

## ABSTRACT

Title of Thesis: CULTURAL AND SOCIAL COGNITIVE  
PREDICTORS OF ACADEMIC  
SATISFACTION IN SOUTHEAST ASIAN  
AMERICAN COLLEGE STUDENTS

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This study examined the predictive utility of Lent's (2004) social cognitive model of well-being in the context of academic satisfaction with a sample of Southeast Asian American college students using a cross-sectional design. Path analysis was used to examine the role of perceived parental trauma, perceived parental acculturative stress, intergenerational family conflict, and social cognitive predictors to academic satisfaction. Participants were 111 Southeast Asian American and 111 East Asian American college students who completed online measures. Contrary to expectations, none of the contextual cultural variables were significant predictors of academic satisfaction. Also contrary to expectations, academic support and self-efficacy were not directly linked to academic satisfaction and outcome expectation was not linked to goal progress. Other social cognitive predictors were related directly and indirectly

to academic satisfaction, consistent with prior research. Limitations and implications for future research and practice are addressed.

CULTURAL AND SOCIAL COGNITIVE PREDICTORS OF ACADEMIC  
SATISFACTION IN SOUTHEAST ASIAN AMERICAN COLLEGE STUDENTS

by

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## Chapter 1: Statement of the Problem

Despite the growing Asian American population in the United States (U.S.), the educational struggles of Asian Americans are frequently overlooked and understudied due to the model minority myth that collectively portrays all Asian Americans as well-adjusted and academically successful (Tseng, Chao, & Padmawidjaja, 2007; Sue & Okazaki, 1990). However emerging research has begun to challenge this myth and have found that Asian American college students actually report more career decision-making difficulties and greater mental health concerns and lower self-esteem than their non-Asian peers (Greene, Way, & Paul, 2006; Mau, 2004).

Within the Asian American literature, the academic experiences of Southeast Asian Americans are even more underrepresented. A problematic concern is that many studies on Asian American educational outcomes tend to aggregate data on Asian Americans as a group which may mask group differences between subgroups such as differences in immigration history that may differentially affect educational experiences. For instance, within the Southeast Asian American community, Vietnamese Americans, Cambodian Americans, Hmong Americans, and Laotian Americans have primarily immigrated to the U.S. as refugees, have proportions of bachelor's degree attainment lower than the national average, and are more likely to live in poverty (26%, 15%, 14%, and 12% respectively; Ogunwole et al., 2012; Southeast Asia Resource Action Center, 2011). College has been said to generate opportunities that may lead to better employment prospects and work satisfaction, which in turn may generate better economic and mental health. Further, research has suggested that having positive learning experiences and environmental supports may predict higher well-being among college

students and may promote academic satisfaction and persistence (Gloria & Ho, 2003). However more research is needed to determine predictors that may be particularly relevant to Southeast Asian American college students who may be at a higher risk of not completing postsecondary education.

One approach to understanding low educational attainment rates is to examine academic satisfaction. An emphasis on academic satisfaction is relevant as students who are more satisfied with their academic life may be more likely to persist in their academic endeavors. For instance, studies have found that Asian Americans who report having more environmental and social support were more likely to persist in college (Gloria & Ho, 2003). Other studies with college students have found that social cognitive variables such as self-efficacy and outcome expectations have been linked to intended persistence and that academic satisfaction has been directly linked to intended persistence (Lent et al., 2015). Further, academic support has been directly linked to academic satisfaction for Asian American college students (Hui, Lent, & Miller, 2013). Therefore, students who have high environmental support may be more academically satisfied and in turn may be more likely to persist in college.

### **Social Cognitive Model of Well-Being**

Existing research on the educational experiences of Southeast Asian Americans have primarily focused on descriptive factors thought to influence academic achievement and educational outcomes such as social class and language barriers (Garcia Coll et al., 2002; Hune & Takeuchi, 2008). However, few studies have used existing theoretical frameworks in examining academic satisfaction with this population. Lent's (2004) social cognitive model of well-being, which incorporates both personal and environmental



factors thought to influence academic satisfaction and has been tested with many college student populations may provide a useful and unified approach in understanding the educational experiences of Southeast Asian Americans (Hui et al., 2013; Lent & Brown, 2006, 2008; Lent, Brown, & Hackett, 1994; Lent, Singley, Sheu, Schmidt, & Schmidt, 2007; Lent et al., 2009; Ojeda et al., 2011). The model incorporates five types of variables directly and indirectly linked to overall and domain-specific satisfaction, including personality and affective traits, contextual factors such as environmental supports and barriers, as well as social cognitive variables such as self-efficacy, outcome expectations, and goal progress (Lent, 2004). Cross-sectional research has generally supported the hypothesized relationships in the model. For instance, environmental supports, self-efficacy, and goal progress have been shown to predict academic satisfaction in diverse college populations, although the specific direct and indirect pathways have varied within these studies (Lent et al., 2014; Sheu et al., 2014; Hui et al., 2013; Lent et al., 2009; Ojeda et al., 2011). However, support for the relationships between outcome expectations with other variables and to academic satisfaction have been mixed, compelling some studies to omit this variable in their model and analyses (Hui et al., 2013; Ojeda et al., 2011). Longitudinal studies have also supported the temporal ordering of some of the predictor variables in the model in relation to academic satisfaction as well as finding some inconsistencies between some of the predictor variables and their reciprocal nature (Lent et al., 2009, 2015; Singley, Lent, & Sheu, 2010). For example the relationship between self-efficacy and goal progress was found to be bi-directional in one longitudinal study with college students; however the relationship from support to self-efficacy was non-significant (Singley et al., 2010). In the same

study, the relationship from support to self-efficacy was insignificant (Singley et al., 2010). Another study found partial support for a bi-directional relationship between self-efficacy and support with a sample of engineering college students (Lent et al., 2015). These mixed findings in longitudinal studies and differences in relationships with other cross-sectional studies emphasize the importance of continually examining how this model may fit with various college student populations and over time as academic experiences are not static. In addition to the social cognitive predictors in the model, adding contextual factors have also been found to improve the model's explanatory power in understanding academic outcomes across diverse groups. Studies have also found that contextual predictors such as supports and barriers relate to career choice actions indirectly through self-efficacy, suggesting that individuals with higher coping self-efficacy may perceive more support and fewer barriers (Lent, Brown, & Hackett, 2000; Lent et al., 2003). Other contextual cultural factors such as acculturation and enculturation have been found to indirectly relate to academic satisfaction through environmental support (Hui et al., 2013; Ojeda et al., 2011). Therefore incorporating contextual cultural factors particularly relevant to Southeast Asian Americans such as perceived parental trauma, perceived parental acculturative stress, and intergenerational family conflict may provide a better understanding on how these factors may also relate to academic satisfaction.

### **The Southeast Asian American Experience:**

#### **Southeast Asians and Trauma**

Studying Southeast Asian Americans collectively is reasonable given that Vietnamese, Hmong, Cambodians, and Laotians share similarities in their pre-

immigration trauma experiences and post-immigration experiences as refugees (Chung & Kagawa-Singer, 1993; Sakamoto & Woo, 2007). Trauma is used to describe experiences, events, or situations that are emotionally harmful, threatening, or distressing, that may have lasting adverse effects on an individual's function and coping (Substance Abuse & Mental Health Services Administration, 2012). Many studies have consistently examined the effects of war-induced trauma on the mental and physical health of Southeast Asian American refugees, even decades after resettlement (Chung & Bemak, 2006; Krippner & McIntyre, 2003; Ying, 2001; Chung & Kagawar, 1993; Kelly, 1986). For example, many Southeast Asians are at a higher risk for mental health issues, are at an increased risk for poorer physical health, and a few studies have found that parental experiences of trauma may affect the parent-child relationship, which has resulted in higher levels of mental health concerns among subsequent generations and may affect Southeast Asian American adolescent's and college student's psychological well-being and sense of coherence (Chung & Bemak, 2006; Field, Muong, & Sochanivimean, 2013; Han, 2005; Ying, 2001).

However, no study has examined how parental pre-immigration trauma experiences may be related to academic experiences. Family involvement and support has been found to be particularly relevant to Asian Americans and Southeast Asian Americans in their academic undertakings such as career choice (Tang et al., 1999). Examining parental trauma in the context of education and academic satisfaction may provide a better understanding of how the experience of parental trauma may affect children's perceptions of family support as it relates to academic experiences. For instance, parents dealing with their own mental health problems may be less involved in

their children's academic endeavors, resulting in lower family academic support. For example, studies have found that Cambodian parents have lower parental involvement and school-based involvement in education than other immigrant groups (Garcia Coll et al., 2002).

As family has been found to be an important factor in predicting the career development decisions for Asian Americans, Southeast Asian Americans may be less likely to have high levels of family support. In a qualitative study with Asian Americans and career development, individuals indicated the importance of family in influencing their career development (Fouad et al., 2008). Social support influenced vocational development in that social support influenced how satisfied individuals were with their careers (Fouad et al., 2008). Further, Asian Americans who report having more environmental and social support were more likely to persist in college, suggesting the importance of examining how parental trauma may relate to Southeast Asian American college students' experiences of academic support and indirectly to academic satisfaction (Gloria & Ho, 2003; Ying & Han, 2008).

### **Acculturative Stress**

As Southeast Asian Americans have fairly recent immigration histories, acculturation, the process of change that occurs as a product of contact between cultural groups, may be even more relevant for this population as Southeast Asian Americans may experience post-migration stressors such as acculturative stress, stressors that are a direct result of the process of acculturation in adapting to mainstream culture (Berry, Kim, & Minde, 1987; Berry, Phinney, Sam, & Vedder, 2006). Acculturative stressors include perceived difficulties across culture-specific life domains such as language, work,

intercultural relations, and values (Gil, Vega, & Dimas, 1994; Miller, Kim, & Benet-Martínez, 2011; Padilla, Cervantes, Maldonado, & Garcia, 1988). Due to the socio-political history of Southeast Asian refugees such as forced relocation, Southeast Asians may be less prepared to move and may acculturate at a slower rate than other immigrants (Ying & Han, 2007). As a result, this stress may impact social functioning and psychological well-being.

Although studies have examined acculturation to be indirectly related to academic satisfaction through academic support with Asian American and Mexican American college student populations, no study has examined how acculturative stress may relate to academic satisfaction. Acculturative stress has been linked to mental health problems for Asian Americans (Mui & Kang, 2006; Xu & Chi, 2013). Similar to the effects of perceived parental trauma, parents who are dealing with post-migration acculturative stressors of adapting to the mainstream culture such as language barriers, work challenges, and cultural isolation may further compromise the ability of these individuals to function effectively as parents in providing support. As previously mentioned, pre-immigration parental trauma and post-migration acculturative stress may have a cumulative impact on parenting and affect college student's perceptions of family and environmental support. Therefore in addition to perceived parental trauma, parental acculturative stress may also be useful in understanding Southeast Asian Americans and their academic experiences.

### **Intergenerational Family Gap Conflict**

Another specific type of acculturative stress that may be relevant to Southeast Asian Americans includes familial stress, specifically intergenerational family conflict

due to intergenerational differences in acculturation. Immigrant parents in the United States are slower to acculturate compared to children who oftentimes adapt faster to the host culture and these different rates of acculturation have been found to be more pronounced in Asian American families (Lee & Liu, 2001). Different rates of acculturation are associated with higher family conflict which has been linked to greater social and mental health problems (Lee & Liu, 2001; Lee, Su, & Yoshida, 2005; Su, Lee, & Vang, 2005). As parents retain traditional values and children are acculturating to American values, second-generation Southeast Asian American college students may have increased rates of intergenerational conflicts between parents (Rumbaut, 1994; Su et al., 2005; Ying & Han, 2007; Zhou & Bankston, 1998).

Family intergenerational conflict in turn may affect the amount of support these individuals perceive to have from parents. For instance, one study found lower intergenerational family gap conflict was related to increased parental involvement in academics, which resulted in enhanced cohesion and well-being in a sample of Southeast Asian American adolescents (Ying & Han, 2008). Greater career indecision has also been linked to greater psychological distress and greater perceived family conflict with Asian American, African American, and Latino/a American college students (Constantine & Flores, 2006). Higher intergenerational family conflict prior to college was related to lower GPA for first-year Asian American college students (Bahrassa, Syed, Su, & Lee, 2011). Therefore intergenerational family conflict may also be useful to consider in understanding the educational experiences of Southeast Asian Americans college students.

## Chapter 2: Literature Review

In order to gain a better understanding of the educational needs of the Southeast Asian American community, literature on the educational experiences of the Southeast Asian American community, the social cognitive model of well-being and its relation to career outcomes, and the socio-political context of the Southeast Asian American experience were reviewed. The first section addresses the educational disparities with Southeast Asian Americans as a serious concern and highlights the underperformance of Southeast Asian Americans in the context of education. The second section provides an overview of the construction and conceptualization of the social cognitive model of well-being and how it has been used in examining academic satisfaction. The third section provides a history of Southeast Asian immigration and how the contextual cultural factors of parental trauma, acculturative stress, and intergenerational family gap conflict may be particularly relevant to this population.

### **Southeast Asian American Education**

Asian Americans were the fastest growing racial group in the U.S. from 2000 to 2010 and continue to be the nation's fastest growing racial group as of 2012 (U.S. Census Bureau, 2012; 2013). However, despite the growing Asian American population in the U.S., there has been limited research on the educational problems Asian Americans may experience. Specifically, as national standards have frequently emphasized the over-performance of Asian Americans relative to whites and other racial and ethnic minority groups in educational domains, the educational struggles of the Southeast Asian American community are oftentimes overlooked (U.S. Department of Education, 2010).

Emerging research has begun to examine the importance of disaggregating the data to further understand the unique experiences and challenges Southeast Asian Americans may experience in higher education but have primarily been descriptive in nature, focusing on statistics such as the community's lower rates of bachelor's degree attainment and higher rates of poverty, lower English language proficiency, and higher rates of living in under-resourced neighborhoods (Southeast Asia Resource Action Center, 2011). For instance, conceptual studies have emphasized that factors such as having higher rates of poverty than the national average, language barriers, and living in under-resourced neighborhoods may result in students being less academically prepared than their peers (Hune & Takeuchi, 2008; Southeast Asia Resource Action Center, 2011; Um, 2003).

Other conceptual and descriptive studies have focused on the challenges of being first-generation college students in the context of bachelor's degree attainment (Hune & Takeuchi, 2008; Um, 2003). For instance, studies have found that students who have parents that do not have a college degree (i.e., first-generation college students) were also more likely to receive lower grades and have higher dropout rates than students with at least one parent with a college degree (Pascarella, Pierson, Wolniak, & Terenzini, 2004; Stephens, Hamedani, & Destin, 2014). Similar to the challenges of other first-generation college students, Southeast Asian American college students may also face the struggle of navigating higher education without the aid of social and cultural capital and may be at risk for experiencing alienation and marginalization in school (Hune & Takeuchi, 2008; Pascarella et al., 2004). For those who do make it to college, Southeast Asians are more likely to attend community colleges than four year institutions and are at a higher risk for



dropping out of community colleges even with financial aid (Hune & Takeuchi, 2008; Shek et al., 2010).

Other studies have found that Southeast Asian parents are less involved in their children's education with some adults unable to parent well due to pre-immigration trauma experiences (Garcia Coll et al., 2002; Hune & Takeuchi, 2008). In addition to being less involved in children's education, studies have also suggested that Southeast Asian parents may not know how to assist children in school due to limited knowledge of the United States' educational system, language barriers, and distrust in schooling due to a lack of formal education themselves (Garcia Coll et al., 2002; Smith-Hefner, 1999).

In sum, research studies on the educational experiences of Southeast Asian American college students have primarily focused on educational outcomes such as bachelor's degree attainment. However, few, if any studies have focused on the psychological aspects of academic adjustment such as domain-specific satisfaction with this population. As it has been established that the rates of bachelor's degree attainment is lower in the Southeast Asian American community, more research is needed to understand how students make sense of these hypothesized factors thought to influence their educational experiences.

### **Social Cognitive Model of Well-Being**

In understanding vocational issues such as academic satisfaction that may lead to persistence and academic outcomes such as college degree attainment, the social cognitive model of well-being is particularly relevant in understanding the dynamic process of academic outcomes. The social cognitive model of well-being incorporates components from social cognitive career theory and has been used to explain vocational

adjustment including academic satisfaction in college students (Lent & Brown, 2006).

The model has also been used to examine work satisfaction (Lent & Brown, 2006, 2008).

Social cognitive career theory, derived from Bandura's (1986) social cognitive theory, provides a more integrative framework in relating aspects of career development and educational outcomes such as career choice by taking into consideration person factors as well as contextual and experiential factors (Lent et al., 1994). Integrating these factors provides a better understanding of the dynamic process of how career and academic interests develop and how academic outcomes are attained. In addition, social cognitive theory highlights the situation and domain specific nature of behavior and the processes where individuals demonstrate personal agency through mechanisms relevant to career development such as self-efficacy, outcome expectations, and goal representations (Lent et al., 1994).

Self-efficacy refers to "people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances" (Bandura, 1986 p. 391). These self-beliefs are important in that they help to determine one's choice of activities, thought patterns, persistence in academic goals, and have found to be predictive of academic and career related choice (Hackett & Lent, 1992). Outcome expectations, which are personal beliefs regarding probable response outcomes for engaging in a behavior are also important in that it may affect career behavior (Lent et al., 1994). Goal setting and progress are also important in that maintaining goals are more likely to result in the desired outcome attainment (Lent et al., 1994).

In addition to person variables, the model further acknowledges the importance of contextual and environmental factors in understanding interest and behavior in career-

related choices and outcomes. For instance, environmental influences such as emotional and financial support and cultural processes help shape interests and self-cognitions such that the presence of high support with few barriers will result in stronger goal action relations to career outcomes as these support systems and prior learning experiences may shape a person's confidence in career outcomes (Lent et al., 1994). Family academic support, a contextual variable, is particularly relevant for Southeast Asian Americans. For instance, family involvement and support has been found to be important to Asian Americans and Southeast Asian Americans in their academic decisions such as career choice (Tang et al., 1999). In a qualitative study with Asian Americans and career development, individuals indicated the importance of family in influencing their career development and that social support influenced how satisfied Asian Americans were with their careers (Fouad et al., 2008). Further, Asian Americans who report having more environmental and social support were more likely to persist in college (Gloria & Ho, 2003).

In further understanding and assessing the domain specific nature of social cognitive constructs in career research such as academic experiences, the social cognitive model of well-being emerged from social cognitive career theory to understand academic and work satisfaction (Lent & Brown, 2006). The core concepts of social cognitive career theory, including self-efficacy, outcome expectations, interests, goals, and contextual supports and barriers are integrated into the social cognitive model of well-being to examine how these social cognitive concepts relate to academic and career satisfaction. The social cognitive predictors of the model as they relate to academic satisfaction have

been tested in cross-sectional studies with college students and have generally been found to be a good fit in linking the predictors to academic satisfaction.

However, studies have also found that predictors such as self-efficacy and interests may predict academic satisfaction differently for various cultural groups (Lent et al., 2014; Tang et al., 1999). For instance, studies using the social cognitive career theory framework have found that interests is not a significant factor in predicting academic satisfaction or career choice for Asian American and Mexican American college students and other studies have omitted outcome expectations from their model due to inconsistent findings with this variable (Hui et al., 2013; Lent et al., 2009; Ojeda et al., 2011; Tang et al., 1999).

Cross-sectional studies have also incorporated culture-specific predictors in the model with the goal of better understanding the unique experiences of diverse populations that may not be fully captured in the general model (Lent et al., 2014; Sheu et al., 2014; Hui et al., 2013; Lent et al., 2009; Ojeda et al., 2011). For example, acculturation and enculturation were found to be indirectly related to academic satisfaction with Asian American and Mexican American college students (Hui et al., 2013; Ojeda et al., 2011).

Studies have also found that contextual predictors such as supports and barriers relate to career choice actions indirectly through self-efficacy, suggesting that individuals with higher coping self-efficacy may perceive more support and fewer barriers (Lent et al., 2003). Other contextual factors such as higher levels of perceived family conflict and psychological distress have been found to predict higher levels of career indecision

among Asian American, African American, and Latino/a college students (Constantine & Flores, 2006).

Longitudinal studies have further supported the temporal ordering of some of the predictor variables in the model in relation to academic satisfaction, as well as finding some bi-directional relationships and inconsistencies between some of the predictor variables (Lent et al., 2009, 2015; Singley, Lent, & Sheu, 2010). For example, one study on the longitudinal test of the social cognitive model of academic and life satisfaction in a sample of college students found the relationship between self-efficacy and goal progress to be bi-directional (Singley et al., 2010). However surprisingly in this study, the relationship from support to self-efficacy was insignificant (Singley et al., 2010). Another study found partial support for a bi-directional relationship between self-efficacy and support with a sample of engineering college students (Lent et al., 2015). Yet another study that examined the bi-directional relationship between self-efficacy and goal progress longitudinally in a sample of Portuguese college students found that relationship to be nonsignificant as well as the direct relationship between goal progress and academic adjustment, similar to academic satisfaction, to also be nonsignificant (Lent et al., 2009). However, these differences in results may also be a result of methodological issues such as the specificity of the different measures used in examining predictors in the model. For example, the academic adjustment measure used in the study with Portuguese college students included items related to academic satisfaction in addition to other items, resulting in a measure that was not domain-specific. These mixed findings in longitudinal studies demonstrate the continued importance of examining the model not only with diverse samples but over time as academic experiences are not static.

In sum, the social cognitive career theory framework has widely been used to examine career development across diverse samples. Although many studies have consistently reported adequate model fit using this framework and studies have generally supported most of the relations among variables, there are inconsistencies on which relations among variables are significant. For instance, some studies have found the relation of outcome expectations on goals and persistence to be nonsignificant while others have found a significant and positive relation between outcome expectations on other variables such as with academic satisfaction (Lent et al., 2003; 2007; 2005; Garriott et al., 2015).

In addition to the discrepancy among variable relations, there is variability in how the model is tested which may contribute to differences in study findings. For instance, some studies have tested the full model while other studies have omitted certain predictors and have only examined aspects of the model in relation to academic satisfaction (Garriott et al., 2015; Hui et al., 2013; Ojeda et al., 2011). Further, other studies have focused on other outcomes such as academic adjustment instead of academic satisfaction (Lent, Taveira, Sheu, & Singley, 2009). Due to some of the inconsistencies in findings among college samples in various studies with diverse populations, it is important to test whether the model fits in the same manner as theorized in under-represented samples such as Southeast Asian Americans. Further, adding contextual variables may further explain additional variance not captured in the general model to better understand experiences that may be unique to certain populations.

### **The Southeast Asian American Experience and Cultural Factors**

In the United States, the Southeast Asian American community typically consists of refugees and children of refugees who have emigrated from the countries of Vietnam, Cambodia, and Laos in different waves (Rumbaut, 1989; Ngo & Lee, 2007). As a result of the historical and political forces that have shaped refugee immigration, approximately 1,174,651 refugees from Southeast Asian countries have immigrated to the United States from 1975 to 2010 since the first wave of refugees and 2,506,303 individuals currently identify as Southeast Asian in the United States; this number is expected to grow (Southeast Asia Resource Action Center, 2011). As a fairly recent immigrant group, it is important to understand the social and political context that has shaped Southeast Asian immigration to the United States to further understand how and why this group may have not only higher rates of mental health issues but is also underperforming academically (Chung & Bemak, 2006; National Center for Education Statistics, 2012; Ying, 2001).

### **Southeast Asians and Trauma**

In the United States, the Southeast Asian American community typically consists of refugees and children of refugees from the countries of Vietnam, Cambodia, and Laos who have immigrated to the U.S. in different waves (Ngo & Lee, 2007). Studying Southeast Asian Americans collectively is reasonable given that Vietnamese, Hmong, Cambodians, and Laotians have similar immigration histories (Chung & Kagawa-Singer, 1993; Sakamoto & Woo, 2007). For example, Southeast Asian Americans share similarities in their pre- and post-immigration experiences such as the experience of psychological and physical trauma due to the civil war (Chung & Kagawa-Singer, 1993). One factor that has consistently been cited in the research literature is the Southeast Asian experience of trauma (Chung & Bemak, 2006; Krippner & McIntyre, 2003; Ying, 2001;

Chung & Kagawar, 1993; Kelly, 1986). In addition to this trauma, intentions for leaving their country of origin are common among Southeast Asian groups which include forced relocation, imprisoned prior to exit, and fear of arrest or harm from the new regime (Krippner & McIntyre, 2003). Past political involvement with the old regime and association with the United States government has also been cited as motives for fleeing (Krippner & McIntyre, 2003).

Many studies have also recognized how trauma has directly affected Southeast Asian refugees (Chung & Bemak, 2002; Ying, 2001). For example, due to the historical context and this experience of pre-immigration trauma, many Southeast Asians are at a higher risk for mental health issues and are less likely to seek help due to cultural and language barriers (Chung & Bemak, 2006; Ying, 2001). In addition, Southeast Asians are at a higher risk for post-traumatic stress disorder (PTSD) and many of these refugees continue to experience PTSD decades after fleeing their native country (Chung & Bemak, 2006; Dao et al., 2012; Field et al., 2013; Mollica et al., 1992; Ying, 2001). For example, Ying (2001) found that due these traumatic experiences, many Southeast Asian refugees experience more psychological distress than the general American population and this is continued over time due to additional experiences of culture shock and post- migration challenges. This puts Southeast Asian refugees at higher risk for mental health disorders such as PTSD and depression (Ying, 2001). Another study examining psychological distress with a nonclinical community sample of Southeast Asian refugees (e.g., Vietnamese, Cambodian, and Laotian refugees) found that refugee women have higher levels of distress than their male counterparts (Chung & Bemak, 2002).



In addition to poorer mental health, Southeast Asian refugees are also at increased risk for poorer physical health. A study with Cambodian refugees two decades after resettlement found that Cambodian refugees reported poor health compared to the overall United States population as well as other Asian populations (Wong et al., 2011). In Southeast Asians, language proficiencies have been found to be reliable predictors of mental health and the importance of family cohesion has been found to assist with the psychological adjustment with Southeast Asians (Lui & Rollock, 2012). Pre-immigration trauma such as witnessing death of loved ones and years in refugee or re-education camps have been found to affect the daily functioning of Southeast Asians in that these individuals have reported symptoms of PTSD or depression and may have less cognitive resources to deal with other responsibilities such as work and parenting (Field et al., 2013; DuongTran, 2011; Ying & Han, 2008). In addition to these pre-immigration factors, current stressors such as financial difficulties and lower levels of English proficiency may trigger past trauma and compromise the ability of these individuals to function as effective parents and may make this population at a higher risk for mental health issues which may have an effect on children's emotional and academic development (Field et al., 2013; Chung & Bemak, 2002).

Thus, many studies have recognized how trauma has directly affected Southeast Asian refugees. However not much is known about these effects on academic outcomes and specifically, how the intergenerational effects of trauma may affect subsequent generations academically such as how parental trauma experiences may affect levels of academic support with children of Southeast Asian parents. Further, no study has examined how perceived parental trauma may impact children's perceptions of academic

support, which has been directly linked to academic satisfaction in Lent's (2004) model. The few studies examining the intergenerational effects of trauma have focused on the parent-child emotional relationship. In the Holocaust literature, there are mixed findings on the transmission of trauma to second and third generations. Some studies have found no evidence of transmission of trauma while other studies have found that perceived parental trauma has affected the parent-child relationship and has resulted in higher levels of distress and depression among subsequent generations (Giladi & Bell, 2013; Letzter-Pouw et al., 2013; Van IJzendoorn et al., 2003). Holocaust survivors' access to social support postwar has been used to explain why evidences of transmission of trauma were not significant (Van IJzendoorn et al., 2003). This suggests that post-migration factors such as access to networks, resources, and supports may also be important. However Southeast Asian refugees may have limited access to these resources.

A few studies on the intergenerational effects of trauma with Southeast Asian Americans have found that students' perceptions of parental trauma are also related to the parent-child relationship, which in turn predicts Southeast Asian American adolescent's and college student's well-being, similar to the intergenerational effects found in the Holocaust literature (Field et al., 2013; Han, 2005). The importance of family cohesion to psychological adjustment in Southeast Asian American adolescents have also been examined in the literature (Han & Lee, 2011; Ying & Han, 2008). In these studies, parental involvement has been found to be important to adolescent well-being (Ying & Han, 2008).

However, no study has examined how perceived parental trauma may be related to academic experiences and there is limited information on the effect of perceived

parental trauma on the career development of second generation Southeast Asians.

Family involvement and support have been found to be significant to Asian Americans in their academic progress such as career choice (Tang et al., 1999). As family has been found to be an important factor in predicting the career development decisions for Asian Americans, Southeast Asian Americans may be less likely to have high levels of family support. For instance, parents dealing with their own mental health problems may be less involved in their children's academic endeavors so that these individuals may be less likely to have family academic support.

As previously mentioned, in addition to dealing with their own mental health, parents of Southeast Asian American students may work long hours and are consequently less involved in their child's academic pursuits (Um, 2003). One study found that Cambodian parents have lower parental involvement and school-based involvement in education than other immigrant groups (Garcia Coll et al., 2002). In a qualitative study with Asian Americans and career development, individuals indicated the importance of family in influencing their career development and emphasized the importance of social support in influencing satisfaction with careers (Fouad et al., 2008). Asian Americans who reported having more environmental and social support were also more likely to persist in college (Gloria & Ho, 2003). Therefore examining the intergenerational effects of trauma in the context of education and academic satisfaction may provide a better understanding of how the experience of parental trauma may affect children's perceptions of family support as it relates to academic experiences, including academic satisfaction that has been linked to persistence in college (Gloria & Ho, 2003).

In sum, trauma has been extensively studied in its relation to mental health experiences and outcomes. However, trauma has not been frequently examined in its relation to academic experiences. As studies have found parental trauma to affect children's level of anxiety and depression, it may be important to examine how these experiences may also play out in the academic domain (Field et al., 2013). For instance, parental trauma experiences may result in less involvement and academic support with Southeast Asian American college students. As a result, students may perceive less environmental support from parents which may affect educational experiences and indirectly relate to academic satisfaction. As stress and mental health have been found to affect the academic experiences of college students with students with poorer mental health (e.g., higher stress) reporting lower support and academic satisfaction, stressors such as parental trauma may also directly affect the academic experiences of Southeast Asian American college students (Felsten & Wilcox, 1992).

### **Acculturative Stress**

Approaches to acculturation assessment vary in conceptualization. As a result, two perspectives on acculturation have emerged and dominated the research field. One viewpoint equates acculturation with assimilation to the host culture, emphasizing a unidimensional change towards mainstream society (Dona & Berry, 1994). The other viewpoint perceives acculturation to be bidimensional; the individual is able to maintain cultural values (enculturation) as well as assimilate into mainstream society (acculturation), keeping the two cultures distinct (Ryder, Alden, & Paulhus, 2000). The bi-dimensional model accounts for exchange between both cultural groups and the individual is able to have multiple cultural identities. Acculturation, the process in which

an individual adapts to the mainstream culture's values and behaviors, and enculturation, the process in which an individual retains the native culture's values and behaviors, have been found to be indirectly and positively linked to academic satisfaction with Asian American college students (Hui et al., 2013).

As Southeast Asians have recent immigration histories to the United States, acculturation may be even more relevant for this population as these individuals may experience more acculturative stress, stressors that are a direct result of the process of acculturation in adapting to mainstream culture (Berry et al., 1987). However acculturation does not always lead to a stress reaction (Williams & Berry, 1991). The magnitude of differences between an individual's culture of origin and the new culture across several cultural domains such as language, family life, and values such as collectivism have been found to affect the amount of stress experienced from immigrating to the new culture (Chirkov, Lynch, & Niwa, 2005; Miller et al., 2011).

Acculturative stress may impact physical, psychological, and social domains of functioning and include perceived challenges across culture-specific domains such as language, work, intercultural relations, and values (Gil et al., 1994; Miller et al., 2011; Padilla et al., 1988).

Due to the socio-political history of Southeast Asian refugees, Southeast Asians may acculturate at a slower rate than other immigrants (Ying & Han, 2007). Migration to another country may be difficult for many immigrants as it involves leaving behind familiar customs, norms, and language but may be worst for Southeast Asian refugees because the choice to leave was not deliberate. In addition to having greater cultural distance in terms of language and values such as collectivism, the choice to leave their

country of origin was not voluntary, contributing to slower rates of acculturation, which may compound post-migration stressors of acculturating to the new culture for Southeast Asian refugees.

Acculturative stress has been linked to mental health problems for Asian Americans (Mui & Kang, 2006; Xu & Chi, 2013). For example, acculturative stress has been significantly linked to depressive symptoms with Asian Americans (Xu & Chi, 2013). Among Asian immigrants in New York, acculturative stress was also linked to more depressive symptoms for the elderly, who are less likely to acculturate at fast rates due to language barriers and differences in cultural norms and values (Mui & Kang, 2006). With Vietnamese Americans, general acculturative stress and discrimination have been to be associated with alcohol use (Park et al., 2014).

Parents who are dealing with post-migration acculturative stressors of adapting to the mainstream culture such as language barriers, work challenges, and cultural isolation may further compromise the ability of these individuals to function effectively as parents. As previously discussed, pre-immigration parental trauma and post-migration acculturative stress may have a cumulative impact. As acculturative stress has also been found to affect the mental health of individuals, parents who face additional stressors to the new host country where they may not be fully prepared to manage differences in cultural norms in addition to trauma experiences prior to immigration are at an even greater for mental health problems. Both pre-immigration trauma experiences and post migration stressors have consistently been linked to mental health disorders among Southeast Asian refugees (Chung & Bemak, 2002). However, acculturative stress has not been examined in academic domains. As acculturative stress also includes stressors such

as language barriers and studies have found that Southeast Asian parents may have a tendency to be less involved in their children's education, it may be that the acculturative stress of navigating the education system due to language barriers may result in less academic involvement or support in academic domains (Garcia Coll et al., 2002).

Another potential explanation may be that acculturative stress, a specific type of cultural post-migration stressor, may also increase the risk for mental health symptoms for Southeast Asian refugee parents and as a result, parents may be dealing with their own mental health and consequently are less involved in their child's education. In turn, parent's experience of acculturative stress may also affect children's perceptions of family academic support. Therefore in addition to perceived parental trauma, parental acculturative stress may also be useful in understanding Southeast Asian Americans and their academic experience. As family support is important to the academic development of Asian Americans (Fouad et al., 2007; Tang et al., 1999), perceived parental acculturative stress may result in lower family academic support, which in turn may be linked to lower levels of academic satisfaction. However, as the relation of acculturative stress and its relationship to academic outcomes has been limited in the literature, it is unclear how this contextual cultural variable may affect academic experiences and warrants attention. As acculturative stress may affect mental health outcomes, and mental health has been found to affect academic outcomes such as college students' grade point averages and overall satisfaction, it is important to examine how acculturative stress may affect academic satisfaction (Felsten & Wilcox, 1992; Hamaideh & Hamdan-Mansour, 2014).

### **Intergenerational Family Conflict**

As immigrant parents in the United States are slower to acculturate compared to children who oftentimes acculturate faster to the host culture, these differences in acculturation rates may result in intergenerational family conflict and are more prominent in Asian American families (Lee & Liu, 2001). For example a study measuring the relationship between intergenerational family conflict and psychological distress in Asian American, Hispanic, and European American college students found that Asian American college students reported the highest likelihood of family conflict (Lee & Liu, 2001). For the other two groups (Hispanics and European Americans), college students rated family conflict as likely to occur only once in a while (Lee & Liu, 2001). Cultural differences between values and norms between parents and children may increase this conflict.

Higher intergenerational family conflicts is linked to social and mental health problems for Asian American and Southeast Asian American college students (Lee & Liu, 2001; Lee, Su, & Yoshida, 2005; Su, Lee, & Vang, 2005). For instance, higher levels of intergenerational family conflict were associated with greater psychological distress (Lee & Liu, 2001). This cultural conflict may be even greater for Southeast Asian American families as parents may be more resistant to change due to the involuntary nature of leaving their country of origin. As a result, when parents retain traditional values and children are acculturating to American values, second-generation Southeast Asian American children have increased rates of intergenerational conflicts between parents (Rumbaut, 1994; Su et al., 2005; Ying & Han, 2007; Zhou & Bankston, 1998).

Family intergenerational conflict may consequently affect perceptions of family support, including domain-specific academic support. Children who perceive more family conflict may also perceive lower levels of support from their families. For



instance, healthy intergenerational relationships and parental involvement in a child's life was associated with less delinquent behaviors in Hmong adolescents (Lor & Chu, 2002). Increased parental involvement across contexts such as home and academics were also related to less intergenerational family conflict for Southeast Asian American adolescents and resulted in enhanced cohesion and well-being for these adolescents (Ying & Han, 2008). Intergenerational family conflict has also been found to be negatively related to parental social support for Asian American and Asian international college students (Yang, Haydon, & Miller, 2012). Social support has been found to be important for Asian Americans and Hmong American college students who may experience high intergenerational family conflict (Lee et al., 2005; Su et al., 2005). For example, for Hmong American students, when family conflict was perceived to be high, social support seeking behavior buffered the potential negative effects of distress, suggesting that other sources of support are also important for students who may have greater family conflict and lower family support (Su et al., 2005).

Intergenerational family conflict has also been found to influence vocational development. For example, in the context of career development, greater career indecision was associated with greater psychological distress and greater perceived family conflict with Asian American, African American, and Latino/a American college students (Constantine & Flores, 2006). In another study, higher intergenerational family conflict prior to college was also related to lower GPA for first-year Asian American college students (Bahrassa et al., 2011). Greater intergenerational family conflict may be related to lower perceptions of family academic support, which may result in lower self-efficacy in academic endeavors and consequently related to lower levels of academic

satisfaction. Greater intergenerational family conflict may also result in greater stress and poorer mental health, which has been found to affect academic outcomes such as grade point average in college students (Felsten & Wilcox, 1992). Therefore, in addition to the other two cultural factors, intergenerational family conflict may be another useful predictor in better understanding the educational experiences of Southeast Asian Americans college students. Intergenerational family conflict in addition to the other two cultural factors together may provide a better understanding on family academic support, which has been found to be important in understanding the educational achievements of Southeast Asian Americans (Um, 2003).

## Chapter 3: Statement of the Problem

### **Present Study**

Lent's (2004) social cognitive model of well-being offers a useful framework in understanding academic satisfaction with Southeast Asian American college students as it accounts for both individual and environmental factors in predicting academic satisfaction as well as contextual culture variables that may be incorporated into the model and has been used with diverse racial and ethnic minority college populations (Hui et al., 2013; Lent et al., 2005; Lent, Taveira, Sheu, & Singley, 2009; Ojeda, et al., 2011; Sheu, Chong, Chen, & Lin, 2014). As many cross-sectional studies have consistently demonstrated good fit of the model in general and longitudinal studies have established the temporal ordering of some of the predictors in the model, more research is needed to establish how the model fits specifically with underrepresented groups. Further, adding contextual cultural factors that may be more particularly salient to specific populations may provide a more complete understanding of contextual factors that may indirectly relate to academic satisfaction and potentially improve the model's explanatory power across diverse groups (Hui et al., 2013; Ojeda et al., 2011). Including contextual cultural factors such as perceived parental trauma may further increase the utility of the model in understanding additional factors that may play a role in the educational experiences of Southeast Asian American college students.

Therefore, the primary purpose of this study was to extend the literature on the utility of the social cognitive model of well-being in predicting academic satisfaction with a sample of Southeast Asian American college students. As contextual culture variables have been incorporated into the model to improve the model's explanatory

power across diverse populations, the second purpose of this study was to examine additional contextual variables such as perceived parental trauma, perceived parental acculturative stress, and intergenerational family conflict pathways that may be particularly relevant to this population in predicting academic satisfaction. Contextual cultural predictors (e.g. perceived parental trauma, perceived parental acculturative stress) as well as social cognitive predictors (e.g. self-efficacy, outcome expectations) were examined.

### **Design and Hypotheses**

This study was descriptive and cross-sectional in nature and used path modeling to test the pathways of cultural and contextual predictors (perceived parental trauma, perceived parental acculturative stress, intergenerational family conflict) and social cognitive predictors (sources of academic support, self-efficacy, outcome expectations, and goal progress) to academic satisfaction (see Figure A1). Goal progress (pathway a), self-efficacy (pathway b), outcome expectations (pathway c), and family academic and other sources of support (pathway d), were predicted to be directly and positively linked to academic satisfaction, congruent with Lent's (2004) model. These hypothesized direct and positive relations to academic satisfaction are consistent with what other studies have found using this model (Lent & Brown, 2006; Lent et al., 2009; Hui et al., 2013; Ojeda et al., 2011). Thus, individuals who perceive positive perceptions of making progress toward academic goals, confidence in their ability to perform well academically, positive perceptions of the outcomes of performing well academically, and positive perceptions of academic support are more likely than others (who don't have positive perceptions) to be academically satisfied.

In addition to being positively related to academic satisfaction, self-efficacy was also predicted to be indirectly linked to academic satisfaction through goal progress (pathway e) and outcome expectations (pathway h). Individuals who perceive higher confidence in their ability to perform well academically will also perceive more positive perceptions on the progress they are making towards their goals and will also perceive more positive outcomes that result from obtaining an undergraduate degree. Outcome expectation was also predicted to be indirectly and positively linked to academic satisfaction through goal progress (pathway f). Academic support was predicted to be indirectly and positively linked to academic satisfaction through goal progress (pathway g), self-efficacy (pathway i), and outcome expectations (pathway j), which is consistent with previous research (Hui et al., 2013; Ojeda et al., 2011). For example, individuals who perceive higher levels of academic support will perceive higher levels of making progress toward their goals, higher levels of self-confidence, and more positive outcome expectations, which will be related to higher levels of academic satisfaction.

Perceived parental acculturative stress was predicted to relate to academic satisfaction indirectly and negatively through family academic support (pathway k). Individuals who perceive their parents to have experienced higher levels of acculturative stress may perceive less support from their family because the parent's experience of acculturative stress may affect their involvement in their children's academic life, which will indirectly relate to their level of academic satisfaction. Similarly, perceived parental trauma was also predicted to relate to academic satisfaction indirectly and negatively through support (pathway l). Individuals who perceive their parents to have experienced higher levels of trauma related to pre- and post-immigration factors are more likely to

have less support from their family because the parent's experience of trauma may also affect their parenting style and involvement in their children's academic undertakings. This in turn, will directly affect levels of family academic support and indirectly relate to the individual's academic satisfaction.

Intergenerational family conflict was predicted to relate to academic satisfaction indirectly and negatively through family academic support (pathway m). Individuals who experience more family conflict may feel that they have less family academic support, which will indirectly relate to their level of academic satisfaction. And finally, the three cultural variables were predicted to be related to each other (pathway, n, o, and p). Acculturative stress, intergenerational family conflict, and parental trauma were hypothesized as being related to each other as these three constructs include components of pre and post-migration experiences of adjustment that may result in stress. For instance, parental acculturative stress results from the stressful experience of migrating to a new country whose culture and language may differ from the country of origin. Intergenerational family conflict, a component of acculturative stress, results from having conflicts with parents due to different rates of acculturation between parents and children that may also result in stressful experiences. Lastly, parental trauma experiences consists of pre-migration stressors such as witnessing the death of loved ones or forced relocation as refugees which may also be a taxing experience. Hypothesized pathways are included in Figure A1.

## Chapter 4: Method

### Participants

Participants in the Southeast Asian American sample consisted of 111 college students who self-identified as Southeast Asian American (approximately 12% Cambodian, 10% Hmong, 20 % Laotian, 56 % Vietnamese, and 2% more than one Southeast Asian ethnic identity) from diverse universities throughout the U.S. whose ages ranged from 18 to 33 years ( $M = 21.44$ ,  $SD = 3.75$ ). Approximately 60 % of the participants identified as female, 37% as male, and 3 % as other. Participants were recruited through email and snowball sampling. Most of the participants identified as 2nd generation (79%), followed by 1.5 generation (14%) and 1<sup>st</sup> generation (5%). The remaining participants (2%) did not indicate generational status. The majority of the participants identified as full time students (52%), followed by full time students working part time (34%), and part time students working full time (8%). Regarding parental education level, the majority of the participants indicated that for maternal education level, most mothers completed high school or the equivalent (26%), followed by completed a bachelor's degree from a 4 year college (15%), completed an associate's degree from a 2 year college or technical school (12%), completed middle school or the equivalent (7%), and started but did not complete middle school (7%). Similarly, for paternal education level, most fathers completed high school or the equivalent (30%), followed by completed bachelor's degree from a 4 year college (16%), completed an associate's degree from a 2 year college or technical school (11%), started but did not complete high school (8%), and completed middle school or the equivalent (6%).

Participants in the East Asian sample consisted of 111 college students who self-

identified as East Asian American (approximately 63% Chinese, 32% Korean, and 5 % Japanese) whose ages ranged from 18 to 24 years ( $M = 19.86$ ,  $SD = 1.51$ ). Approximately 70 % of the participants identified as female, 34% as male, and 7 % as other ( $N = 111$ ; please see Table E3 for the means, standard deviations, inter-correlations, and internal consistency reliability estimates of the variables in the East Asian American sample

### **Procedure**

Two primary methods were used to recruit participants. First, a random list of 5,467 self-identified Asian, Asian-American, and Pacific Islander undergraduate students were generated by the University of Maryland's registrar's office and an email was automatically generated for this random list. Students were invited by email to participate in a one-time online study of Southeast Asian Americans' college experiences. With the generated list, 21 emails bounced back. Students were sent emails for a total of three times. Second, participants were also recruited through convenience sampling through the researchers' connections with undergraduate college students from other universities and student organizations throughout the U.S. A total of 46 emails were sent out to college students and student organizations from other universities. Participants were informed that the purpose of the study was to better understand Southeast Asian American's academic experiences. With these two primary methods of recruitment, the response rate was approximately 9%. To be included in the study and data analyses, participants had to self-identify with either a Southeast Asian or East Asian ethnic identity. Bi-racial and multi-racial Asians who also identified with a Southeast Asian or East Asian identity were retained in the dataset. Data collected from students who identified as other Asian American ethnicities other than Southeast Asian and East Asian descent (e.g. Indian)



were omitted from data analysis. Participant also had to identify as a current student in order to participate and be included in the data analysis. Participants also had the choice to enter into a raffle to win a \$10 gift card as an incentive for participation at the end and were given an electronic debriefing form.

**Measures:**

The Academic Experiences Questionnaire subscales (AEQ) developed by Lent et al. (2005) was used to measure academic self-efficacy, academic outcome expectations, academic goal progress, and academic satisfaction in his social cognitive model of well-being. Academic support was measured using a modified version of the environmental academic support scale developed by Lent et al. (2005). With each scale, scores were calculated by summing up the items and dividing by the number of items for each scale. The academic self-efficacy, academic goal progress, and the academic satisfaction scales have been found to yield internal consistency reliability and validity estimates of .80 and higher with Asian American college students (Hui et al., 2013). Higher scores indicated more positive perceptions (i.e. perceived greater support, self-efficacy, etc.). Construct validity was established through factor analytic tests that found the hypothesized model represented a good fit to the data, CFI =.94, as well as cross-cultural validity with the model with a sample of Taiwanese and Singaporean college students (Sheu et al., 2014).

**Academic Support.** Academic support was assessed using a modified version of the environmental academic support scale developed by Lent et al. (2005) to include a family academic support subscale in addition to a subscale of other environmental conditions of support (i.e. support from mentors). Previous studies assessing the original academic support measure with Asian American college students have reported adequate

estimates of reliability with an alpha coefficient of .85 (Hui et al., 2013). Family academic support consisted of 5-items that asked participants to indicate how much they agreed on statements denoting available family academic support in their intended major using a 5-point Likert scale ranging from 1= strongly disagree to 5 = strongly agree. A sample item was, “[I] feel support from my family for pursuing my intended major.” Other environmental support consisted of 5-items that asked participants to indicate how much they agreed on statements denoting other sources of support in their intended major (i.e. mentors and friends) using a 5-point Likert scale ranging from 1= strongly disagree to 5 = strongly agree. A sample item was, “[I] have access to a ‘mentor’ who could offer me advice and encouragement.” Scores were calculated by summing up the items from both subscales and dividing by the total number of items to get a total score of family academic support and other sources of support. The alpha coefficient for the current study was .85.

**Academic Self-Efficacy.** Academic self-efficacy was assessed using Lent et al.’s (2005) scale for academic self-efficacy and coping with barriers from the AEQ, a 12-item measure asking participants to indicate how confident they are in their abilities to successfully perform a variety of academic tasks in their academic major and confidence in their abilities to successfully cope with barriers in pursuing an undergraduate degree. A sample item of confidence was the ability to “excel in your intended major over the next semester” and a sample item for coping with barriers was “cope with a lack of support from professors or your advisor.” Items were measured using a 10-point scale ranging from 0 = no confidence to 9 = complete confidence. Previous studies have reported

adequate reliability coefficients of .89 with Asian American college students (Hui et al., 2013). For the current study, the alpha coefficient was .94.

**Academic Outcome Expectations.** Academic outcome expectations was assessed using Lent et al.'s (2005) scale for academic outcome expectations, a 10-item measure asking participants to indicate the extent to which they agree with statements on a variety of outcomes that could result from obtaining an undergraduate degree. A sample item was "go into a field with high employment demand." Items were measured using a 10-point scale ranging from 0 = strongly disagree to 9 = strongly agree. Although this measure has not been used with Asian American college students, studies with engineering student samples have indicated good internal consistency with alphas ranging from .89 to .91 (Lent et al., 2005). In this current study, the alpha coefficient was .90.

**Academic Goal Progress.** Academic goal progress was assessed using Lent et al.'s (2005) scale for academic goal progress, a 7-item measure asking participants to indicate how much progress they are making towards various academic goals. A sample item was "excelling at your academic major." Items were measured using a 5-point scale ranging from 1 = no progress at all to 5 = excellent progress. Previous studies have reported adequate reliability coefficients of .93 with Asian American college students (Hui et al., 2013). For the current study, the reliability coefficient was .90.

**Academic Satisfaction.** Academic satisfaction was assessed using Lent et al.'s (2005) scale for academic satisfaction, a 7-item measure asking participants to indicate their degree of satisfaction with their academic experience. A sample item was "I am generally satisfied with my academic life." Items were measured using a 5-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. Previous studies have

reported adequate reliability coefficients of .90 with Asian American college students (Hui et al., 2013). In this current study, the reliability coefficient was .86.

**Perceived Parental Trauma.** The Southeast Asian Traumatic Stress Scale (SATSS) was created and used to measure perceived parental trauma. The measure is based on the Secondary Traumatic Stress Scale (STSS; Bride, Robinson, Yegidis, & Figley, 2004), a measure originally developed to assess symptoms associated with secondary traumatic stress caused by indirect exposure to traumatic material. In this study, participants were prompted with potential pre-immigration experiences Southeast Asian parents may have faced, including forced relocation, torture or imprisonment in re-education camps, and/or death of loved ones. Participants were then asked to indicate how frequently each item was true for them due to their parent's pre-immigration trauma experiences using a 6-point Likert-type scale (0 = not applicable or didn't happen, 1 = never, 2 = rarely, 3 = occasionally, 4 = often, 5 = very often).

Scores for the SATSS were obtained by summing up the items and dividing by the total number of items. An initial pool of items based on the STSS were developed and modified for Southeast Asian trauma experiences. The original scale included three factors: intrusion, avoidance, and arousal. The SATSS was modified to include a fourth factor: emotional distress. This resulted in 29-items capturing the four subscales. The original STSS hypothesized model represented a good fit to the data, CFI = .94, and convergent validity with the measure correlating positively with depression and anxiety (Bride et al., 2004). However, since the original STSS measure was modified to include a fourth factor in the SATSS, exploratory factor analysis (EFA) was conducted to assess the construct validity in the development of the SATSS and to examine the extent in

which the items reflected the factors of intrusion, avoidance, arousal, and emotional distress. In this dataset, the Kaiser-Meyer-Olkin Measure of Sampling Adequacy statistic, a test of commonality among items, was .90, and the Bartlett's Test of Sphericity was also found to be significant ( $p < .001$ ), indicating that the items were interrelated enough for the purpose of factor analysis.

A principal-axis factor analysis was initially conducted using Direct Oblimin rotation. Parallel analysis indicated two factors were present from the dataset. Using a stringent criteria, primary loadings of .50 or greater were retained and cross loadings of .20 or higher were deleted. This resulted in 13 items that were deleted simultaneously. A principal-axis factor analysis using Direct Oblimin rotation was run again, forcing the remaining items into a two-factor solution. Using the same criteria (primary loadings of .50 or greater were retained and cross loadings of .20 or higher were deleted), 3 more items were deleted simultaneously. This process was repeated two more times until all items had primary loadings of .50 or greater and cross loadings less than .20. This resulted in a two-factor structure where 9 items were retained (see Appendix M; bolded items represent items used in the current study for analyses). An EFA was conducted due to the exploratory nature of the modified scale and the two factor structure was retained because it was a better fit compared to the four factor scale. In this current study, the reliability coefficient was .95.

**Perceived Parental Acculturative Stress.** The Riverside Acculturation Stress Index (RASI; Benet-Martínez & Haritatos, 2005) was used to assess perceived parental acculturative stress. The RASI includes five subscale domains: work challenges (3 items), language skills (3 items), intercultural relations (3 items), cultural isolation (3

items), and discrimination (3 items) for a total of 15 items and asked participants to indicate whether or not they can negotiate more than one cultural orientation or identity. The items were modified in wording to reflect the participant's perception of parental acculturative stress instead of the participants' own experiences of acculturative stress. Items were measured using a 5-point Likert scale with 1 = strongly disagree and 5 = strongly agree. A sample item was "Because of my parent's Asian background, they have to work harder than most Americans." Items were summed up and divided by the number of items for a total score. Higher scores indicated greater acculturative stress. The RASI has yielded a reliability of .84 with Asian Americans (Miller, Kim, & Benet-Martínez, 2011). For the current study, the alpha coefficient was .89. Construct validity has been established for this measure through goodness-of-fit tests, demonstrating that the measure matches well with the data, CFI = .96, factor analytic validity of the first five-order factors, as well as criterion-related evidence for the construct validity where acculturative stress was negative associated with bicultural identity integration and positively associated with depression and anxiety (Miller et al., 2011).

**Intergenerational Family Conflict.** The Asian American Conflicts Scale (FCS-L; Lee, Choe, Kim, & Ngo, 2000) was used to assess intergenerational family conflict. The FCS-L measures intergenerational family conflict, conflicts between parents and children due to acculturation gaps between generations. The measure included 10 items that reflect parent-child situations that may occur in families written from the perspective of the child, reflecting disagreements in values and practices between U.S. raised children and their Asian immigrant parents. The scale asked participants to consider how likely each situation will occur in participants' relationships with their parents. A sample item

was “your parents tell you what to do with your life, but you want to make your own decisions.” Items were measured using a 5-point Likert scale with 1 = almost never and 5 = almost always. Items were summed and divided by the number of items. Higher scores indicated greater intergenerational family conflict. The FCS-L has yielded adequate reliability coefficients of .89 with Asian American college students (Lee et al., 2000).

For the current study, the alpha coefficient was .94. Construct validity has also been established through examining the relationship between the items on this measure with a measure of acculturative stress in addition to using goodness-of-fit tests to demonstrate that the measure matches well with the data  $\chi^2 (35, N= 178) = 56.48, p < .01$ ; CFI = .97 (Lee et al., 2000). Criterion validity was also demonstrated through testing the acculturation gap hypothesis for family conflicts in addition to testing group differences on the FCS by generational status, ethnicity, and language (Lee et al., 2000). Lastly, concurrent validity was established in examining the correlations between the FCS and cultural orientation variables and found that the FCS was positively correlated with participants’ Asian orientation and parents’ Asian orientation but negatively correlated with parents’ western orientation (Lee et al., 2000).

**Demographics Questionnaire.** The demographics questionnaire asked about participant’s gender, age, self-identified Asian American ethnicity, generational status, highest level of education completed, parental levels of education completed, and current educational status.

## Chapter 5: Results

### Data Screening and Preliminary Analyses

A total of 478 participants originally completed the online survey. However, 98 participants were removed due to having more than 10% missing data on items of each scale (e.g., AEQ, STSS, RASI, FCS-L) or did not indicate self-identified Asian American ethnicity or current educational status. The Little's MCAR test obtained for this study's data which included the items on all of the scales indicated that the data was missing completely at random,  $\chi^2(8581, N = 478) = 8608.61, p = .42$ . The remaining missing data were imputed using expectation maximization (EM). Out of the remaining 380 participants, 268 participants did not self-identify as Southeast Asian American. A random subset of these participants who identified as East Asian (e.g., Chinese, Korean, and Japanese) were selected and used for the post hoc analyses ( $N = 111$ ). The remaining participants were removed from the dataset. One participant was removed for not meeting the age requirements of the study. This resulted in the final sample Southeast Asian Americans ( $N = 111$ ) and a final sample of East Asian Americans ( $N = 111$ ) used in the subsequent analyses.

### Path Analyses

Table 1 (see Appendix B) contains the means, standard deviations, inter-correlations, and internal consistency reliability estimates of the variables in the Southeast Asian American sample ( $N=111$ ). A path analysis was performed using MPlus 6.12 (Muthen & Muthen, 1998-2011) statistical package using robust maximum likelihood estimation to test the model fit shown in Figure A1 with bootstrapping to test indirect effects. Three primary indices were used to assess the adequacy of model-data



fit: the comparative fit index (CFI), the standardized root mean square residual (SRMR), and the root mean square error of approximation (RMSEA). Hu and Bentler (1999) suggested that SRMR values close to .08 in combination with CFI values close to .95 or RMSEA values close to .06 imply good model-data fit. However acceptable levels of fit may be inferred from CFI values  $\geq .90$  (Hoyle & Panter, 1995), RMSEA values  $\leq .08$  (Browne & Cudeck, 1992) and SRMR values  $\leq .08$  (Hu & Bentler, 1999); although higher levels of CFI ( $\geq .95$ ) and lower levels of RMSEA ( $\leq .06$ ) are preferable (Hu & Bentler, 1999).

Fit indices of the indirect effects model revealed an adequate fit to the data across the indices. The CFI suggested adequate fit (CFI = .946), the SRMR suggested good fit (SRMR = .072), and the RMSEA suggested adequate fit (RMSEA = .080). Despite the RMSEA suggesting adequate fit, the 90% confidence intervals of the RMSEA contained .08, (90% confidence interval = .000, .138), Satorra-Bentler (SB)  $\chi^2$  (12,  $N = 111$ ) = 20.601,  $p = .06$ . A depiction of the structural model with significant pathways are represented in Figure A1. The model accounted for 43% of the variance in academic satisfaction.

A partially mediated model was also tested, which added direct paths from parental trauma, parental acculturative stress, and intergenerational family conflict to academic satisfaction. The partially mediated model revealed a mixed pattern of fit to the data across the indices. The CFI suggested adequate fit (CFI = .940), the SRMR suggested good fit (SRMR = .070), while the RMSEA suggested poor fit (RMSEA = .098). Despite the RMSEA suggesting poor fit, the 90% confidence intervals of the RMSEA contained .08, (90% confidence interval = .030, .161), SB  $\chi^2$  (9,  $N = 111$ ) =

18.61,  $p = .03$ . The partially mediated model accounted for 44% of the variance in academic satisfaction. Likelihood ratio testing using the SB scaled chi-square difference test indicated that the addition of the three direct paths from parental trauma, parental acculturative stress, and intergenerational family conflict to academic satisfaction did not significantly improve model fit,  $SB \Delta \chi^2 = 2.13, p > .05$ , suggesting that the addition of the three direct paths to academic satisfaction did not improve model-data fit over the more parsimonious indirect effects model. Therefore, the indirect effects model was retained.

Contrary to expectations, none of the cultural variables (e.g., parental acculturative stress, parental trauma, intergenerational gap conflict) were significantly related to academic support. However the coefficients for parental acculturative stress and intergenerational family conflict were in the expected direction (negative). Contrary to expectations, the coefficient for parental trauma was not in the expected direction (negative) and was positive instead. All three cultural variables were significantly related with each other. Consistent with prior research and the predicted hypotheses, academic support was significantly and related to self-efficacy, outcome expectations, and goal progress. Also consistent with the predicted hypotheses, self-efficacy was significantly related to outcome expectations and goal progress. However contrary to expectations, outcome expectations was not significantly related to goal progress and the coefficient was not in the expected direction. Also contrary to expectations, self-efficacy and academic support were not directly related to academic satisfaction. However the coefficients for both self-efficacy and academic support were in the expected direction.

Only goal progress and outcome expectations were directly linked to academic satisfaction, providing partial support for the predicted hypotheses.

### **Mediated Paths**

Indirect effects were tested using 10,000 bootstrap samples and bias-corrected 95% confidence intervals to test the statistical significance of specific indirect effects. Contrary to expectations, none of the cultural contextual variables (e.g., parental acculturative stress, parental trauma, intergenerational gap conflict) were indirectly related to academic satisfaction. Academic support was linked to academic satisfaction only indirectly via self-efficacy, goal progress, and outcome expectations. Self-efficacy was related to academic satisfaction only indirectly through goal progress and outcome expectations. Outcome expectations was related to academic satisfaction indirectly via goal progress, resulting in only five indirect pathways that were statistically significant (see Table C2 for the hypothesized indirect pathways and results).

### **Post Hoc Analyses**

Southeast Asian American populations in the U.S. have a different sociopolitical history from other Asian American groups (e.g., Chinese, Korean, and Japanese) in their pre- and post-immigration experiences as refugees (Rumbaut, 1989; Ngo & Lee, 2007). For example, as East Asians resettled in the U.S. voluntarily as immigrants and often for better economic opportunities, Southeast Asians involuntarily relocated to the U.S. as refugees (Rumbaut, 1989). These differences in experiences may differentially shape their academic experiences in the U.S. Due to these differences in sociopolitical history, post-hoc analyses were conducted to examine whether the structural model (i.e., same

pattern of relationships) also worked with a sample of East Asian American college students ( $N = 111$ ).

A path analysis was also performed using MPlus 6.12 (Muthen & Muthen, 1998-2011) statistical package using robust maximum likelihood estimation to test the model fit shown in Figure E1 with bootstrapping to test indirect effects with a random sample ( $N = 111$ ) of East Asian American college students (e.g., Chinese, Korean, and Japanese) in the dataset. Fit indices of the indirect effects model revealed an adequate fit to the data across the indices. The CFI suggested adequate fit ( $CFI = .940$ ), the SRMR suggested good fit ( $SRMR = .068$ ), and the RMSEA suggested adequate fit ( $RMSEA = .078$ ). Despite the RMSEA suggesting adequate fit, the 90% confidence intervals of the RMSEA contained .08, (90% confidence interval = .000, .136),  $SB \chi^2 (12, N = 111) = 20.058, p = .07$ .

The relationships among variables were slightly different for the East Asian American sample. Differing from the Southeast Asian American, outcome expectations did not significantly predict academic satisfaction, although the coefficient was in the expected direction. Also differing from the Southeast Asian sample, academic support was also not significantly and directly related to goal progress, although the coefficient was in the expected direction. In this sample, self-efficacy was also not directly linked to outcome expectations, although the coefficient was in the expected direction. Two significant relationships emerged from this sample that were not significant with the Southeast Asian American sample. The first significant relationship was the direct and positive relationship between academic support to academic satisfaction. The second significant relationship that differed from the Southeast Asian American sample was the

direct and negative relationship between intergenerational family conflict to academic support. All of the remaining relationships among variables were similar to that of the Southeast Asian American sample. A depiction of the structural model with significant pathways are represented in Figure E2. The model accounted for 42% of the variance in academic satisfaction.

## Chapter 6: Discussion

The present findings suggest discrepancies in the modified social cognitive model of well-being in predicting the academic satisfaction of Southeast Asian American college students. It is worth noting that there were differences in the pattern of significant relationships between the Southeast Asian American and East Asian American sample. In the context of power and a small sample size, these differences should be interpreted cautiously. However, despite the exploratory nature of this study, it is worth noting that there were differences. Overall, the model fit the data adequately and accounted for a significant proportion of the variance in academic satisfaction (43%). These findings are consistent with other studies that have applied the model of well-being to diverse college student samples (Hui et al., 2013; Lent et al., 2005, 2009; Ojeda et al., 2011). The current study also examined the relationship of three contextual cultural variables, parental trauma, parental acculturative stress, and intergenerational family conflict, with the social cognitive predictors. Surprisingly, none of the contextual cultural variables were indirectly related to academic satisfaction via academic support as theorized in the Southeast Asian American sample.

However in the East Asian American sample, intergenerational family conflict was indirectly related to academic satisfaction through support. The differing results of the contextual cultural factors in the current study with Southeast Asian Americans and East Asian Americans underscore the importance of examining within-group variability of the relationships of these contextual cultural factors across various Asian American subgroups. It may be that the Southeast Asian Americans in this sample have had unique experiences and coping strategies which have helped them to pursue higher education and

may not be representative of the broader Southeast Asian American population. For instance, although the Southeast Asian American sample in the current study reported greater parental acculturative stress, greater parental trauma, and greater intergenerational family conflict than the East Asian American sample, the Southeast Asian American sample also reported greater academic satisfaction than the East Asian American sample. It may be that the Southeast Asian Americans in this sample may have used active and adaptive coping strategies in seeking out other sources of support (e.g., mentors, friends) due to their parent's stressful experiences as the academic support measure also included other sources of environmental support. It may also be that the Southeast Asian Americans in this sample were able to attribute their parent's stressful experiences to external factors out of their control and therefore did not perceive those experiences to affect the amount of support they perceived to get from their parents, suggesting that those who do make it to college are different from those who don't. It should also be noted that the Southeast Asian American sample reported lower levels of parental education compared to the East Asian American sample. It may be that the meaning of being in college may differ for Southeast Asians, many whom are first generation college students and may help to explain the significant relationship between outcome expectations to academic satisfaction. For example, Southeast Asian American students in this sample may appreciate being college given that their parents did not have the same opportunities and may explain why Southeast Asian Americans also reported higher levels of academic satisfaction in the current study. However these differences should be interpreted cautiously as invariance tests were not conducted to see whether the

difference in the magnitude of structural coefficients was statistically significant across groups.

This study may have also been limited in the ways it operationalized its constructs such as support and the contextual cultural variables. It would be useful for future research to refine the measures to be domain-specific and matched to the outcome variable as well as to examine additional indicators of well-being such as perceived stress. Future research may also benefit from including personality factors to test a fuller version of the social cognitive model of well-being with this sample. Unfortunately the limited sample size prevented testing the model in particular subsamples differing in ethnicity or generational status.

However, despite the study's limitations, the current study was the first to test Lent's (2004) social cognitive model of well-being in a sample of Southeast Asian American college students and extends the literature on the utility of the social cognitive model of academic satisfaction with this sample. Although the relations of the social cognitive predictors to academic satisfaction generally conformed to theoretical expectations, it is important to note that several relationships were not supported and surprisingly differed between the Southeast Asian American and East Asian American sample. Specifically, the direct pathway from academic support to academic satisfaction were nonsignificant in the Southeast Asian American sample but were significant in the East Asian American sample, highlighting the importance of examining the pathways and relationships in the model with specific groups.

While a number of path coefficients were significant, not all hypothesized relationships in the model were supported. The first hypothesis that goal progress, self-



efficacy, outcome expectations, academic support would be directly related to academic satisfaction were partially supported. In the present study, only goal progress and outcome expectations were directly linked to academic satisfaction. Surprisingly academic support was not related to academic satisfaction, although the coefficient was in the hypothesized direction and the effect size was very small. This nonsignificant relationship diverges from previous cross-sectional and longitudinal studies with college students that have support to be directly linked to academic satisfaction (Hui et al., 2013; Lent et al., 2009; Ojeda et al., 2011; Singley et al., 2010). In this study the academic support measure was modified to include family academic support as well as environmental supports but the content of the measure may not have matched the outcome variable in terms of specificity. Adding items to the support measure that are matched to items of the outcome variable of academic satisfaction may have resulted in significant findings as the relationship was in the expected hypothesized direction.

Contrary to expectations, self-efficacy was also not directly related to academic satisfaction, although the coefficient was in the hypothesized direction. However this finding contributes to the mixed findings in the literature regarding self-efficacy on academic satisfaction. Both cross-sectional and longitudinal studies with various college student populations have found this relationship to be nonsignificant (Hui et al., 2013; Lent et al., 2009; Singley et al., 2010). However one study with Mexican American college students did find self-efficacy to have a direct relationship to academic satisfaction, although the effect size was small (Ojeda et al., 2011). It may also be that the current study may have relatively high and restricted range of scores on self-efficacy and

academic satisfaction that may reduce the amount of variance that could be predicted for these variables.

Contrary to expectations, outcome expectations did not significantly predict academic goal progress and the coefficient was not in the hypothesized direction. This nonsignificant relationship replicates findings from the mixed cross-sectional studies in the literature regarding outcome expectations as a construct (Lent et al., 2005; Garriott, Hudyma, Keene, & Santiago, 2015). For instance, one study also found this relationship to be nonsignificant with a sample of Mexican American college students (Ojeda et al., 2011). Another study omitted outcome expectations from their model due to the inconsistent findings in the literature (Hui et al., 2013; Sheu & Lent, 2009). It may be that having positive expectations of anticipated outcomes for earning an undergraduate degree may not directly predict the current situation of how much progress students are currently making in their coursework. Given the outcome expectations measure reflected both extrinsic and intrinsic outcomes to earning a degree varied widely such as earning an attractive salary and finding work that is rewarding, it may be that these items may not reflect the breadth of outcome expectations for Southeast Asian American students may perceive. There may also be a mismatch on what a degree would allow students to do and students may not be specifically working towards the goal of “getting respect from people” in the future, an item reflected in the outcome expectations measure. These inconsistencies in relationships may also be due to the different measures used to assess outcome expectations and items in various measures that may not fully capture the construct as intended, resulting in instrumentation issues.

As predicted, self-efficacy indirectly related to academic satisfaction both through goal progress and outcome expectations. Also as predicted and consistent with previous cross-sectional research with diverse samples of college students, academic support was indirectly and positive linked to academic satisfaction via goal progress, self-efficacy, and outcome expectations (Hui et al., 2013; Lent et al., 2005; Ojeda et al., 2011).

Contrary to expectations, none of the contextual cultural variables (e.g., parental trauma, parental acculturative stress, and intergenerational family conflict indirectly predicted academic satisfaction, although the direction of the relationship between parental acculturative stress and intergenerational family conflict was in the expected negative direction. Surprisingly, the direction of the bivariate relationship and the structural coefficient were in the positive direction for parental trauma. The variables did however, significantly relate to each other, demonstrating that these constructs share some similarities with each other, although also distinct. The surprising finding of the trauma variable may reflect the possibility that the Southeast Asian American college students in this sample may not be representative of the general Southeast Asian American population.

As statistics have demonstrated that in addition to having lower bachelor's degree attainment, Southeast Asian American students are also at an increased risk of dropping out of high school and may not even make it to college, it may be that the students in this sample are more resilient and may have the resources to cope with their parents stressful experiences (National Center for Education Statistics, 2012; Southeast Asia Resource Action Center, 2011). It may also be that the parents of these students have found resources to cope with their own stressful experiences and in turn, may not affect their

relationship with their children. As the three cultural variables were modeled to be related to academic satisfaction indirectly through academic support, it may also be that alternative paths and ordering of these predictors may help explain how these contextual variables may relate to academic satisfaction. For instance, it may be that acculturative stress may be indirectly related to academic satisfaction through self-efficacy instead. Both coefficients for parental acculturative stress and intergenerational family conflict to academic support were in the expected direction (negative). However surprisingly, the relationship between trauma and academic support was positive, contrary to expectations. This may be due to the possibility that the items in this measure may not fully capture the underlying construct as the measure used for parental trauma was created for this study and the validity evidence of the measure has not fully been validated.

In the post-hoc analyses, the relationships among variables slightly differed in the East Asian American sample. For instance, outcome expectations did not significantly predict academic satisfaction, although the coefficient was in the expected direction. This finding contributes to the mixed literature on outcome expectations as a construct and its hypothesized relationship among variables (Lent et al., 2005; Ojeda et al., 2011). Also differing from the Southeast Asian sample, academic support was not significantly related to goal progress, although the coefficient was in the expected direction.

In the East Asian sample, self-efficacy was also not directly linked to outcome expectations, although the coefficient was in the expected direction. This finding differs from other cross-sectional studies that have found this relationship to be significant (Hui et al., 2013; Lent et al., 2005; Ojeda et al., 2011). Two significant relationships that emerged from the East Asian sample differed from the Southeast Asian American

sample. Academic support was significantly and directly linked to academic satisfaction, as originally hypothesized in the Southeast Asian American sample and intergenerational family conflict was linked to academic satisfaction indirectly via academic support as previously hypothesized for the Southeast Asian American sample (but was found to be nonsignificant in the Southeast Asian American sample). Although acculturative stress was not significantly related to support, the relationship was in the expected direction. Regarding the trauma variable with East Asian Americans, the direction of the coefficients from the bivariate to the structural coefficient changed, which may be due to statistical suppression. These differences suggest that these relationships may play out slightly differently for different college populations.

### **Limitations and Implications for Research and Practice**

While this study advances the research on the academic satisfaction of Southeast Asian American college students, there are several limitations. It should also be noted that items in the support measure did not capture the breadth of support that may be available and that the outcome expectations measure referenced broader experiences compared to the measures of academic progress and academic satisfaction. It may be possible that the inconsistencies in measurement may have affected the strength and relationships of the predictor variables to the outcome variable. It should be noted that the sample size in this study was small given the complexity of the model. Therefore the results of the study should be interpreted cautiously.

Future research should obtain a larger and more representative sample. Another limitation is that other alternative models were not tested. As previously mentioned, it may be that the contextual cultural variables may be indirectly related to academic

satisfaction via self-efficacy or even directly to the outcome variable through other moderators or mediating variables. Therefore future studies should examine alternative hypotheses and models that may generate a better model fit than the current study. And finally, the study's cross-sectional design does not allow for causal or directional inferences regarding the relationships among the variables. As the specific significant pathways for the Southeast Asian American and East Asian American samples slightly varied and not all of the additional variables (acculturative stress and intergenerational family conflict) were unique to only Southeast Asian Americans, future studies should examine how these constructs may play out in various AAPI populations as well as to continually explore the unique variables that may be more relevant to a population such as the trauma variable with Southeast Asian Americans. Future research should also explore invariance testing between the two samples. In the current study, the trauma measure was created and has not been fully validated. Thus more work is needed to establish the validity of this scale in measuring perceived parental trauma. Future studies should also explore the model with high school Southeast Asian students who may be at an increased risk for dropping out. In addition to studying supports, future studies should also explore how other factors may relate to support such as personality traits as well as explore potential barriers to academic satisfaction. Future studies may also benefit from exploring the relationships in this theoretical framework longitudinally in diverse samples.

In light of the study's limitations, this study suggests that the social cognitive model of well-being may be a tentatively useful theoretical approach to predicting the academic satisfaction of Southeast Asian American college students. Future studies

should attend to potential measurement and methodological issues in incorporating contextual cultural variables into the model. Given the number of positive relationships in the model such as academic support and self-efficacy, counselors may consider focusing on the availability of various supports for Southeast Asian American college students, many who are first generation college students, as they adjust to the demands of college. For instance, in addition to supportive friends and family, access to mentors and university supports and organizations may also be useful to explore. Other points of intervention may be assessed to increase supports. As the findings in this study suggest that self-efficacy and goal progress may also be related to academic satisfaction, counselors may also explore and assess students' confidence in their ability to succeed with various academic tasks as well as to assess the progress they are making towards their goals.

# Appendices

## Appendix A

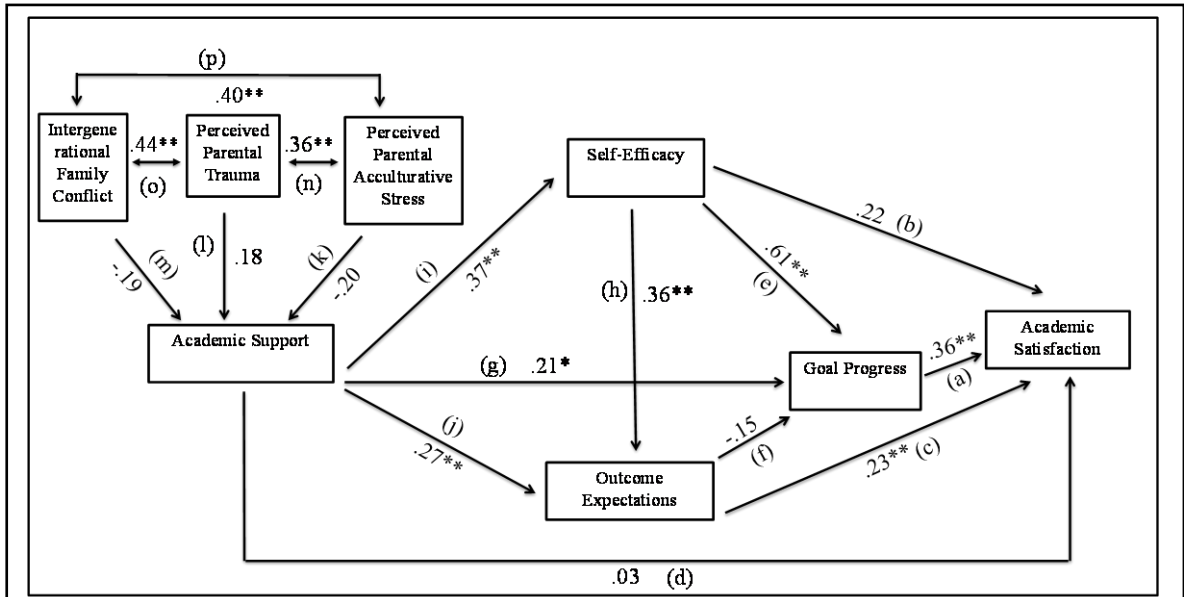


Figure 1. Cultural and social cognitive predictors of academic satisfaction with the Southeast Asian American sample ( $N = 111$ ). Note that this model depicts the results of the final structural model (indirect effects of parental trauma, parental acculturative stress, and intergenerational family conflict on academic satisfaction).  $p < .05$ ;  $**p < .01$



Appendix B

Table 1

*Means, Standard Deviations, Internal Consistency Estimates, and Correlations for Southeast Asian American Sample (N = 111)*

Variable	1	2	3	4	5	6	7	<i>M</i>	<i>SD</i>	$\alpha$
1. Academic support	—							3.74	.75	.85
2. Academic self-efficacy	.37*	—						7.83	1.69	.94
3. Academic outcome expectations	.40*	.46*	—					7.38	1.33	.90
4. Academic goal progress	.37*	.62*	.21*	—				3.67	.69	.90
5. Academic satisfaction	.34*	.56*	.42*	.56*	—			3.95	.62	.86
6. Parental acculturative Stress	-.22*	-.03	.05	-.19*	-.16	—		3.01	.86	.89
7. Family gap conflict	-.19*	.06	.17	-.16	.02	.40**	—	3.23	1.23	.94
8. Parental trauma	.02	.11	.28*	.05	.10	.36**	.44*	2.55	1.11	.95

*Note.* \* $p < .05$ ; \*\* $p < .01$

Appendix C

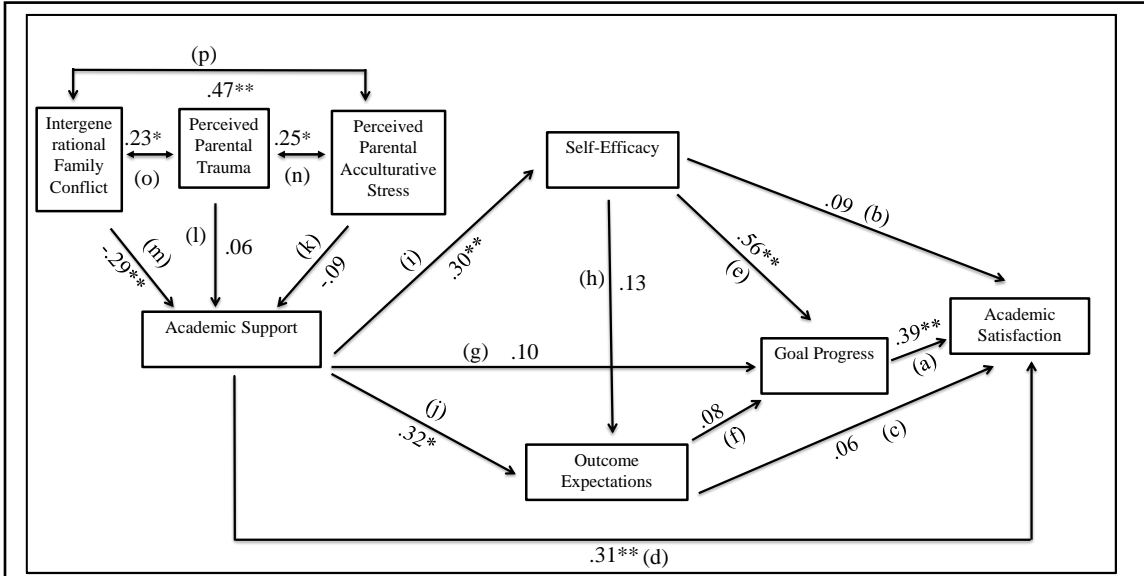
Table 2

*Bootstrap Estimates of Standardized Indirect Effects on Academic Satisfaction*

Independent and intervening variables	Dependent variable	B	SE	95% CI	
				Lower	Upper
GAP→SUP	SAT	-.006	.019	-.043	.030
GAP→SUP→SE→OUT→GOAL	SAT	.001	.002	-.002	.005
GAP→SUP→SE→OUT	SAT	-.006	.005	-.016	.005
GAP→SUP→SE→GOAL	SAT	-.015	.013	-.040	.010
GAP→SUP→SE	SAT	-.015	.012	-.039	.008
GAP→SUP→GOAL	SAT	-.014	.014	-.042	.013
GAP→SUP→OUT→GOAL	SAT	.003	.004	-.004	.010
GAP→SUP→OUT	SAT	-.012	.010	-.032	.008
ACC→SUP	SAT	-.007	.019	-.044	.031
ACC→SUP→SE→OUT→GOAL	SAT	.001	.002	-.002	.005
ACC→SUP→SE→OUT	SAT	-.006	.005	-.017	.004
ACC→SUP→SE→GOAL	SAT	-.016	.014	-.043	.010
ACC→SUP→SE	SAT	-.016	.017	-.049	.016
ACC→SUP→GOAL	SAT	-.016	.014	-.044	.013
ACC→SUP→OUT→GOAL	SAT	.003	.003	-.003	.009
ACC→SUP→OUT	SAT	-.013	.011	-.035	.009
TRAU→SUP	SAT	.006	.022	-.037	.049
TRAU→SUP→SE→OUT→GOAL	SAT	-.001	.002	-.004	.002
TRAU→SUP→SE→OUT	SAT	.005	.005	-.005	.016
TRAU→SUP→SE→GOAL	SAT	.014	.013	-.012	.040
TRAU→SUP→SE	SAT	.014	.016	-.017	.046
TRAU→SUP→GOAL	SAT	.014	.014	-.015	.042
TRAU→SUP→OUT→GOAL	SAT	-.003	.004	-.009	.004
TRAU→SUP→OUT	SAT	.011	.012	-.013	.035
SUP→SE	SAT	.079	.051	-.020	.178
SUP→GOAL	SAT	.076	.035	<b>.008</b>	<b>.144</b>
SUP→OUT	SAT	.063	.033	-.001	.127
SUP→SE→OUT→GOAL	SAT	-.007	.006	-.018	.004
SUP→SE→OUT	SAT	.030	.015	<b>.001</b>	<b>.060</b>
SUP→SE→GOAL	SAT	.080	.034	<b>.014</b>	<b>.146</b>
SUP→OUT→GOAL	SAT	-.014	.011	-.036	.007
SE→GOAL	SAT	.218	.071	<b>.079</b>	<b>.357</b>
SE→OUT	SAT	.082	.034	<b>.016</b>	<b>.169</b>
SE→OUT→GOAL	SAT	-.019	.013	-.045	.007
OUT→GOAL	SAT	-.053	.034	-.120	.014

*Note.* Bootstrap estimates are the mean of average indirect effects (*B*) and associated average standard errors (SE) based on 10,000 bootstrap samples. Bias-corrected 95% confidence intervals (CIs) that exclude zero (shown in boldface) indicate a statistically specific indirect ( $p < .05$ ). GAP = Intergenerational Family Gap Conflict; ACC = Perceived Parental Acculturative Stress; TRAU = Perceived Parental Trauma; SUP = Academic Support; SE = Self-Efficacy; OUT = Outcome Expectations; GOAL = Goal Progress; SAT = Academic Satisfaction.

## Appendix D



*Figure 2.* Cultural and social cognitive predictors of academic satisfaction with the East Asian American sample ( $N = 111$ ). Note that this model depicts the results of the final structural model.  $p < .05$ ;  $**p < .01$

Appendix E

Table 3

*Means, Standard Deviations, Internal Consistency Estimates, and Correlations for East Asian American Sample (N = 111)*

Variable	1	2	3	4	5	6	7	<i>M</i>	<i>SD</i>	$\alpha$
1. Academic support	—							3.74	.71	.88
2. Academic self-efficacy	.30**	—						7.66	1.20	.87
3. Academic outcome expectations	.36**	.23*	—					6.62	1.39	.90
4. Academic goal progress	.30**	.60*	.25*	—				3.66	.65	.85
5. Academic satisfaction	.47**	.43*	.28*	.55*	—			3.70	.66	.86
6. Parental acculturative Stress	-.21*	-.08	-.08	-.08	-.31**	—		2.74	.82	.89
7. Family gap conflict	-.32**	-.09	-.05	-.06	-.28	.47*	—	2.39	.94	.89
8. Parental trauma	-.03	-.10	-.14	-.21*	-.29**	.25*	.23*	1.46	.85	.97

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

Appendix F

Table 4

*Demographic information for East Asian American Sample (N = 111)*

Demographics Variable	n	%
<b>Ethnicity</b>		
Chinese	69	62
Korean	35	32
Japanese	6	5
Mixed (Chinese/Korean)	1	1
<b>Generational Status</b>		
1 <sup>st</sup> generation	3	2.7
1.5 generation	19	17.1
2 <sup>nd</sup> generation	76	68.5
3 <sup>rd</sup> generation	2	1.8
4 <sup>th</sup> generation	1	.9
5 <sup>th</sup> generation	1	.9
<b>Student status</b>		
Full time	68	61.3
Full time working part time	41	36.9
<b>Mother's educational level</b>		
Completed bachelor's degree	30	27
Completed master's degree	26	23.4
Completed high school	17	15.3
Completed associate's degree	14	12.6
<b>Father's educational degree</b>		
Completed doctoral degree	27	24.3
Completed master's degree	27	24.3
Completed bachelor's degree	23	20.7
Completed associate's degree	8	7.2
Completed high school	8	7.2

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