In a study examining the schooling progress of students by gender, ethnicity, and immigrant status, Grant and Rong (1999) used data from the Current Population Survey from U.S. Bureau of the Census (1991). The researchers compared the schooling progress of students aged 15 to 24, by the aforementioned demographic variables. Grant and Rong defined school progress as the total number of years of schooling completed. Data for 7233 White males were included in the study, along with 7,446 White females, 1,133 Black males, 1312 Black females, 463 Mexican males, 464 Mexican females, 186 other Latino males, 200 Latino females, 239 Asian males, and 215 Asian females. The results indicated that Asian, Mexican, and Latino men and women did not differ on schooling progress with regard to gender. Among Blacks and non-Latino whites, women had higher schooling progress than men.

In another investigation of the role of gender in school progress, Lopez, Ehly and Garcia-Vazquez (2002) studied the role of social support, acculturation, and several demographic variables and their influence on the dropout and achievement rate for Mexican American high school students. Ninety-one Latino ninth grade students from a large school district in the Southwestern part of the United States participated in this study. The mean participant age was 15.08 years (SD=.85). Twenty-five percent of participants were first generation, 45% were second generation and 15% were third

generation. Finally, 15% of the sample reported being fourth or fifth generation. Results indicated that gender was associated with acculturation, social support, and academic achievement. Females perceived higher levels of support from close friends and had higher GPA's than their male counterparts. Males reported a higher level of acculturation towards "American" culture.

To summarize, the literature on the academic experiences of immigrant students has focused on academic achievement and has yielded mixed results with regards to gender. More research on specific immigrant communities should be conducted to elucidate the academic progress of immigrant boys and girls. Much of the research examining gender differences on academic variables reports results aggregated for racial groups (i.e., Asian Americans rather than Vietnamese Americans). One problem with this methodological limitation is that important differences between ethnic groups might go unnoticed.

Self Esteem

Self-esteem refers to the general feelings of worth a person experiences about themselves (Smith & Betz, 2002). Self-esteem has been found to relate to career indecision (Smith & Betz, 2002) as well as academic performance (Davies & Brember, 1999). The research on Asian Americans indicated that this community exhibits lower self-esteem than White-American, Black American and Mexican Americans. Pang and Cheng (1998) suggested that one reason Asian Americans might show lower self-esteem is because they might tend to internalize racism especially related to their language, appearance and other cultural differences. This tendency may be in contrast to other minority groups who might externalize racism by relating it to problems in others'

thoughts and beliefs rather than a problem with their racial group. First generation Asian Americans who immigrated to the United States at older ages tend to exhibit lower self-esteem than their American born counterparts and those who came to the U.S. at very young ages. Lee and Zahn (1998) also suggested that the self-concept of Asian American students might be more strongly related to their academic performance than other students.

Empirical overview of self-esteem and education

Davies and Brember (1999) performed a four year longitudinal study that examined the self-esteem, reading achievement, and math achievement of 588 British students. The authors reported that the students were selected randomly from five schools that were located in areas that ranged from suburban to urban poor. The sample consisted of mostly White students and a few British Asian or British Caribbean students. Reading and math achievement were measured by students' performance on standardized tests. The results indicated that self-esteem was related positively to academic achievement.

Chapell and Overton (2002) found interesting results regarding the relationship of self-esteem to academics among Black American students. Three hundred-thirty Black American students, including 62 6th graders, 66 10th graders, 87 12th graders, and 115 college students were studied and correlations were found to differ between self-esteem and achievement across grade level. Self-esteem was related positively to grades among 6th graders, but not among 10th or 12th graders. Interestingly, self-esteem also was related to grades among college students. The authors performed tests to examine the differences in the correlations between self-esteem and grades among 6th graders versus high school students and among college students versus high school students. The results indicated

that both of these differences existed. There were no differences in the correlations for the 6^{th} , graders and college students or 10^{th} and 12^{th} graders.

In an investigation into the predictive quality of self-esteem in academic achievement, Wiggins and Schaltz (1994) studied data from 5th and 6th grade students. The total number of participants and other demographic information were not reported. Participants were given a self-esteem inventory near the beginning and end of the school year. A basic skills inventory was administered in the middle of the second half of the school year. A positive relationship was found between self-esteem and grade point average, and students who were reprimanded for disciplinary reasons reported lower levels of self-esteem. The results also suggested that academic achievement could be predicted by self-esteem, grade point average, visits to the school's nurses' office, intact or nonintact family status, mother working in intact family, and educational level of parents. Together these variables accounted for 57% of the variance in academic achievement, with self-esteem accounting for the largest proportion. Students who raised fifteen or more points during the first and second administration of the self-esteem inventory also raised their grade point average significantly during that year. This study was important because the results corroborate previous research demonstrating the importance of self-esteem to academic achievement. Also, the greater importance of selfesteem over test scores or grade point average support the importance of the role that non-cognitive factors play in school performance.

Trusty and Peck (1994) investigated the relationship between achievement, socioeconomic status, and the self-concept of 392 Mississippi fourth graders. The participants consisted of 52% Black American, 45% White, and 3% Native American

students. About 65% of these students were in socioeconomic brackets qualifying them to enroll in the school's free lunch program. Self-concept was defined and measured along seven dimensions: self acceptance (self-esteem), self-security, social maturity, social confidence, school affiliation, teacher affiliations, and peer affiliations. Results indicated that higher scores on all self-concept scales, except school affiliation, were related to high socioeconomic status and high achievement. Students that were low achieving and low in socioeconomic brackets had negative self-concepts, including self-esteem. Likewise, those students who were low achieving, but high in socioeconomic brackets had negative self-perceptions about school. Self-esteem was found to relate more to achievement than socioeconomic status. The findings of this study supported the importance of a relationship between self-esteem/self-concept and academic achievement and indicated that this relationship was stronger than the relationship between socioeconomic status and self-esteem. Further research should assess this relationship among different ethnic groups, especially because self-esteem is thought to vary by ethnic groups, with Asian American reporting lower levels.

Filozof et al. (1998) attempted to clarify the relationship between self-esteem and academic behaviors. Their sample consisted of 593 (378 female and 215 male) ninth and tenth graders in Louisiana. The ethnic composition was 60.9% Black American, 35.6% White, 3.5% Racial Others (Latino, Native American, Asian/Pacific Islander, and Other). Students completed measures on two occasions: at the end of each of two semesters during the same academic year. Both home and school self-esteem were studied. The results indicated that the first measure of self-esteem and academic performance predicted later self-esteem. Forty-six percent of the variance in the second administration

of self-esteem was explained by the academic performance variables, supporting the notion that how a student performs academically affected their family and school self-esteem.

In addition, Filozof et al. (1998) found gender differences, with females reporting higher school self-esteem than males. Males reported higher home self-esteem. More females indicated college goals and higher perceived academic progress, and had a higher mean grade point average than males. Racial differences for school self-esteem were significant. Black American students reported the highest levels of self-esteem, while the group consisting of Latinos, Native Americans, and others reported the lowest level of self-esteem. The results of this study lent support to a relationship between self-esteem and academic performance, and extended this by finding that self-esteem predicts grade point average. One limitation of this study was that the sample consisted of mostly Black American and White students, and aggregated the data of all other racial/ethnic students.

Spencer et al. (1993) performed a study examining the self-efficacy of Black American adolescents, focusing on issues of risk, vulnerability, and resilience.

Participants were 394 Black males and 168 Black females. Results indicated that academic self-esteem was predictive of academic performance in urban Black American male and female young adolescent students. They also found that intergenerational conflict was a predictor for female academic self-esteem, whereas it was not a predictor for male students.

To summarize, the academic variable widely studied in relation to self-esteem was academic achievement. Research on other academic variables, such as valuing of education and school belonging have rarely been studied. In the research examining self-

esteem and academic achievement, researchers tended to agree that a relationship between self-esteem and academic achievement exists, the causality of the relationship and whether there is a mediating variable between the two is still in question. The controversy concerns whether self-concept influences school achievement, or school achievement influences self-concept. The significance of this question lies in the application: that is, when designing interventions, do we try to increase self-esteem so academic performance will increase, or vice versa? Additionally, little research has examined gender, ethnic, and socioeconomic differences in the relationship between academic variables.

Acculturation

Acculturation is generally thought to refer to the process of learning a new culture (Marin, 1994) and can be defined as both a group level and an individual level process (Nguyen et al., 1999). A great deal of literature has discussed the role of acculturation in the lives of immigrant and minority groups. However, a consistent definition of acculturation has not appeared in the literature. Acculturation has been measured as a single index, a single continuum, or by using a multidimensional approach (see Nguyen et al. for a discussion of these approaches).

Acculturation is sometimes measured by single indices, such as length of U.S. residence or generational status. These single index measures of acculturation are not ideal because they oversimplify a very complex process. Also, length of residence in the U.S. or generational status does not necessarily indicate how much an individual subscribes to a given culture. Thus, these measures might lack content validity (Nguyen et al., 1999).

The single continuum approach conceptualizes acculturation as a continuum where one end represents complete adherence to one's culture of origin and the other end represents complete assimilation into the dominant culture. This is an incomplete conceptualization of acculturation because it does not account for the experience of feeling marginalized from both cultures. It also does explain for the experience of strong adherence to both cultures at the same time, or strong adherence to particular parts of each culture, while rejecting or being unfamiliar with other parts of each culture. Nguyen et al. (1999) highlighted another problem with the continuum conceptualization of acculturation. Specifically, when relationships are established between acculturation and adjustment variables, these relationships often are misunderstood due to this understanding of acculturation. For example, if strong adherence to Asian culture is related to positive mental health, then a continuum perspective of acculturation would imply that strong adherence to the dominant culture would be associated with negative mental health, which is not necessarily true.

Multidimensional models of acculturation begin to recognize the complexity of the acculturative process. They measure involvement in one's culture of origin separately from involvement in the dominant culture. These models also may measure participation in different aspects of each culture. For example, Birman and Trickett's (2001) measure of acculturation measures involvement with culture of origin and the dominant culture. In addition to this, the measure is composed of three subscales, measuring three different dimensions of acculturation, including language, identity, and behavior. Thus, a complex understanding of acculturation can be gained. For example, we can know the participant is bilingual, prefers to participate mostly in dominant culture activities, and identifies

strongly as a member of their culture of origin rather than as an American. This kind of complex understanding is lost with single index and continuum models of acculturation. This study will conceptualize acculturation in this multidimensional manner.

Empirical overview of acculturation and education

Nguyen et al. (1999) studied acculturation and academics in a sample of 182

Vietnamese students living in Michigan. The students were enrolled in grades 6 through
12, and 80% were born in Vietnam. Finally, 44% of the students were female and 56%

were male. These authors developed a multidimensional measure of acculturation for use
in this study. They found that involvement with U.S. culture positively predicted grade
point average, whereas involvement in Vietnamese culture did not relate to grade point
average. This study suggested that the more involved a student was in the dominant
culture, the more likely they were likely to perform well in school. However, because the
authors used a multidimensional approach to measure acculturation, they were able to
clarify the relationship between acculturation and education by adding that this
relationship has no consequence for involvement in Vietnamese culture, because that
involvement has no relation to academic achievement.

Birman, Trickett, and Vinkokurov (2002) also used a multidimensional measure of acculturation to study the relationship with this variable and grade point average among 162 Soviet Jewish refugee adolescents. These students attended a predominantly Jewish American high school and these refugee students comprised 15% of the high school population. The authors measured three specific areas of acculturation: language, identity, and behavior. They measured the student's familiarity with both American and Russian culture on each of the aforementioned areas. They found that grade point average

was predicted by American identity and Russian language. Thus, these authors suggested that there might be elements of both American culture and culture of origin that are helpful for students' school achievement. This study supported the idea that acculturation to American culture was related positively to academic performance. This complex method of measuring acculturation provided more information than continuum-focused measures.

Bankston and Zhou (1995) studied the relationship between Vietnamese language literacy and ethnic identity with high school academic achievement in the United States. Ethnic identity was measured using a single continuum approach. Participants included 387 Vietnamese adolescents from two schools in New Orleans. The researchers found a strong positive relationship between grades and Vietnamese language literacy. They also found a positive relationship between Vietnamese ethnic identity and grades. Thus, those students who could read and write in Vietnamese tended to perform better in school than those who could not. Likewise, those students who felt a strong sense of Vietnamese identity also tended to perform well in school. This study supported Birman et al.'s (2002) findings that ethnic language proficiency was related to academic achievement.

Lese and Robbins (1994) studied acculturation and academic achievement among 17 Cambodian and 22 Vietnamese refugee adolescents, but did not find a significant relationship between these variables. These researchers used a single continuum method of measuring acculturation in this study. Perhaps if acculturation was more precisely measured relations with academic achievement would emerge.

Lopez et al. (2002) studied the relationship between acculturation and grade point average among 60 Mexican and Mexican American high school students from the

southwestern United States. These researchers used a multidimensional approach to measure acculturation, but did not find any correlations between acculturation and academic performance. These findings suggested that the relationship between acculturation and academic achievement might differ among various ethnic groups.

In summary, research on acculturation and education has focused specifically on academic achievement, and this research has yielded conflicting findings. For example, some studies have found that involvement in Vietnamese culture does not relate to academic achievement while others have found a positive relationship between the two. However, some of these discrepancies are probably due to the many ways acculturation has been defined and measured. It seems important to further our understanding of acculturation by measuring this construct more accurately. Other differences in the relations between acculturation and academic achievement have been found between ethnic groups, suggesting a need to study these variables within specific groups. Other academic variables, such as attitudes towards education and school belonging have yet to be studied for their relations to acculturation.

Microsystem level variables

The microsystem is the part of the environment within which the individual has direct contact. This section will discuss the following microsystem level variables and their relations to academic achievement: social support, parental expectations, and peer support.

Social Support

Social support seems to relate strongly to school adjustment and academic achievement (Arbona, 2000; Steinberg et al. 1992). Parents play a large role in an

adolescent's long term educational plans, while peers are very influential in shaping daily behavior (Steinberg, et al. 1992). Thus, it seemed important to consider both parental and peer support when considering adolescent academic performance.

During adolescence, students begin to spend less time with their parents and more time with their friends. Since schools are social environments and the place where many friendships are often formed, it is likely that peers influence academic attitudes (Ryan, 2001). Students who have difficulty establishing friendships may experience psychological distress, which may in turn influence their academic performance (Clark, 1991).

The social group with whom a student identifies can influence the student's educational experiences. For example, if the social group devalues educational achievement, students might be more likely to adopt these values and view themselves in ways that are inconsistent with academic striving (Goodenow, 1992). In fact, Crosnoe (2002) claimed that association with deviant friends is one of the best predictors of adolescent deviance. Students frequently report peer pressure as a cause of academic and behavior problems, and will advocate for seeking positive peers as a solution to academic problems (Tucker et al., 2000). Research with Vietnamese adolescents suggested that those students who do not perform well in school might find a social niche in gangs and become involved in criminal activity (Kibria, 1993).

Steinberg et al. (1992) suggested that parents play a very influential role in the lives of Asian Americans students, however, the influence of Asian American peers might sometimes offset the influence of their parents. Asian American adolescents often find themselves with a limited choice of friends, due to social ethnic segregation. Asian

American peer groups tend to value academic success, a value that tends to be consistent with that of Asian American parents. However, in cases when the peer group does not share these academic values, peer pressure tends to offset parental pressure. Further research is needed to assess the relationship between peer influence and academic achievement.

Empirical review of peer support and education

Tucker et al. (2000) performed a study on Black American students' perceptions of their academic problems and solutions to these problems. Twenty-two elementary students (13 females and 9 males) and twenty-one high school students (14 females and 7 males) completed 22-item questionnaires asking them to identify academic problems, and to write their solutions to these problems. One of the four themes that students identified as a solution to their academic problems was having more positive peer influences. Both elementary and high school students were concerned about peer pressure. The most cited cause of academic behavioral problems, according to the elementary students, was peer pressure (26%).

Goodenow and Grady (1993) studied the relationship of school belonging and friends' values to academic motivation among urban adolescent students. The sample consisted of 301 students (158 boys, 130 girls, and 13 unreported) from two junior high schools (grades 7 to 9). The ethnic composition was 109 Latinos, 96 Black Americans, 82 White Americans, 3 Asian Americans and 11 unidentified students. The results indicated that friends' values had a significant relationship with expectancy, value of schoolwork and school motivation. Since there were few Asian Americans in this sample, there were no statistical analyses completed on Asian Americans.

Ryan (2001) investigated the relationship between an individual's academic motivation and achievement to that of their peers. Three hundred and thirty-one seventh graders from an urban middle school were surveyed on two occasions. They were first studied toward the beginning of the school year and then again toward the end of the same school year. The sample was 68% White American, 19% Latino, 10% Black American, and 3% Asian American. The gender composition was 173 girls and 158 boys. Peer group motivation/achievement at time 1 accounted for variance in the individual's sense of the intrinsic value of academics and academic achievement at the end of the school year. The author did not examine Asian Americans separately because the sample size was too small.

Fuligni (1997) investigated the impact of family background, parental attitudes, peer support, and adolescents' attitudes and behavior on their academic achievement.

Students were recruited from middle and high schools in a California school district that had a large immigrant population. One thousand one hundred students participated, and the ethnic composition was 249 Latinos, 195 East Asians, 392 Filipinos, and 264 Whites.

Most East Asians reported their ethnicity to be Chinese, and others indicated being Korean, Indian, or Southeast Asian. Thirty percent of the sample was in the sixth grade, 30% in the eighth grade, and 40% in the tenth grade. Upon comparing first, second, and third generation students, Fuligni (1997) found that third generation students experienced less peer support for academics than first and second generation students. Fuligni speculated that the first generation students perceived their parents to have high values and expectations regarding their academic success and goals. Subsequently, these students would be more likely seek peer support with homework and studying.

Fuligni (1997) also found ethnic differences in the sample, with East Asian and Filipino students reporting higher parental expectations and aspirations, stronger academic behaviors and attitudes, and more peer support for academics than other students. For all students, relations emerged between parental aspirations, peer support for academics, academic attitudes, amount of study time, and academic achievement. However, peer support did not contribute to the prediction of academic achievement. Peer support was related to academics, but the nature of the relationship may vary depending on other salient life variables.

Gloria and Ho (2003) performed a study examining how the environmental, social, and psychological experiences of Asian American undergraduate students influenced their academic persistence. One hundred and sixty Asian Americans were recruited from one university in the Northeast. The ethnic composition was 55 Chinese, 32 Korean, 27 Japanese, 18 Vietnamese, 15 Pacific Islander, and 13 Filipino. Vietnamese American students reported the lowest amounts of social support from friends, and the highest levels of self-esteem. For the sample as a whole, academic self-beliefs and social support variables were related. In the prediction of academic persistence, social support accounted for a larger amount of variance in persistence than did comfort in the university setting. When academic self-beliefs and social support were assessed for their usefulness in predicting academic persistence, only social support explained variance. Furthermore, students reported receiving higher amounts of social support from friends than from families.

To summarize, peer support was related to a variety of academic variables, including behavioral problems at school, value of schoolwork, school motivation,

academic attitudes, and academic persistence. However, the predictive value of peer support on any academic variables has yet to be established. Furthermore, differences with respect to gender, socioeconomic status, and the relation between peer support and academics have been minimally considered in the literature. Further research should examine these relationships to construct a deeper understanding of the factors associated with educational experiences among adolescents.

Empirical review of social support and education

Gloria and Ho (1993) studied factors related to academic persistence among
Asian American college students. The sample consisted of 160 students, including 34%
Chinese American, 8 Filipino Americans, 17% Japanese Americans, 20% Korean
American, 9% Pacific Islanders, and 11% Vietnamese Americans. Sixty-six percent of
the sample were women, and 34% were men. Results indicate that social support was the
strongest predictor of educational persistence. Thus, this study provides corroboration for
the importance of social support in the education of Asian American students.

Richman, Rosenfeld, and Bowen (1998) examined types of social support for atrisk adolescents. Five hundred and twenty-five middle school and high school students in North Carolina and Florida participated; the racial composition was mostly Black Americans and non-Latino white students. The school satisfaction of middle school students was related to emotional support, emotional challenge support, and reality confirmations support. All of these types of support were provided by adults. This study supported the hypothesis that parental support relates to the achievement of middle school students.

Plunkett and Bamaca-Gomez (2003) studied the relationship between parental support and academic outcomes among 273 Mexican American high school students. Both parents of each student were born in Mexico, thus all participants were first or second generation American students. Girls represented the majority of the sample, representing 58.4%, whereas boys represented 41.6% of the sample. The results of this study suggested that parental support was related to adolescent academic motivation and educational aspiration. This study upheld the importance of parental support for academics even into late adolescence.

Bean et al. (2003) also examined the relationship between parental support and academic achievement. These authors studied a sample of 75 African American and 80 European American adolescents from high school in the Midwestern part of the United States. The authors provided no further description of the sample. This study examined maternal support separately from paternal support and found that among African American adolescents, only maternal support was predictive of academic achievement. Maternal support was not predictive of academic achievement among European American adolescents, however other parenting roles surfaced as important. Specifically, maternal and paternal behavioral control and maternal psychological control were important predictors of academic achievement among European American adolescents. This study suggested that different parenting practices might be important for academic achievement among different cultures, and supports the need to study these relationships among specific ethnic groups.

Plybon, Edwards, Butter, and Belgrave (2003) studied the relationship between social support and academic self-efficacy among African American adolescent girls.

Eighty-four students ranging in age from 11 to 14 years and living in a city in the Southeastern part of the United States participated. Results indicated that parental support was predictive of academic self-efficacy among these girls, whereas peer support and support from other adults were not significant predictors of academic variables.

Malecki and Demaray (2003) studied the relationships between various types and sources of social support and academic achievement among students in grades 5, 6, 7, and 8. The types of support examined in this study were emotional, instrumental, appraisal, and informational and the sources of support included parents, teachers, classmates, and friends. The 263 participants were from urban and rural areas of Illinois as well as from a suburb or New York. Of the participants, 47.5% were male and 52.5% were female. The racial composition of the sample was 43% Hispanic, 11.5% African American, 38.8% European American, 1.9% Asian American, 1.1% Native American, and 3.4% identified as members of other racial groups. The results indicated that only emotional support from teachers significantly predicted academic competence. No other type of support from any other source was predictive of student academic competence. This study highlights the importance of teacher support, and specifically, teacher emotional support for the academic success of young adolescents.

To summarize, research suggested that social support, particularly parental support, was related to academic achievement among adolescents of several ethnic groups, across genders, and across urban, suburban, and rural environments. However, a few studies that looked more closely at types of support have found that these relationships might differ across racial groups and ethnic groups. For example, maternal support might be more important in the academic achievement of some African American

students, whereas parental behavioral and psychological control might be more important among European American students. Furthermore, studies that examined several types of support suggested that teacher support might be more important than parental support for the academic achievement of some students. Little research has examined these relations among Asian American ethnic groups. Also, minimal research has examined relations between social support and other educational experiences, such as academic attitudes and school belonging. Thus, further research should examine the role of various sources of social support among specific ethnic groups, such as Southeast Asians, to assess which, if any, types of support are most predictive of academic variables within this community.

Parental expectations

Parental expectations refer to the aspirations that parents have for their children's education. Asian American students might feel unique pressures due to high parental expectations to achieve academically. First, one major reason why Asian families might immigrate to the United States is for increased educational opportunities for their children (Fuligni, 1997). Also, Asian immigrant families who are living in poverty often look to their children to achieve academically with the goal of securing employment that will allow the family to move upward to middle class status (Kibria, 1993). Goldenburg et al. (2001) reported that students who perceived high parental expectations regarding academics tended to fulfill these expectations. For example, those students with mothers who expected them to complete college were half as likely to drop out as those students who did not perceive their mother to have these expectations.

Empirical overview of parental expectations and education

Kaplan et al. (2001) investigated the relationship between parents' self-feelings and expectations on their children's academic performance. One thousand eight hundred sixty-four parent-child pairs were surveyed, and the sample included 50% White, 33% Black American, 14% Mexican American, and 3% students of other ethnicities. Students were 11 to15 years old. A positive relationship between perceived parental expectations and children's academic performance was found. Parents with high negative self-feelings and high expectations predicted low academic performance for the child while parents' positive self-feelings and high expectations predicted high levels of academic performance. This study lent support for the relationship between parental expectations and children's academic performance.

Goldenberg et al. (2001) investigated the relationship between parents' aspirations and expectations, and children's school performance in immigrant Latino families. Data from 81 students, approximately half male and half female, were examined. These students completed measures yearly from kindergarten through 6th grade. Cross-sectional correlations between school performance and parent aspirations and expectations found that teacher's ratings of the child in Grade 5 correlated positively with the parental expectations. There was a positive correlation between the child's interest in school in Grade 6, and their parental expectations. Regression analyses found no significant paths from parental expectations to children's achievement at any grade level. There were, however, significant paths from teacher's ratings to parent's expectations from grades 1 through 5. There were also significant paths from reading achievement of the child to parental expectations in grade 1 and grade 4. Thus, it seemed that parental expectations

were influenced by child's achievement. This study extends the literature by demonstrating a correlation between parental expectations and children's achievement by looking more closely at the nature of the relationship.

Although no research has studied the relationship between parental expectations and academic performance among Vietnamese adolescents, some researchers suggested that Vietnamese parents have high expectations for their children's school performance. DuongTran, Lee and Khoi (1996) studied stressful life events among 30 Vietnamese, 20 Hmong, and 20 Cambodian adolescents. These adolescents were asked to rate how much stress they experienced as a result of each of 90 items on a life event inventory. The second most stressful life event reported by Vietnamese adolescents was "High expectations from parents to do well in school." Fifty-three percent of Vietnamese students experienced this as a stressful event. This item was also ranked among the top five most stressful events among Hmong (35%) and Cambodian (21%) adolescents. It seemed that Southeast Asian students perceived their parents to highly value academic success and feel stress due to these expectations.

Related to parental expectations, McWhirter, Hackett, and Bandalos (1998) studied the relationship between parental support and the academic expectations that Mexican American girls have for themselves. As previously stated, these researchers developed a structural model to predict educational expectations among 282 Mexican American adolescent girls living in a semi-rural part of the Southwestern United States. The authors found a direct path between father support and educational plans. Thus, those girls who perceived their fathers to be supportive of their educational plans tended to plan for higher levels of education for themselves.

To summarize, the literature generally supports the relationship between parental expectations and student academic performance. This relationship has been studied within some specific ethnic groups, but the research has not examined how this relationship functions across genders. Future research should examine the relationship between parental support and other academic variables, such as academic attitudes and school sense of belonging, as they might be particularly important in designing interventions.

Mesosystem variables

The mesosystem refers to the relationship between an individual's microsystems. Intergenerational conflict can be considered a mesosystem variable because it represents the conflict between an individuals siblings and peers with their parents, uncles, aunts, and other adults. Thus, intergenerational conflict is a conflict between microsystems. A discussion of intergenerational conflict and its relation to various aspects of immigrant adolescents lives will follow.

Intergenerational conflict

Intergenerational conflict is the disagreement that occurs between people of different generations, such as parents and children. Immigrant families tend to be more prone to intergenerational conflict due to different rates of acculturation for children and adults. This conflict often leads to tension across salient life issues for adolescents such as dating, drugs, alcohol, sex, social involvement, religiosity, community involvement, and other areas. Intergenerational conflict is associated with a variety of negative health consequences in adolescents, but has not been assessed for how intergenerational conflict relates to academic performance.

Empirical review of intergenerational conflict

One study examined the role of intergenerational conflict in academic self-esteem. As stated above, Spencer et al. (1993) studied academic self-esteem and academic performance among Black American adolescent students. They found that academic self-esteem was predictive of academic performance and that intergenerational conflict was predictive of academic self-esteem among female students. This relationship did not hold true for male students. These findings support the importance of examining gender differences and also provide support for the role of intergenerational conflict in academic experiences.

Hovey and King (1996) studied the relationship of family functioning to acculturative stress, depression, and suicidal ideation among 40 female and 30 male Latino adolescent students in California. Most of these students were immigrants of low socioeconomic backgrounds. The researchers found that poor family functioning was a significant independent predictor of depression among adolescents. These findings lent support for the relationship between intergenerational conflict and emotional distress.

Phinney et al. (2000) studied intergenerational conflict among 197 Armenian, 103 Vietnamese, 171 Mexican/Mexican American, 95 Black American, and 135 White American middle and working class families residing in Los Angeles. They found that values discrepancies between parents and adolescents differed by ethnicity. A post hoc analysis discovered that Vietnamese families experienced more values discrepancies than all other families included in the study. These results suggested that intergenerational conflict might be an especially important factor in the lives of Vietnamese immigrants.

Rosenthal et al. (2001) studied intergenerational conflict among 204 Vietnamese immigrant adolescents living in Australia. The researchers investigated the relationship between parent-child values discrepancies and amount of conflict with their parents as well as with how much gender role dissatisfaction was expressed by the adolescents. They found that girls who reported higher discrepancies in traditional Vietnamese family values with their fathers also experienced more conflict with their fathers, as well as more dissatisfaction with their gender roles. Girls also were dissatisfied when they experienced a discrepancy with their mothers with regard to traditional Vietnamese family values or values regarding adolescent independence. Girls also experienced more conflicts in their relationships with their fathers when there was more discrepancy between their values and their fathers' values with regard to adolescent independence.

Interestingly, a very different relationship emerged among boys in this study.

Boys showed a negative relationship between discrepancy in adolescent independence values with their fathers and conflict with their fathers, and also a negative relationship between discrepancy with mothers' values with regard to traditional Vietnamese family values and gender role dissatisfaction. Thus, the Vietnamese girls in this sample appeared to be struggling more than the boys in balancing the demands of two cultures.

In another study assessing intergenerational conflict among Asian American students, Chung (2001) examined the relationship between intergenerational conflict and gender, ethnicity, and acculturation. The sample consisted of 102 Chinese, 83 Korean, 57 Japanese, 40 Filipino and 38 Southeast Asian college students. Two hundred eight of the participants were female and 112 were male. Findings indicated that the more acculturated the individual, the less conflict they experienced around family expectations.

This result may occur because the vast majority of students who were highly acculturated were at least second or third generation Americans. Thus, their parents were most likely more acculturated as well (especially when their parents were American born).

Additionally, gender differences in intergenerational conflict were observed. Women experienced greater conflict with regard to dating and marriage issues than did men.

These findings supported other studies indicating that intergenerational conflict might be a salient experience in the lives of immigrant women.

To summarize, intergenerational conflict seemed important in the lives of Vietnamese immigrant adolescents. Research found relations between intergenerational conflict and depression as well as gender role dissatisfaction (Hovey & King, 1996; Rosenthal et al., 2001). The role of intergenerational conflict in the academic experiences of adolescents has yet to be studied. Also, very little research has examined gender differences with regard to intergenerational conflict, however, the research that exists suggested that some important differences might exist between boys and girls in this area. Further research should examine these gender differences.

Exosystem Variables

Exosystem variables represent broad and systematic influences in a Vietnamese adolescent's life. Exosystem variables, such as social class will be considered but not assessed in this study.

Dependent Variables

The dependent variables included in this study are school sense of belonging and academic attitudes. Both of these variables can be considered individual level variables because they refer to the individual's personal academic experiences.

School sense of belonging

School sense of belonging refers to the degree of connectedness a student feels to their school (Goodenow, 1992). Goodenow (1992) explained the importance of studying school sense of belonging in that "learning, development, and education are so fundamentally embedded in a social matrix that they cannot be truly understood apart from that context" (p. 178). Belonging is a type of social support in which the student feels a sense of being included, valued, and accepted. Belonging is conceptualized as a basic human need that must be met before other, less basic motives can be met (i.e., desire to learn). Among at-risk students, those who are alienated from the school might be more likely to drop out than those students who identify with the school (Goodenow, 1992). Some literature suggested that students' identification with school more strongly influenced their academic performance than did self-esteem (Finn & Cox, 1992). Finn (1989) suggested that unless students identify with and feel valued and respected by their schools, they disengage academically. Steele (1997) asserted that school identification was necessary for academic success. Racism and discrimination, economic disadvantages, and gender stereotypes can impact negatively school identification, and academic performance.

Asian American immigrant students might particularly be likely to feel disengaged from school. Non-Asian students tend to participate in sports as

extracurricular activities while Asian American students tend to participate in specialized academic-related interest clubs (e.g. math, science, classical music) or in social, ethnic, or community organizations (Hsia & Peng, 1998). This difference in extracurricular activities might isolate Asian American students from other students in school, and perhaps decrease their sense of belonging in their school. Asian American males also tend to experience strong feelings of loneliness, isolation, and rejection (Leong, 1998), which could also relate to low school sense of belonging.

Empirical overview of school sense of belonging and education

Trueba, Jacobs, and Kirtons (1990) studied Hmong American children in an elementary school of 600, half of whom spoke English as a second language. These students had limited English skills and limited knowledge of mainstream culture, which inhibited students from participating in class. The authors described the students as disengaged and passive. These students often were misidentified as learning disabled. These experiences may have limited these students' participation in school, which seemed likely to correlate with their school sense of belonging.

Anderman and Anderman (1999) investigated the relationships between school sense of belonging, goal orientations and academic achievement. Participants were 660 students who completed measures in 5th and 6th grades. These students were recruited from middle schools serving diverse communities. Approximately equal numbers of boys and girls participated in the study and the ethnic composition of the sample was 50% Black American, 39% White, 7% Latino, and 4% Other. The results indicated that school belonging was related positively to 5th graders' grade point average. This study supported previous research findings regarding a relationship between school sense of belonging

and academic achievement. However, no information regarding gender or ethnicity can be gleaned from this study, limiting the generalizability of the results.

Goodenow and Grady (1993) studied the relationship of school belonging and friends' values to academic motivation among urban adolescent students. The sample consisted of 301 students (158 boys, 130 girls, and 13 no answer) in two junior high schools (grades 7-9). The ethnic composition was 109 Latino, 96 Black American, 82 White, 3 Asian American and 11 unidentified students. The results suggested that school belonging had a positive relationship with friends' values and value of schoolwork, school motivation and effort/persistence. While the significance of the correlations held for each ethnic group, Latino students reported a higher correlation between school sense of belonging and academic expectations than Black American students. The results lent support for the idea that an individual's school sense of belonging was related to their academic achievement, and raised questions regarding how these relationships operate within and between racial groups.

Voelkl (1995) investigated the relationships between student's perception of school warmth, their participation in school, and their academic achievement. School warmth measured the feelings that students had towards their teachers and school (e.g. school spirit, amount teachers listen to what students have to say). Participants were 13,121 eighth-graders that participated in the U.S. Department of Education's National Education Longitudinal Study in 1988. Results indicated that school warmth was associated with student achievement. However, when the data on student participation were not included, no relationship between school warmth and achievement emerged.

To summarize, school sense of belonging was found to relate to a variety of academic variables such as academic expectations and achievement. Some racial differences have been noted, suggesting the importance of studying specific ethnic groups to further understanding of school sense of belonging. Furthermore, research has not examined the collective contributions to school sense of belonging.

Academic attitudes

Academic attitudes refer to the beliefs and attitudes an individual has about education. A number of student attitudes have been found to be significant predictors of achievement, including academic self-concept, achievement expectancies, interests and motivation (Mujs, 1997; Singh et al., 2000). Also, research suggested that academic expectations were related to later academic performance (Grant, 1989; House, 1994, 1995a, 1995b).

Empirical review of academic attitudes and education

Lee (1994) studied the academic attitudes of underachieving Asian American high school students living in Philadelphia. The results indicated that Asian American underachievers can be clustered into two groups. The first group was studious and hardworking, but struggled with schoolwork due to limited English skills. They had high beliefs in the value of school, but did not ask for help because it would bring negative attention on themselves and their families. The second group of underachievers were Asian Americans who distinguished themselves from the model minority stereotype in an effort to be accepted from non-Asian American peers. They were less concerned with how their families view them, and focused more on being accepted and viewed highly by

their peers. Their attitudes toward their academics were low. These students skipped classes, did not do their schoolwork, and fulfilled the minimum requirements to pass.

Fuligni (1997) investigated the impact of family background, parental attitudes, peer support, and adolescents' attitudes and behavior on student academic achievement. Participants included 249 Latino, 195 East Asian, 392 Filipino, and 264 White middle school and high school students. Students were recruited from schools with large immigrant populations. Fuligni studied the predictive value of family background, parental attitudes, peer support, and adolescent academic attitudes and behavior on student academic achievement. Only students' academic attitudes and amount of time spent studying emerged as predictors of Math and English achievement.

House (1997) performed a study examining the predictive nature of attitudes, parental characteristics, background characteristics and prior education on the academic achievement of Asian American students. The sample consisted of 378 freshmen college students (196 females; 182 males). Academic achievement was assessed from students' cumulative grade point averages after their first and second year of college. The results lent support for the idea that Asian American students' attitudes (i.e., academic self-concept, expectations regarding achievement) were predictors of their academic achievement. Academic self-concept was correlated with grade point average after one and two years of college. Achievement expectancies were related to grade point average after one and two years of college. Academic self-concept explained a significant proportion of the variance in the prediction of grade point average after one and two years. This finding was consistent with previous research on the relationship between academic attitudes and performance among Asian American high school students.

Singh et al. (2002) examined the influence of motivation, attitude, and academic engagement on the math and science achievement of 3,227 students that were randomly selected from a national database of 24,599 eighth graders. Demographic information describing the sample was not reported by the U.S. Department of Education. A structural equation model was created to examine the indirect and direct effects of these variables on achievement, as well as their relationships with each other. All three variables were predictive of achievement in math and science.

DuongTran et al. (1996) studied life stress among 70 Southeast Asian adolescents, 30 of whom were Vietnamese. Students were given a 90-item measure of possible life stressors and asked to rate the stress associated with each of the items. The most frequently endorsed stressor reported by Vietnamese adolescents was "Personal pressure to get good grades." Fifty-seven percent of Vietnamese adolescents identified this item as a source of "some" or "a lot" of stress in their lives. This item was ranked second by Hmong students (N = 20), and was not one of the top five stressors reported by Cambodian students (N = 20). Thus, Vietnamese students seemed to feel pressured to achieve academically.

Bankston and Zhou (1995) studied the relationship of academic attitudes to Vietnamese language proficiency and Vietnamese ethnic identification among 387 Vietnamese high school students in New Orleans. They found that the ability to read and write Vietnamese was related positively to how much time students spend on homework. They also found that identification with Vietnamese ethnicity was related positively to how much time students spend on homework as well as the importance the students gave to college attendance. It would be interesting to expand this research to understand why

students who were highly proficient in Vietnamese and highly identified as Vietnamese spent more time on homework. This might be due to added difficulty experienced in completing homework assignments (if they are less English proficient), or it could be due to a greater value for educational success, among other reasons.

Thus, the literature suggested that academic attitudes were related to academic achievement and that Vietnamese students valued performing well in school. However, the literature has not examined whether this relationship holds true among both genders. Furthermore, additional research is needed to understand what factors predict academic attitudes so interventions can be designed to enhance them.

Summary

To conclude, little research examined the educational experiences of Vietnamese American adolescents. Asian American students are usually studied together as a homogenous group, however, the research that has disaggregated data for Asian American students has suggested that important differences between ethnic groups may exist. Specifically, Southeast Asian adolescents tend to perform more poorly than other Asian ethnic groups in school. These performance differences are thought to be due to the different circumstances under which Southeast Asians settle and adapt in the United States. Thus, it is important to examine the relations between academic experiences and such adaptation variables.

Gender and ethnicity have not often been studied together in relation to school performance. Although some research has studied the role of each of these variables with school performance and found important differences, little research has looked at the way gender and ethnicity might interact to influence academic experiences. Therefore, this

study examined the academic experiences of Vietnamese adolescent students. The role of gender and was assessed, as well as adaptation variables such as acculturation, self-esteem, support, and intergenerational conflict, to determine their contributions to the prediction of academic attitudes and school belonging of Vietnamese students.

Research Questions

- 1. How can Vietnamese adolescents be described with regard to the independent (i.e., gender, self-esteem, acculturation, social support, parental expectations, peer attitudes, and intergenerational conflict) and dependent variables (i.e., school sense of belonging and academic attitudes) in this study?
- What are the relationships among the individual(i.e., gender, self esteem, and acculturation), microsystem (i.e., social support, parental expectations and peer attitudes), mesosystem (i.e., intergenerational conflict), and dependent variables (i.e., school sense of belonging and academic attitudes) in this study for Vietnamese adolescents?

Hypotheses

- Individual (i.e., gender, self-esteem, and acculturation), microsystem (i.e., social support, parental expectations and peer attitudes), and mesosystem (i.e., intergenerational conflict) variables will account for significant shared and unique variance in the prediction of school sense of belonging (see Figure 2).
 - a. Individual variables (i.e., gender, self-esteem, and acculturation) will account for significant unique variance in the prediction of school sense of belonging.

- b. Microsystem variables (i.e., social support, parental expectations and peer attitudes) will account for significant unique variance in the prediction of school sense of belonging.
- c. Mesosystem variables (i.e., intergenerational conflict) will account for significant unique variance in the prediction of school sense of belonging.
- 2. Individual (i.e., gender, self-esteem, and acculturation), microsystem (i.e., social support, parental expectations and peer attitudes), and mesosystem (i.e., intergenerational conflict) variables will account for significant shared and unique variance in the prediction of academic attitudes (see Figure 2).
 - a. Individual variables (i.e., gender, self-esteem, and acculturation) will account for significant unique variance in the prediction of academic attitudes.
 - b. Microsystem variables (i.e., social support, parental expectations and peer attitudes) will account for significant unique variance in the prediction of academic attitudes.
 - c. Mesosystem variables (i.e., intergenerational conflict) will account for significant unique variance in the prediction of academic attitudes.

METHOD

Procedure

The present investigation is part of a larger study investigating the experiences of Vietnamese American adults and adolescents in the Maryland area (Trickett & Birman, manuscript in preparation). The head of a national organization of Vietnamese American Service Agencies located in a Maryland suburb was contacted to help recruit four bilingual Vietnamese American college students from two school districts where large numbers of Vietnamese refugees reside. These college students generated a list of Vietnamese adolescents by means of their community networks of Vietnamese families and churches, as well as by searching through their high school yearbooks. One hundred seventy-five adolescents initially were invited to participate in this study by either a telephone call to the home or by an in-person invitation. Participants included 159 adolescent Vietnamese refugees living in Montgomery County, Maryland. This represents approximately an 80% response rate. Fifty-three percent of the participants were female and 47% were male. Twenty-five percent of the participants were born in the United States, whereas 73% came to the U.S. with their parents, and 2% reported "other" ways of arriving in the U.S., (i.e., with other family members, alone, etc.).

These college student research assistants were trained to administer a survey to the adolescents and all practiced administration prior to gathering data. Each measure and each item on each measure was discussed in two focus groups of Vietnamese college students at the University of Maryland and were deemed appropriate for the Vietnamese adolescent population. The college students then visited each participant in their homes to administer survey packets. The survey packet consisted of 23 measures and took about 45

minutes to complete. Only a small number of the measures administered in the larger study were included in this investigation.

Measures

Individual variables

Demographics

A demographic questionnaire was administered to the adolescents seeking information including grade level, academic performance, gender, religion, and immigration history (see Appendix A). Immigration history included questions regarding what year the adolescent arrived in the United States, if the adolescent arrived alone, with parents, or with others, and how the adolescent's family came to the United States. *Self-esteem*

Self-esteem was measured using the Rosenberg Self-Esteem Scale (RSSS; Rosenberg, 1965; see Appendix C). The RSSS consisted of ten items that are measured on a 4 point Likert scale, with 1 representing "strongly agree" and 4 representing "strongly disagree." An example of an item on the RSSS is, "On the whole, I am satisfied with myself." Five of the items are written negatively and thus must be reverse scored. An example of such an item is, "At times I think I am no good at all." Participant responses are reverse scored when appropriate and then summed. Higher scores represent more positive self-esteem. The RSSS is correlated positively with many other self-esteem measures, including the Coopersmith Self-Esteem Inventory (Crandall, 1973). Rosenberg (1965) reported a Chronbach alpha coefficient for this scale as .90. In a study of Vietnamese Americans, this measure was found to have a reliability of .82 (Pham & Harris, 2001) and in the current study, the measure demonstrated a reliability of .87.

Acculturation

Acculturation was measured using the Language, Identity and Behavioral Acculturation Scale (LIB; Birman & Trickett, 2001; see Appendix B). The LIB was originally created to measure acculturation in Russian immigrants to the United States. The original measure consisted of 50 items and yielded a separate American Acculturation Index and Russian Acculturation Index. The reliabilities for these indexes were reported as .90 and .94, respectively (Birman et al., 2002).

For the purposes of this study, the measure was modified to reflect Vietnamese immigrant experiences. All the items were reworded, and six new items were added. The added items included the following questions: "How well do you write in English"; "How well do you write in Vietnamese"; "How much do you participate in American community activities"; "How much do you participate in Vietnamese community activities"; "How much do you participate in American religious services"; and "How much do you participate in Vietnamese religious services?" All items were evaluated by two focus groups of Vietnamese college students and were deemed appropriate for this population. Like the original measure, the modified version of the LIB also consisted of three subscales: language competence, identity acculturation, and behavioral acculturation.

The language competence scale included 18 items that assessed how well the adolescent rated her/his English speaking and comprehension skills, as well as her/his Vietnamese speaking and comprehending skills. An example of an item on this subscale reads, "How would you rate your ability to speak English at school?" Responses to items are on a 4-point Likert scale, where 1 represents "not at all," and 4 represents "very well,

like a native." The mean of the responses for each the English and Vietnamese language items are computed. A mean closer to 4 indicates language proficiency. In the original measure, the Cronbach alpha coefficients reported for this subscale were .95 for the Russian language subscale and .91 for the English language subscale (Birman et al., 2001). A positive correlation between the language competence scale and verbal Scholastic Aptitude Test (SAT) scores provided support for the validity of this subscale. In the present study, the alpha coefficient for the Vietnamese language subscale was .96 and was .94 for the American language subscale.

The identity acculturation subscale included 14 items that measure how strongly the adolescent identifies with being American and/or Vietnamese as well as how good or bad the adolescent feels about this identity. This subscale was based on Phinney and Devich-Navarro's (1994) American Identity Questionnaire, and consists of parallel items for the assessment of Vietnamese and American identity. One example of an item assessing how strongly the adolescent identifies culturally is "I am part of Vietnamese (or American) culture." One example of how an adolescent feels about her/his cultural identity is, "I feel good about being Vietnamese (or American)." Two means for the American cultural identity items and Vietnamese cultural identity items were computed. A mean close to four indicated high identification with American culture or Vietnamese culture. The Cronbach alpha coefficients for the original subscale were .92 for American identity and .93 for Russian identity (Birman et al., 2002). In the present study, the alpha coefficients for the American identity was .91.

Birman et al. (2002) reported that both the American identity subscale as well as the Vietnamese identity subscale related to other measures in their study as hypothesized.

For example, American identity exhibited a positive relationship with perceived social support from American peers and a negative relationship to perceived social support from Russian peers. Furthermore, Russian identity was related positively to perceived social support from Russian peers, and negatively related to perceived social support from American peers. Thus, the content validity of these scales was supported. There are no data regarding the reliability with a sample of Vietnamese participants.

The behavioral acculturation subscale assessed how often the adolescent participates in activities associated with Vietnamese culture and/or American culture. This subscale is a short form of Birman and Tyler's (1994) Behavioral Acculturation Scale and consists of 22 items (4 of which were not included in the original measure and were created for this study). The items asked the respondents to indicated how often they speak English or Vietnamese and how often they participated in activities (e.g., parties, religious services, watch movies, read books) that they considered either American or Vietnamese. The means of the American behavior responses and the Vietnamese behavior responses were computed. Means closer to 4 indicate high participation in American or Vietnamese cultural activities.

The Cronbach alpha coefficient for the original subscale was .77 for the American behavior subscale and .84 for the Russian behavior subscale (Birman et al., 2002). The authors found support for the content validity of this subscale in that hypothesized relationships were endorsed. For example, American behavior was related negatively to perceived social support from Russian peers and positively related to perceived social support from American peers. Similarly, the Russian behavior was related positively to perceived social support from Russian peers and negatively related to perceived social

support from American peers. This study found an alpha coefficient of .84 for the American behavior acculturation scale and .87 for the Vietnamese behavior scale.

Finally, one multiple-choice item was added to assess acculturation in this questionnaire. The participants indicated which statement best described their overall identification with Vietnamese and American cultures (more American than Vietnamese, more Vietnamese than American, both cultures about equally, or neither culture). The respondents also had the option of writing in a unique answer if the provided response options did not adequately describe their experience.

Microsystem variables

Social Support

The Social Support Microsystems Scale (Seidman et al., 1995; see Appendix D) was used to measure social support from parents, Vietnamese peers, and American peers. The scale consisted of 36 items. The first 11 items list various family, extended family, and friends (Vietnamese and American) and asked the respondent to rate how helpful each of these people are in dealing with personal problems. The participant rated each person on a scale of 1 to 3, where 1 indicates "not at all," and 3 indicates "a great deal." The second 11 items were in the same format and list the same people. However, this time the participant was asked to rate each person with regard to how helpful they are when the respondent needs "money and other things." The third section of the scale was consistent in format, however, the question read "How much fun do you have with the following people?" This measure was scored by computing the mean for Family Support, and Peer Support. The Family and Peer Support scales included items from the personal problems, money, and fun sections of the measure. A mean close to three indicated high

levels of parental and/or peer support. Three additional questions asked the adolescent to rate their teachers, guidance counselors, and principal/assistant principal with regard to how helpful they were at school. The mean was also computed for this scale, yielding a School Support score. The reported reliabilities among a sample of Russian immigrant adolescents were .82 for parents, .90 for Russian peers, and .87 for American peers (Seidman et al., 1995). Birman, Trickett, and Vinokurov (2002) used this measure in a study, and reported findings that were consistent with their hypothesis, lending support for the content validity of the Social Support Microsystems scale. They found that high acculturation to American culture related negatively to peer support from Russians and positively to American peer support. Those students that highly identified with Russian culture had a positive relationship with Russian peer support and a negative relationship with American peer support. The alpha coefficients for these subscales in the present study were .92 for the family support scale, and .84 for peer support.

Peer support for academics

This measure was used to measure how much students feel their peers support their academics (Peer Support for Academics, Fuligni, 1997; see Appendix E).

Adolescents rated the amount of academic support they receive from peers on 4 items, to which the participant responded on a 5 point Likert scale. An example item from this measure read, "Help each other with homework." A response of 1 represents "Almost never," and a response of 5 represents "Almost always." The responses on this scale were summed and a higher score indicated that students' perceived their peers to be highly supportive of their academics. The reported internal consistency reliability of this scale was .79 and the scale demonstrated adequate reliability among immigrant adolescents

from Latino, East Asian, Filipino, and European backgrounds, with α 's ranging from .74 to .81 (Fuligni, 1997). Fuligni (1997) theorized that immigrant students would experience high amounts of peer support regarding academics. His findings were that immigrant students and 2^{nd} generation students experienced more peer support regarding academics than 3^{rd} generation students, lending support for the validity of his measure in capturing peer support for academics.

Perceived Parental Attitudes

Two measures and a single item question were administered to assess the adolescents' perceptions of their parent's attitudes. These scales measured student perceptions of their parents' values of academic success and parental expectations, and a single question assessed adolescents' perceptions of how much schooling parents' want for them.

Parental value of academic success. The first instrument assessed the adolescents' perception of parents' value of academic success (Parental Value of Academic Success, Fuligni, 1997; see Appendix F). Adolescents rated the importance of six items to their parents on a 5-point Likert scale, where response options ranged from 1, "not important to my parents" to 5, "very important to my parents." An example of an item from this scale read, "Getting an 'A' on almost every test." Responses on this scale were summed and higher responses indicated that the adolescent perceived their parent(s) to highly value their academic success. Fuligni (1997) reported internal consistency reliability for this scale as .82 and this scale was found to be equally reliable among immigrant adolescents from Latino, East Asian, Filipino, and European backgrounds,

with α 's ranging from .78 to .84 (Fuligni, 1997). In the present study, the alpha for this scale was .86.

Parental expectations. This scale measured adolescents' perceptions regarding parents' academic expectations for them (Parental Expectations, Fuligni, 1997; see Appendix G). Participants rated their parents' expectations to four items on a 5 point Likert scale ranging from 1, "almost never," to 5, "almost always." An example of an item from this measure was "Your parents expect you to be one of the best students in the class." Scores on this scale were summed and higher scores indicated that students' perceived their parents to hold high academic expectations for them. The internal consistency reliability reported for this scale was .77. This scale was found to demonstrate adequate reliability among immigrant adolescents from Latino, East Asian, Filipino, and European backgrounds, with α's ranging from .63 to .82 (Fuligni, 1997). In the present study, the alpha coefficient for this scale was .76.

Parental educational aspiration. A single question was used to assess student perceptions of their parents' aspirations for the students' education (Parental Educational Aspiration, Fuligni, 1997; see Appendix H). The question read "How far would your parents like you to go in school?" There were five response options, which are: 1, "Finish some high school," 2, "Graduate from high school, 3, "Graduate from a 2-year college," 4, "Graduate from a 4-year college," and 5, "Graduate from a law, medical, or graduate school." This question was used in a study of the educational experiences of immigrant adolescents from Latino, East Asian, Filipino, and European backgrounds. Fuligni (1997) theorized that students from immigrant families would experience high levels of perceived parental attitudes (parental value of academic success, parental expectations,

and parental educational aspiration). His findings were supportive of his theory, subsequently lending support for the validity of these three measures in measuring perceived parental attitudes in immigrant students. First and second generation American students perceived their parents to value academics more highly and have higher educational expectations and aspirations for them than did third generation American students.

Mesosystem variables

Intergenerational Conflict

The content of disagreements between adolescents and their parents was measured using the Problem Solving Checklist (Reuter & Conger, 1995; see Appendix I). The scale consists of 30 items that were measured on a 5-point Likert scale, with 0 representing "never" and 4 representing "all the time." Participants were asked to circle the response that indicated how they disagree or get upset with their parents with regard to 30 topics. Examples of topics are money, choice of friends, dating and discipline. An item was added at the end of the measure that asked respondents to include other topics that were a source of disagreement between them and their parents. The adolescents then indicated how often they and their parents disagree on the topic. The measure can be scored to assess the number of topics of conflict by summing affirmative responses. The degree of conflict occurring around the topic can be assessed by looking at the rating. A degree of conflict experienced by the sample of adolescents can be assessed by computing the mean rating for the topic of interest. A mean close to 4 indicated high levels of conflict.

A previous version of the Problem Solving Checklist was used in a longitudinal study, and completed by adolescents and their parents in the Midwest. The measure contained 20 items and the authors reported the internal consistencies to range from .66 to .93 (Rueter & Conger, 1995). A more recent version of the Problem-Solving Checklist contains 27 items, and has a reported alpha reliability coefficient of .84 (Buchanan, 2000). In a dissertation study on Russian adolescents, the alpha reliability coefficient was found to be .89 (Buchanan, 2000). The current version of the measure was updated to include topics of choice of college, choice of career, and moving out of parents' homes. In the present study of Vietnamese adolescents, an alpha coefficient of .91 was found. Rueter and Conger (1995a) found intergenerational conflict to be predictive of reduced warm interactions between the parents and their children. They also found intergenerational conflict to account for variance over and above how warm their interactions were in year one of the study. These findings lend support for the content validity of this measure.

Dependent Variables

Sense of Belonging in School

The Psychological Sense of School Membership Scale (PSSM; Goodenow, 1993b; see Appendix J) was used to assess school belonging. The scale includes 18 items and measures adolescents' perceptions of acceptance, inclusion, and being liked, as well as encouragement for participation. Some example items were, "I feel like a real part of this school," "I am treated with as much respect as other students," and "People here notice when I'm good at something." Adolescents responded to the items on the PSSM on a 5 point Likert scale ranging from 1, "not at all true," to 5, "completely true." This

scale yielded a total scale score that was obtained by reverse scoring appropriate items, then computing the mean for the scale. Mean scores closer to 5 indicated high feelings of school belonging. Goodenow (1993b) developed this measure with a sample of urban and suburban students and reported an alpha coefficient of .88. The author also reported support for construct validity. For example, suburban students scored higher on school sense of belonging than urban students, and girls scored higher than boys in general. These results were hypothesized by the author because suburban students live in more homogenous communities, thus increasing their sense of belonging. Also some literature suggests that school aged girls tend to feel more connected to school than do boys (Goodenow, 1993b). In the present study with Vietnamese adoelscents, an alpha of .79 was found.

Adolescents' Academic Attitudes

The students' attitudes towards academics were measured using one scale plus three additional questions. Adolescents rated the importance of academic success on six items. Adolescents responded on a 5 point Likert scale ranging from 1, "not important," to 5, "very important." The scale measured how important academic success was to the student (Adolescents' Academic Attitudes; Fuligni, 1997; see Appendix K). An example of an item from this scale was "Getting good grades." Scores on this scale were summed and higher scores indicated that students highly valued academic success. The reported internal consistency reliability for this scale was .86 and the scale was found to be similarly reliable in immigrant adolescents from Latino, East Asian, Filipino, and European backgrounds, with α 's ranging from .84 to .90 (Fuligni, 1997). As hypothesized, Fuligni (1997) found that first generation immigrants scored higher on this

measure than third generation students, thus lending support to the validity of this scale. An alpha coefficient of .87 emerged for this scale in the present study on Vietnamese adolescents.

Three additional questions were used to assess adolescent attitudes towards academics (Academic Adjustment, 1997; see Appendix E). These questions were also asked by Fuligni (1997) in his research on academic achievement of immigrant adolescents. The first two questions were multiple choice and asked how far the student would like to go in school and how far the student expected to go in school. The response options for both of these questions range from "Finish some high school," to "Graduate from a law, medical, or graduate program." Finally, the last question in this section was open-ended and asked the student how much time she/he spent studying on a typical weekday, a typical Saturday, and a typical Sunday. Fuligni (1999) used this scale to examine the attitudes towards family obligations of 800 high school students of Filipino, Chinese, Mexican, Central and South American, and European backgrounds. The results showed correlations between this measure and the dependent variable in this study, and provided support for the validity of this measure. Study time was positively correlated with current assistance, respect, and future obligations. Additionally, educational aspirations and educational expectations were each related positively to current assistance and respect.

Analyses

Descriptive analyses were run on all variables in this study. Correlations were performed to assess the relationships between individual, microsystem, and mesosystem level variables. Significant findings will be interpreted at the .01 level to guard against

Type 1 error. Also, two hierarchical multiple regression analyses were computed. The first multiple regression entered individual (e.g., gender, acculturation, self-esteem), microsystem (e.g., social support, peer support for academics, perceived parental attitudes) and mesosystem (e.g., intergenerational conflict) variables into a regression equation to predict adolescent academic attitudes. The second multiple regression equation used the same individual, microsystem, and mesosystem variables to predict school sense of belonging. In both regressions, individual variables were entered first, followed by microsystem and mesosystem variables. This order of entry was chosen because individual variables were theorized to exert the most direct influence in the client's life (and thereby on the dependent variables), while microsystem, and mesosystem variables were thought to exert less direct influence. Moreover, temporally, the individual variables preceded the microsystem and mesosystem variables.

We considered analyzing these data using structural equation modeling and met with a statistical consultant to pursue this possibility (Chip Denman, personal communication, August 12, 2004). After reviewing the data and the correlations among the variables, the consultant recommended that we not use structural equation modeling because of the lack of significant and robust intercorrelations among variables that would comprise the latent factors. He suggested that we run post hoc principal components analyses to determine if any components emerged among the variables in this study. Two possible components were identified through this analysis with the scores on the American acculturation subscale and the Vietnamese acculturation subscale loading together. We considered creating total scores for each acculturation grouping, which has not been done previously. Psychometric data for newly developed combined scores were not available. Thus, given

the information that the individual scores on the scales provided and the lack of extremely robust multicollinearity among the subscales, we decided to keep the individual subscales in the analyses.

RESULTS

The results of the bivariate correlation to assess the relationships between individual, microsystem, and mesosystem level variables can be found in Table 1. Means, standard deviations, range, and reliabilities of all variables are also reported in Table 1.

Description of sample

Individual variables

In general, the adolescents in this study reported very strong abilities in speaking and understanding English and reported frequent participation in "American" activities, such as watching American movies, listening to American music, and speaking English. These adolescents also reported strong identification with being American.

With regard to Vietnamese acculturation, these adolescents reported average abilities in speaking and understanding Vietnamese as well as an average level of participation in "Vietnamese" activities, (i.e., these students sometimes watch Vietnamese movies, listen to Vietnamese songs, speak Vietnamese and eat Vietnamese food). However, these students strongly identified as Vietnamese. Finally, as a group, this sample exhibited moderate levels of self-esteem.

Microsystem variables

Overall, this sample reported moderate levels of family social support, peer social support, and support from teachers, principles, and guidance counselors. Additionally, these adolescents reported moderately high academic support from their peers, such as help with homework or studying together for tests.

These students perceived that their parents valued education very strongly. They also reported that their parents had moderately high expectations for them to perform

well in school. Finally, these students perceived their parents as wanting them to complete the highest levels of education (i.e., college or graduate school).

Mesosystem variables

Based on item means, this sample of adolescents endorsed average levels of conflict with their parents.

Dependent variables

These students tended to very strongly value their own education and school performance. These adolescents also reported moderate levels of sense of belonging to their schools.

Correlational Analysis

Individual variables

Gender had a small positive relationship to school sense of belonging and a moderate positive relationship to adolescent academic attitudes, with females being more likely to feel a sense of belonging schools, and even more likely to hold strong academic attitudes. American language acculturation demonstrated small positive associations with parental value of academic success and parental aspiration and moderate positive correlations with parental expectations. American identity acculturation was correlated slightly and positively with peer academic support, parental value of academic success and parental educational aspiration. American behavioral acculturation also exhibited small positive relationships with peer academic support, parental expectations, and intergenerational conflict. Vietnamese language acculturation had small relations with family social support, school social support, and adolescent academic attitudes.

Vietnamese identity acculturation showed moderate positive relations with peer social

support and small associations with family social support, and peer support for academics. Vietnamese behavioral acculturation had small relations with family support, while exhibiting moderate sized relationships with peer social support and school social support. Finally, self-esteem and school belonging demonstrated a small positive relationship.

Microsystem variables

Peer social support had a small association with intergenerational conflict and school belonging. School support was related slightly and positively to adolescent attitudes and school sense of belonging. Peer support for academics demonstrated a small positive correlation with intergenerational conflict and adolescent academic attitudes, and was moderately positively correlated with school sense of belonging. Parental value of academic success had a small positive relationship with intergenerational conflict, a moderate positive relationship with school sense of belonging, and had a large positive relationship with adolescent academic attitudes. Parental expectation was moderately and positively related to intergenerational conflict and had a small positive relationship with school belonging and adolescent academic attitudes. Finally, parental educational aspiration and adolescent academic attitudes were correlated slightly in the positive direction and intergenerational conflict was associated slightly and positively with school belonging.

Regression Analysis

Two hierarchical multiple regression analyses were computed to assess the proportion of variance accounted for by individual, microsystem, and mesosystem variables in the prediction of school sense of belonging and adolescent academic

attitudes.

Prediction of school belonging

Collectively, individual, microsystem, and mesosystem variables accounted for 34% of the variance in the prediction of school sense of belonging (see Table 2). The individual variables as a group explained 18% of the variance and the microsystem variables accounted for an additional 13% of variance. The mesosystem variable, intergenerational conflict, contributed to the explanation of 3% of the variance over and above the variance accounted for by the individual and microsystem variables, although this contribution was not significant at the .01 level. When all variables were entered into the regression equation, those that contributed unique variance to the prediction of school sense of belonging included self-esteem, and peer support for academics. At the .05 level of significance, intergenerational conflict also was predictive of school sense of belonging.

Prediction of adolescent academic attitudes

Individual, microsystem, and mesosystem variables together accounted for 51% of the variance in the prediction of adolescent academic attitudes (see Table 3).

Individual variables collectively accounted for 24% of the variance and the microsystem variables accounted for an additional 27% of variance. The mesosystem variable, intergenerational conflict, did not contribute over and above the variance accounted for by the individual and microsystem variables. When all variables were entered into the equation, gender, social support from teachers, principals, and guidance counselors, and parental value of academic success contributed unique variance to the prediction of academic attitudes. Two additional variables (i.e., Vietnamese language acculturation and

American behavioral acculturation) also approached the .01 level of significance, both demonstrating significance at the .05 level.

DISCUSSION

The ecological model tested in this study revealed that a robust portion of variance in Vietnamese adolescents' attitudes towards academic performance and their sense of belonging at school can be explained through individual and microsystem level variables. The results of this study are informative in understanding the academic experiences of these adolescents and are useful in suggesting potential interventions that might improve the academic conditions for Vietnamese students.

School sense of belonging

As a whole, the adolescents in this study reported moderate levels of school sense of belonging. Students felt somewhat connected to their academic institutions, and fairly valued by their teachers and peers. Perhaps these students felt connected to their schools because they highly valued their own education, thus their values were consistent with those of their teachers and school administrators. Teachers and some peers might respond favorably to students who are vested in their own education.

The levels of school belonging reported by these students was similar to or somewhat higher than the levels previously reported by impoverished, urban African American and White schoolchildren from a school district in which White students were a minority (Goodenow & Grady, 1993), and reported levels of school belonging more similar to the levels reported by impoverished, urban Hispanic students. Also consistent with Goodenow and Grady's (1993) findings, girls reported significantly more school belonging than boys.

Perhaps the students in this study felt different from other students because they comprised an ethnic and cultural minority group, which might help explain why they did

not report high levels of connectedness to their schools. Students might also experience racism from teachers, other students, or institutionally. Hsia and Peng (1998) theorized that Asian American students might tend to feel more disengaged from school than other students, partially through differences in involvement in extracurricular activities. While sports such as football and basketball are often popular in American schools, Asian Americans tend to be more active in academic clubs or ethnic organizations, which might distance them from the larger student body. The males in this study were less likely to feel connected to schools than females. This might be due to the more negative stereotypes associated with Asian American men. Consistent with this finding, Leong (1998) suggested that Asian American males tend to feel a strong sense of loneliness and isolation, which might contribute to or result from of a lack of school belonging. Future research should investigate the ways in which Vietnamese boys and girls experience school membership differently, and what factors explain these differences.

Individual and microsystem variables each accounted for significant variance in school sense of belonging. As predicted, individual variables together accounted for the largest proportion of the variance, followed by microsystem variables. However, of the individual level variables, only self esteem emerged as a unique predictor of perceptions of school connectedness. Specifically, higher self-esteem was predictive of a greater sense of acceptance at school. Perhaps students who felt better about themselves tended to be more outgoing, participate in more school activities, and be friendly with more people, thus increasing their school belonging. It is equally likely, however, that students who feel more respected and accepted by their peers and teachers also feel more positively about themselves. Another explanation for the relationship between self-

esteem and school membership might be that those students who hold more positive feelings about themselves might be more likely to interpret others' behavior as positive whereas those with lower self-esteem might interpret others' behavior as excluding or isolating, thus influencing how they responded to the school belonging instrument.

Past research found similar positive relationships between self-esteem and academic achievement (Davies & Brember, 1999, Wiggins & Schaltz, 1994). However, no previous studies examined the relationship between self-esteem and school sense of belonging. Future research should examine the direction of the relationship between self-esteem and school connectedness among Vietnamese American students.

One microsystem variable, peer support for academics, also emerged as contributing unique variance to the prediction of school belonging. Specifically, the more peer support the students perceived, the higher their sense of school membership. Perhaps because these students as a group valued their education very highly, they felt more connected to school if they had a peer group that shared these values. Alternatively, students who felt that they belonged to their school might seek out positive peer groups. This result is consistent with Goodenow and Grady's (1993) finding that the more students' perceive their friends as valuing schoolwork, the more students are likely to feel a sense of belonging to school.

Several microsystem variables were correlated positively with school belonging.

These include peer social support, school social support, peer academic support, parental value of academic success and parental expectations. Relationships with individuals within the school are crucial to feeling as if you are a valued member of the school.

Perhaps students who have relationships with peers and teachers tend to feel more a part

of the school culture. However, students who feel accepted by the school culture might be more likely to seek out relationships with peers and teachers.

Parental value of academic success and parental educational aspirations also were associated with school belonging. Perhaps parents that highly value academics encourage their children to be more involved with after school activities and other school programs. It is also possible that these parents developed relationships with teachers and principals, which in turn helped the student feel more valued and accepted at school as well. Another possibility is that these parents have encouraged their children to build relationships with other children whose families highly value education, thus creating a social network for these adolescents. Future research should examine the mechanism by which parental value for academic success might help students feel more connected to their school environments.

Finally, the mesosystem variable, intergenerational conflict, did not contribute variance above and beyond the individual and microsystem variables. The correlation table shows that intergenerational conflict was associated with several individual and microsystem variables including American behavior acculturation, peer social support, peer academic support, parental value of education, and parental expectations. These intercorrelations suggested that parent-child conflict shares variance with these variables. Contention between parents and adolescents might not have emerged as a significant predictor of academic attitudes because it was entered last into the regression, and thus, most of the variance it accounts for was already explained by other variables.

Adolescent Academic Attitudes

Collectively, this group of adolescents strongly valued academic achievement.

The method of data collection employed in this study could explain these results. Many of the students were recruited through the social networks of the Vietnamese college student research assistants, thus, the participants did not include a random sample of adolescents. The research assistants are educationally oriented, and therefore, it is possible that participants recruited through their social networks might be more educationally oriented than the average Vietnamese adolescent.

Another reason this group of students might have especially strong academic values might be attributable to another selection issue. Specifically, because these students are under the age of 18, they could only participate in this study if they obtained parental permission. It is possible that those parents who strongly valued academics allowed and encouraged their children to participate in this study. The high correlation between parental value of academic success and adolescents' attitudes towards academics supports this possibility.

Individual and microsystem level variables accounted for approximately half of the variance in academic attitudes. The one individual variable that provided unique variance to this prediction is gender. To clarify, girls tended to value their educational success more highly than did boys. This finding is somewhat consistent with Leong and Gim-Chung's (1995) suggestion that Asian American girls, as a group, tend to have high educational aspirations for themselves and that their parents tend to share these aspirations. However, Leong and Gim-Chung (1995) did not compare girls' aspirations to that of boys, and also did not conduct an empirical investigation of this hypothesis.

Because the research investigating gender differences in the educational experiences of Asian American youth has been very scant and has produced mixed findings, future

research should examine the factors that contribute to this discrepancy between how Vietnamese girls and boys value their education.

Two microsystem level variables, school social support and parental value of academic success, also surfaced as unique predictors of academic attitudes. More specifically, those students who felt supported by their teachers, principals, and guidance counselors also valued their own academic progress. School social support might be related to adolescent academic attitudes because if teachers, guidance counselors, and principals are helpful to students, motivation to succeed in school could be cultivated. These people might be particularly effective in encouraging students to succeed and in passing on their value of education because they interact with the student in the academic environment. Alternatively, those students with more positive attitudes about their academics might be more likely to be friendly with teachers, guidance counselors, and principles. These students might initiate relationships with these administrators more often than students who are less focused on school.

Parental value of academic success also was predictive of adolescent academic attitudes; as parental values of academics increased, the adolescents' educational values also increased. Parents who value academics might talk to their children about the importance of education and how academic achievement might enable their families to adapt more easily to life in the United States. These parents might encourage their children to complete their homework and might tutor or find tutoring for the adolescents. Although research has not specifically looked at the congruence between parental value of education and adolescents' value of education, McWhirter, Hackett, and Bandalos (1998) found that parental support was related to higher academic self-expectations

among Mexican-American girls. Future research should investigate the relationship between various types of parental valuing of academics (i.e., academic encouragement, instrumental support with schoolwork, parental relationships with educators, etc) and student value of academics.

Finally, as was the case in the prediction of adolescent academic attitudes, the mesosystem level variable, intergenerational conflict, did not contribute any variance above and beyond the individual and microsystem variables. The idea postulated above about the role of intergenerational conflict in the prediction of school belonging might also apply to the prediction of academic attitudes; intergenerational conflict might share much variance with other microsystem level variables and thus not account for significant variance over and above those variables.

Intergenerational conflict did not emerge as an important predictor of adolescent academic attitudes and school sense of belonging. Perhaps this measure did not have the hypothesized relationship with these variables because the measure was not best suited for middle school students. This measure of conflict contains items that are more salient to high school students than middle school students. Some examples are items that ask about conflict around use of the family car, moving out, choice of college, choice of career, and outside employment. These are certainly not relevant items for middle school students. Other items such as conflict around alcohol use and dating might be relevant for some middle school students, but is probably not a large source of conflict at this age.

Other findings

Although acculturation did not predict adolescent academic attitudes or school belonging, some interesting correlations between acculturation and other variables did

emerge. First, American language, behavior, and identity acculturation were each positively related to self-esteem. The participants in this study were all in middle school, which is a time when students are greatly influenced by their peers and value being accepted (Ryan, 2001). Because these students are ethnic and cultural minorities in their schools, acculturation to American culture is likely to facilitate acceptance from peers and a sense of self-esteem.

Vietnamese language acculturation was positively related to adolescent academic attitudes. Thus, those students who had more Vietnamese language skills, also were more likely to value their education. This is consistent with Bankston and Zhou's (1995) findings that Vietnamese language proficiency was related to greater performance in school, and inconsistent with Lese and Robbins' (1995) finding that this relationship did not exist. Also, the fact that no other relations emerged between acculturation and academic variables in this study is inconsistent with Nguyen et al.'s (1999) study in which they found that American acculturation positively predicted school performance, whereas Vietnamese acculturation did not.

Vietnamese and American acculturation related slightly and positively to several of the independent variables. Generally, when the youth were more acculturated toward American language, identity, and behavior, they experienced greater parental value and expectations of academic success. In contrary, adolescents who were more acculturated toward Vietnamese language, identity, and behavior experienced more family support, but fewer academic expectations or messages regarding the value of their academic success. An explanation for this finding could be that the more a Vietnamese adolescent is able to identify and communicate with the parents, the more they are able to feel

supported by their family. Previous research suggested that amongst Asian Americans, high parental values and expectations towards academic success may yield stronger academic attitudes in their children, but also may create stress and depression among these students. In this study, those who experienced their parents to value their own academic success also reported intergenerational conflict.

Research has yielded very conflicting findings with regard to the relationship between acculturation and academic experiences. One reason for this might be because no standard, multiple dimensional method exists for measuring acculturation. Perhaps our current methods are not adequately capturing the phenomena.

Ideas for interventions

The results of this study suggested that there are several areas in which interventions might help enhance students' sense of school belonging and their attitudes toward academics. Peer support for academics was predictive of both school belonging and adolescent academic attitudes. An after-school program for adolescents where these students help each other do their homework and study for exams might assist students in developing a peer network that values academics. The program should also integrate fun team building activities that would help students make friends and identify with these peers.

Self-esteem was also predictive of school sense of belonging. This after-school program described above should engage students in fun and interesting academic activities in which the students are able to experience success. The purpose of this would be to increase students' confidence and esteem.

Parental value of academic success was predictive of adolescent academic

attitudes. A potential intervention to enhance parents' value of academic success and students' perceptions of their parents' academic values could be creating workshops for parents and adolescents. These workshops would focus on educating immigrant parents and their children on what it takes to succeed in American school systems. The program also could involve a parent/child dialogue in which students educate parents regarding some of the challenges they might experience at school and how to support them through these challenges. This workshop might be useful in increasing parental support and educated parents might be more able to promote academic achievement in their children's education.

Limitations

One limitation of this study was that the data were collected through the social networks of the Vietnamese research assistants who helped with this study. All participants were recruited from Montgomery County, Maryland, which is a wealthy county with a well respected school system. This sample might over-represent educationally focused, privileged Vietnamese adolescents. Perhaps seeking a broader range of adolescents from the less privileged counties surrounding Montgomery County would provide a more complete picture of Vietnamese adolescent experiences.

A related shortcoming was that the results of this study could only be generalized to Vietnamese adolescents living in Montgomery County, Maryland. Thus, any interventions created based on these findings would only be appropriate for this subset of Vietnamese adolescents.

Another weakness of this study was that the school support subscale (Seidman, 1995) demonstrated relatively poor reliability in this study. However, the measure was

retained due to its relevance to the research questions.

A final disadvantage was that the measures were self-report and data were collected only from the adolescents. Adolescents reported how much they *perceived* their parents to value education, and what they *perceived* their parents to expect of them academically. The adolescents' perceptions might be related to other individual factors that are not related to how much the parent actually expects from the child or values education.

Conclusion

To conclude, the Vietnamese adolescents in this study experienced moderate levels of feelings of school belonging and strong valuing of academics. Many of the variables that emerged as contributing to their academic experiences are possible sources of intervention. Psychologists can play a crucial role in optimizing the educational experiences of Vietnamese youth by collaborating with Vietnamese communities and schools to design effective and realistic interventions aimed especially at enhancing feelings of school belonging. Continued research is needed to advance understanding regarding the difficulties Vietnamese immigrant and refugee communities encounter when adapting to life in the United States and the strengths that enable their success. Counseling psychologists can and should make a difference by contributing to knowledge regarding this rarely studied group of immigrants and their families.

Figure 1. Illustration of Bronfenbrenner's (1977) Theory of the Individual in the

Environment

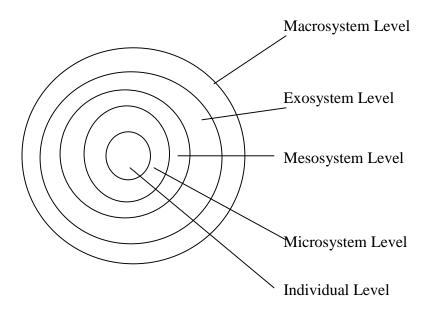
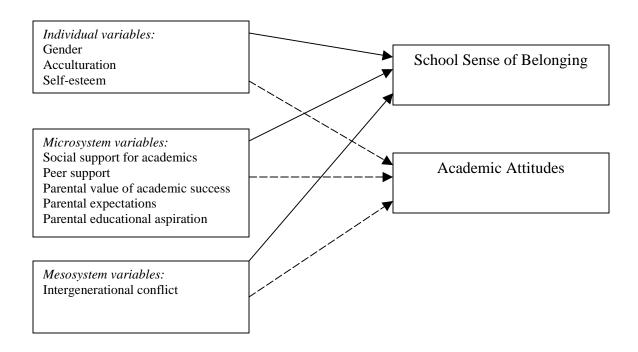


Figure 2. The role of psychosocial variables, support, and intergenerational conflict in predicting school sense of belonging and academic attitudes



Appendix A: Demographic Questionnaire

We would like to begin by asking some questions about you.

Please indicate:
1. The name of the school you attend
2. Your grade
3. Your gender: a. Maleb. Female
4. Your birth date (month and year): Month: Year: 19
5. When did you arrive in the U.S.: Month: Year: 19
6. Are you currently enrolled in ESOL? YesNo
If Nohave you ever been enrolled in ESOL? YesNo
If Yes , for how long were you enrolled in ESOL? YearsMonths
7. Do you work? YesNo
If yes , how many hours a week?
8. How did you arrive in the United States? 1) Was born here 2) With parents 3) Other (Please specify)
9. If you arrived with your parents, how did you parents arrive in the United States? 1) By boat 2) As an HO 3) Because they had other family members here 4) As an unaccompanied minor 5) Because he/she was Amerasian 6) Other (Please specify)
10. Was your father ever in a re-education camp (Communist prison)?YesNo
11. Are you a U.S. citizen?Yes No

Appendix B The Language, Ability, and Behavioral Acculturation Scale

(LIB; Birman & Trickett, 2001)

We are interested in learning how living in the U.S. has affected your language abilities. Please circle the response that corresponds with your language ability.

Not at all How would you rate your ability to speak <i>English</i> :		Very well, like a native		
Tiow would you fall your ability to speak English.				
1. at school	2	3	4	
2. with American friends	2	3	4	
3. on the phone	2	3	4	
4. with strangers1	2	3	4	
5. overall	2	3	4	
How well do you understand <i>English</i> :				
6. on TV or at the movies	2	3	4	
7. in newspapers or in magazines	2	3	4	
8. on the phone	2	3	4	
9. overall	2	3	4	
How well can you write in <i>English</i> ?	2	3	4	
How would you rate your ability to speak <i>Vietnamese</i> :				
10. with family	2	3	4	
11. with Vietnamese friends	2	3	4	
12. on the phone	2	3	4	
13. with strangers1	2	3	4	
14. overall	2	3	4	
How well do you understand Vietnamese:				
15. on TV or at the movies1	2	3	4	
16. in the newspapers1	2	3	4	
17. on the phone1	2	3	4	
18. overall1	2	3	4	

We are interested in learning about your identification with your ethnic background.

We realize that some of you also have a background other than Vietnamese, such as

Chinese or Hmong. Please answer the questions below concerning your ethnic identity.

Not:	at all	Very Muc		
1. I think of myself as being <i>American</i>	2	3	4	
2. I feel good about being <i>American</i> 1	2	3	4	
3. Being <i>American</i> plays an important part in my life1	2	3	4	
4. I feel that I am part of <i>American</i> culture1	2	3	4	
5. If someone criticizes <i>Americans</i> , I feel they are criticizing				
me1	2	3	4	
6. I have a strong sense of being <i>American</i> 1	2	3	4	
7. I am proud of being <i>American</i>	2	3	4	
8. I think of myself as being <i>Vietnamese</i>	2	3	4	
9. I feel good about being <i>Vietnamese</i>	2	3	4	
10. Being <i>Vietnamese</i> plays an important part in my life1	2	3	4	
11. I feel that I am part of <i>Vietnamese</i> culture1	2	3	4	
12. If someone criticizes a <i>Vietnamese</i> , I feel they are				
criticizing me1	2	3	4	
13. I have a strong sense of being <i>Vietnamese</i> 1	2	3	4	
14. I am proud that I am <i>Vietnamese</i> 1	2	3	4	

Appendix B - cont'd.

We are interested in how much you take part in American and Vietnamese activities.

Please circle the response that indicates to what extent the following statements are true about things that you do.

How much do you speak <i>English</i> :	Not at all		Very muc	h
1. at home?	1	2	3	4
2. at school?	1	2	3	4
3. with friends?	1	2	3	4
How much do you:				
4. read <i>American</i> books, newspapers, magazine?	1	2	3	4
5. listen to <i>American</i> songs?	1	2	3	4
6. watch American movies (on TV, VCR, etc)?	1	2	3	4
7. eat <i>American</i> food?	1	2	3	4
8. have <i>American</i> friends?	1	2	3	4
9. attend <i>American</i> clubs or parties?	1	2	3	4
10. participate in <i>American</i> community activities?	1	2	3	4
11. participate in <i>American</i> religious services?	1	2	3	4
How much do you speak Vietnamese:				
12. at home?	1	2	3	4
13. at school?	1	2	3	4
14. with friends?	1	2	3	4
How much do you:				
15. read <i>Vietnamese</i> books, newspapers, or magazines?	1	2	3	4
16. listen to <i>Vietnamese</i> songs?	1	2	3	4
17. watch <i>Vietnamese</i> movies (on TV, VCR, etc)?	1	2	3	4
18. eat <i>Vietnamese</i> food?	1	2	3	4
19. have <i>Vietnamese</i> friends?	1	2	3	4
20. attend <i>Vietnamese</i> clubs or parties?	1	2	3	4

Appendix B – cont'd.

How much do you:	Not at all		ll Very muc	
21. participate in <i>Vietnamese</i> community activities?	1	2	3	4
22. participate in <i>Vietnamese</i> religious services?	1	2	3	4
The following statements describe how you think of yourse respect to the Vietnamese and American cultures. Pleas of yourself with respect to these two cultures. If none apple explain how you see yourself.	e choos	se the l	oest des	scription
 a. I consider myself more Vietnamese than American b. I consider myself more American that Vietnamese. c. I feel Vietnamese and American about equally. d. I feel I don't really belong to either Vietnamese. e. None of the above (Please explain) 	ese ove	rall.	culture	.

Appendix C: Rosenberg Self-Esteem Scale (RSSS; Rosenberg, 1965)

Please indicate whether you agree with the following statements:

Stron disa	gly gree	Disagree	Agree	Strongly agree
1. On the whole, I am satisfied with myself	1	2	3	4
2. At times I think I am no good at all	1	2	3	4
3. I feel I have a number of good qualities	1	2	3	4
4. I am able to do most things as well as most other people	1	2	3	4
5. I feel I do not have much to be proud of	1	2	3	4
6. I certainly feel useless at times	1	2	3	4
7. I feel that I'm a person of worth, at least on an equal plane with others	1	2	3	4
8. I wish I could have more respect for myself	1	2	3	4
9. All in all, I am inclined to feel that I am a failure	e1	2	3	4
10. I take a positive attitude toward myself	1	2	3	4

Appendix D The Social Support Microsystems Scale (Seidman, 1995)

The following questions ask about your relationships with different people in your life.

Please circle the number that corresponds to your answer for each question.

How helpful are each of the following people when you have a *personal problem*?

	Not at all	Somewhat	A great deal
1. Group of close Vietnamese friends	1	2	3
2. Vietnamese kids your age	1	2	3
3. Group of non-Asian friends	1	2	3
4. Group of Asian friends	1	2	3
5. Father	1	2	3
6. Mother	1	2	3
7. Grandmother(s)	1	2	3
8. Grandfather(s)	1	2	3
9. Aunt(s)	1	2	3
10. Uncle(s)	1	2	3
11. Cousin(s)	1	2	3

How helpful are each of the following people when you *need money and other things*?

	Not at all	Somewhat	A great deal
1. Group of close Vietnamese friends	1	2	3
2. Vietnamese kids your age	1	2	3
3. Group of non-Asian friends	1	2	3
4. Group of Asian friends	1	2	3
5. Father	1	2	3
6. Mother	1	2	3
7. Grandmother(s)	1	2	3
8. Grandfather(s)	1	2	3
9. Aunt(s)	1	2	3
10. Uncle(s)	1	2	3
11. Cousin(s)	1	2	3

Appendix D - cont'd.

How much do you have *fun* with the following people?

	Not at all	Somewhat	A great deal
1. Group of close Vietnamese friends	1	2	3
2. Vietnamese kids your age	1	2	3
3. Group of non-Asian friends	1	2	3
4. Group of Asian friends	1	2	3
5. Father	1	2	3
6. Mother	1	2	3
7. Grandmother(s)	1	2	3
8. Grandfather(s)	1	2	3
9. Aunt(s)	1	2	3
10. Uncle(s)	1	2	3
11. Cousin(s)	1	2	3

In general, how *helpful* are the following people at school?

	Not at all			Very Helpf		
1. Teachers	1	2	3	4	5	
2. Guidance Counselors	1	2	3	4	5	
3. Principal/Assistant Principals	1	2	3	4	5	

Appendix E: Peer Support for Academics (Fuligni, 1997)

How often do you and your friends do the following?		ost er	Almost Always		
1. Help each other with homework1	2	3	4	5	
2. Share class notes and materials1	2	3	4	5	
3. Study together for tests1	2	3	4	5	
4. Encourage each other to do well	2	3	4	5	

Appendix F:
Parental Value of Academic Success (Fuligni, 1997)

This section is about educational expectations. Please answer the following questions regarding your and your parents' expectations.

How important are the following to your parents?		nt		impo	Very rtant
1. You do well in school	1	2	3	4	5
2. You get good grades	1	2	3	4	5
3. You go on to college after high school	1	2	3	4	5
4. You get an "A: on almost every test	1	2	3	4	5
5. You are one of the best students in the class	1	2	3	4	5
6. You go to the best college after high school	1	2	3	4	5

Appendix G: Parental expectations (Fuligni, 1997)

Н	ow often do you feel the following?	Almost Never			Almost Always	
1.	Your parents would be disappointed if you did not get very high grades	1	2	3	4	5
2.	Your parents would be disappointed if you did not get mostly A's on your report card	1	2	3	4	5
3.	Your parents expect you to be one of the best students in the class		2	3	4	5
4.	Your parents would not be satisfied if you received a B+ on a test	1	2	3	4	5

Appendix H: Parental educational aspiration (Fuligni, 1997)

How far would your parents like you to go in school?	
1) Finish some high school	
2) Graduate from high school	
3) Graduate from a 2-year college	
4) Graduate from a 4-year college	
5) Graduate from a law, medical, or graduate school	

Appendix I Problem Solving Checklist (Reuter & Conger, 1995)

Please circle the number, which indicates *how often you and your parent(s)* disagree or get upset with each other about the following topics:

No	ever			A	the time
1. Money	0	1	2	3	4
2. School grades/homework	.0	1	2	3	4
3. Choice of friends	.0	1	2	3	4
4. How I spend my free time	0	1	2	3	4
5. Curfews	0	1	2	3	4
6. Chores at home	0	1	2	3	4
7. School activities	.0	1	2	3	4
8. Family time together	.0	1	2	3	4
9. Alcohol	.0	1	2	3	4
10. Drugs	.0	1	2	3	4
11. Tobacco	.0	1	2	3	4
12. Clothes and/or appearance	0	1	2	3	4
13. Movies/TV	0	1	2	3	4
14. Church/(church, temple)	0	1	2	3	4
15. Fighting with brothers/sisters	0	1	2	3	4
16. Dating	0	1	2	3	4
17. Outside jobs	0	1	2	3	4
18. Attitudes/respect	0	1	2	3	4
19. Discipline	0	1	2	3	4
20. Transportation to places or use of family car	.0	1	2	3	4
21. Eating	0	1	2	3	4
22. Lying	.0	1	2	3	4
23. Swearing, talking back	.0	1	2	3	4
24. Breaking rules	.0	1	2	3	4

Appendix I – cont'd:

]	Never			All the time
25. Activities with friends0	1	2	3	4
26. Trouble with the law	1	2	3	4
27. Troubles at school	1	2	3	4
28. Choice of college0	1	2	3	4
29. Choice of career	1	2	3	4
30. Moving out	1	2	3	4

Appendix J: The Psychological Sense of School Membership (PSSM; Goodenow, 1993b)

The following questions ask about your reactions to school. For each statement below, please mark the number which best represents how you feel, from 1 (not true at all) to 5 (completely true).

	Not at all true		C	omplet t	ely rue
1. I feel like a real part of this school	1	2	3	4	5
2. People here notice when I'm good at something	. 1	2	3	4	5
3. It is hard for people like me to be accepted here	. 1	2	3	4	5
4. Other students in this school take my opinions seriously	1	2	3	4	5
5. Most teachers in this school are interested in me	1	2	3	4	5
6. Sometimes I feel as if I don't belong here	1	2	3	4	5
7. There's at least one teacher or other adult in this school I can talk to if I have a problem	1	2	3	4	5
8. People at this school are friendly to me	1	2	3	4	5
9. Teachers here are not interested in people like me.	1	2	3	4	5
10. I am treated with as much respect as other student	ts 1	2	3	4	5
11. I feel very different from most other students here	e 1	2	3	4	5
12. I can really be myself at this school	1	2	3	4	5
13. The teachers here respect me	1	2	3	4	5
14. People here know I can do good work	1	2	3	4	5
15. I wish I were in a different school	1	2	3	4	5
16. I feel proud of belonging to this school	1	2	3	4	5
17. Other students here like me the way I am	1	2	3	4	5

Appendix K: Adolescents' Academic Attitudes (Fuligni, 1997)

How important are the following to you?	Not importar	nt	i	Very mportant
1. Doing well in school1	2	3	4	5
2. Getting good grades1	2	3	4	5
3. Going on to college after high school1	2	3	4	5
4. Getting an "A" on almost every test1	2	3	4	5
5. Being one of the best students in the class1	2	3	4	5
6. Going to the best college after high school1	2	3	4	5
How far would you like to go in school?				
1) Finish some high school				
2) Graduate from high school				
3) Graduate from a 2-year college				
4) Graduate from a 4-year college				
5) Graduate from a law, medical, or gradua	te school			
How far do you expect to go in school?				
1) Finish some high school				
2) Graduate from high school				
3) Graduate from a 2-year college				
4) Graduate from a 4-year college				
5) Graduate from a law, medical, or gradua	te school			
How much time do you spend studying on a typical	al			
1) Weekday				
2) Saturday				
3) Sunday				

Table 1

Bivariate Correlations Among Scales and Internal Consistency Estimates, Means, Standard Deviations, Actual Scale Ranges and Possible Scale Ranges of the Measured Variables

Measures	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Individual Variables																		
1. Gender	1.00																	
2. Am. Lang. Acc.	0.18	1.00																
3. Am. Id. Acc.	0.17	0.40*	1.00															
4. Am. Beh. Acc.	0.20	0.69*	0.51*	1.00														
5. Viet. Lang. Acc.	0.07	-0.31*	-0.15	-0.26*	1.00													
6. Viet. Id. Ac.	-0.02	0.22*	0.12	0.09	0.31*	1.00												
7. Viet. Beh. Acc.	-0.09	15	-0.05	-0.18	0.70*	0.40*	1.00											
8. Self-esteem	0.01	0.37*	0.24*	0.24*	-0.04	0.16	-0.02	1.00										
Microsystem Variables																		
9. Fam. Soc. Supp.	-0.09	-0.13	0.04	-0.09	0.25*	0.21*	0.26*	-0.05	1.00									
10. Peer Soc. Supp.	-0.06	0.14	0.12	0.13	0.15	0.32*	0.33*	0.08	0.26*	1.00								
11. School Soc. Supp.	0.02	-0.06	0.16	0.14	0.29*	0.19	0.30*	-0.06	0.32*	0.21*	1.00							
12. Peer Aca. Supp.	0.25*	0.20	0.26*	0.22*	0.05	0.23*	0.13	0.11	0.01	0.23*	0.13	1.00						
13. Par. Val. of Aca. Succ.	0.25*	0.26*	0.22*	0.17	0.07	0.09	0.09	0.17	0.10	0.13	0.18	0.36*	1.00					
14. Parental Expectations	0.11	0.33*	0.13	0.26*	-0.00	0.01	0.08	0.10	0.03	0.17	0.10	0.26*	0.47*	1.00				
15. Parental Ed. Aspiration	0.09	0.24*	0.24*	0.18	-0.08	0.14	-0.03	0.12	-0.08	-0.01	-0.05	0.32*	0.28*	0.23*	1.00			
Mesosystem Variable																		
16. IGC	-0.02	0.09	0.11	0.22*	-0.02	-0.09	0.16	0.02	0.02	0.29*	0.08	0.22*	0.21*	0.40*	0.04	1.00		
Dependent Variables																		
17. School belonging	0.21*	* 0.17	0.19	0.15	0.18	0.15	0.18	0.28**	0.10	0.22**	0.26**	0.42**	0.36**	0.26**	0.10	0.28**	1.00	
18. Adol. Aca. Attititudes	0.36*	* 0.12	0.17	0.16	0.29**	0.14	0.18	0.06	0.08	0.04	0.28**	0.23**	0.59**	0.29**	0.26**	0.06	0.41**	1.00
Mean	n/a	3.40	2.90	3.08	2.84	3.48	2.60	25.14	1.88	2.11	3.01	3.41	4.38	3.65	4.50	2.21	3.21	4.12
Standard Deviation	n/a	0.66	0.69	0.52	0.87	0.58	0.68	5.19	0.46	0.42	0.95	.89	.68	.85	0.71	0.61	0.51	.77
Actual Range	n/a	1.40- 4.00	1.00- 4.00	1.82- 4.00	1.00- 4.00	2.00- 4.00	1.27- 4.00	8.00- 40.00	1.00- 3.00	1.08- 3.00	1.00- 5.00	1.25 - 5.00	2.00- 5.00	1.00- 5.00	1.00- 5.00	1.00- 4.00	1.56- 4.47	1.67- 5.00
Possible Range	n/a	1.00- 4.00	1.00- 4.00	1.00- 4.00	1.00- 4.00	1.00- 4.00	1.00- 4.00	10.00- 40.00	1.00- 3.00	1.00- 3.00	1.00- 5.00	1.00- 5.00	1.00- 5.00	1.00- 5.00	1.00- 5.00	1.00- 4.00	1.00- 5.00	1.00- 5.00
$\begin{array}{l} \text{Alpha} \\ N_{\text{ote.}} *p < .01 \end{array}$	n/a	0.94	0.90	0.84	0.96	0.91	0.87	0.73	0.92	0.84	0.69	0.75	0.86	0.76	n/a	0.91	0.79	0.87

Table 2

A. Summary of Hierarchical Regression Analysis Predicting School Belonging

Predictor Variable	R	\mathbb{R}^2	F	Sig F	R ² Change	F Change	Sig. F Change	Beta	Sig. Beta
Individual	.42	.18	3.81	.00	.18	3.81	.00		
Gender (female)								.13	.11
American Language Acculturation								.04	.73
American Identity Acculturation								.40	.70
American Behavior Acculturation								27	.79
Vietnamese Language Acculturation								.14	.23
Vietnamese Identity Acculturation								02	.87
Vietnamese Behavior Acculturation								12	.83
Self-esteem								.23	.00
Microsystem	.56	.31	4.03	.00	.13	3.68	.00		
Family Social Support								.05	.57
Peer Social Support								.03	.71
School Social Support								.16	.05
Peer Support for Academics								.23	.01
Parental Value for Academic Success								.08	.36
Parental Expectations								00	.93
Parental Educational Aspiration								.05	.55
Mesosystem									
Intergenerational Conflict	.59	.34	4.29	.00	.03	5.94	.02	.21	.02

Table 3

B. Summary of Hierarchical Regression Analysis Predicting Adolescent Academic Attitudes

Predictor Variable	R	\mathbb{R}^2	F	Sig F	R ² Change	F Change	Sig. F Change	Beta	Sig. Beta
Individual	.48	.24	5.46	.00	.24	5.46	.00		
Gender (female)	-							.21	.00
American Language Acculturation								08	.38
American Identity Acculturation								01	.90
American Behavior Acculturation								.19	.04
Vietnamese Language Acculturation								.21	.03
Vietnamese Identity Acculturation								.01	.89
Vietnamese Behavior Acculturation								.05	.59
Self-esteem								04	.55
Microsystem	.70	.50	9.01	.00	.27	10.23	.00		
Family Social Support								07	.30
Peer Social Support								09	.23
School Social Support								.18	.01
Peer Support for Academics								07	.34
Parental Value for Academic Success								.50	.00
Parental Expectations								.04	.59
Parental Educational Aspiration								.09	.20
Mesosystem									
Intergenerational Conflict	.71	.51	8.57	.00	.01	1.49	.23	09	.23

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