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ASIAN COLLEGE STUDENTS' PERCEIVED PEER GROUP COHESION, CULTURAL IDENTITY, AND COLLEGE ADJUSTMENT

by

Xin Zhao

A thesis submitted in partial fulfillment
of the requirements for the degree

of

MASTER OF SCIENCE

in

Psychology

Approved:

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UTAH STATE UNIVERSITY
Logan, Utah

2012

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ABSTRACT

Asian College Students' Perceived Peer Group Cohesion, Cultural Identity, and College Adjustment

by

Xin Zhao, Master of Science

Utah State University, 2012

Major Professor: Donna Gilbertson, Ph.D.
Department: Psychology

Despite the increase in Asian college student population, this group remains one of the most understudied, due to the myth of "model minority." Many Asian students adjust well academically but often experience high levels of stress, anxiety, or depression due to factors such as acculturation to Western culture, pressure from parents to succeed, ethnic identity issues, intergenerational conflict, immigration status, racism, and discrimination. This study examined the role of five dimensions of Asian values (collectivism, conformity to norms, emotional self-control, family recognition through achievement, and humility) as a moderator in the relationship among peer group cohesion and four dimensions of college adjustment (academic adjustment, social adjustment, personal-emotional adjustment, and attachment) among 150 Asian college students. Data were collected from Asian American and Asian international students attending a college in the United States who completed an online survey. Eighty percent of the students

reported low college adjustment on one or more dimensions measured; however, personal-emotional adjustment and attachment was positively correlated with group cohesion. The results of the moderation analyses indicated that Asian value of humility moderated the effects of cohesion and personal emotional adjustment. Specifically, students who had lower Asian value of humility and high peer group cohesion also reported higher personal emotional adjustment. No other dimensions of Asian values were found to be significant moderators. Implications of the study in terms of future research and college programs for Asian students are discussed.

(88 pages)

PUBLIC ABSTRACT

Asian College Students' Perceived Peer Group Cohesion, Cultural Identity,

and College Adjustment

by

Xin Zhao, Master of Science

Utah State University, 2012

Although there has been an increased focus on multicultural research of college adjustment, Asian students' adjustment is still a major concern that is under studied. Asian students, like other minority students, may be experiencing difficulties such as changes in family expectations and support, acculturation, ethnic identity issues, intergenerational conflict, immigration status, and racism and discriminatory treatment. Successfully adjusting to changes encountered during college requires the use of effective coping techniques, such as social support, to help relieve the stress. The purpose of this study was to explore the relationship between perceived cohesion and university-based peer group's college adjustment of Asian students. Another goal of this study was to examine the extent traditional Asian values moderate the effects of perceived cohesion on college adjustment. Results of these studies revealed that students who had lower Asian value of humility were more emotionally adjusted with high levels of group cohesion. The effect of cohesion on academic adjustment, attachment, or social adjustment did not appear to differ by the levels of reported Asian values. University administration and cultural support groups should note that many participants reported overall low levels of college adjustment despite their positive academic adjustment, more resources should be devoted to provide alternative intervention for Asian students.

CONTENTS

Page

ABSTRACT iii

PUBLIC ABSTRACT v

LIST OF TABLES ix

LIST OF FIGURES .....

CHAPTER

I. INTRODUCTION 1

II. LITERATURE REVIEW 4

Difficulties Adjusting to College 4
College-Based Peer Groups and Cohesiveness 7
Asian Values 14
Demographic Predictors of College Success 18
Summary and Purpose of Study 19

III. METHODS 22

Participants 22
Procedures 22
Instruments 25

IV. RESULTS 31

Descriptive Analysis 31
Preliminary Analysis of Group Differences 33
Bivariate Relationships Among Variables 36
Moderation Analysis 39

V. DISCUSSION 45

Limitations 52
Summary and Future Directions 53

REFERENCES 55

Page

APPENDICES 63

Appendix A: Recruitment Letter 64
Appendix B: Letter of Information..... 66
Appendix C: Student Adaptation to College Questionnaire (SACQ) 69
Appendix C: Screening Questions..... 72
Appendix D: Perceived Cohesion Scale for Small Groups 74
Appendix E: Asian American Values Scale—Multidimensional 76
Appendix F: Demographics Questionnaire..... 79

LIST OF TABLES

Table Page

1. Participant's Demographic Information 23
2. Means, Standard Deviations, and Skewness for All Variables 27
3. Demographic Means and Standard Deviations for Full Scales 32
4. Summary of Independent Sample *t* Tests 35
5. Summary of One-Way Between-Subjects ANOVAs 37
6. Summary of Pairwise Comparisons Using Post Hoc Tukey HSD Statistic for Father's Education on the Cohesion Measure 38
7. Correlations for College Adjustment, Cohesion, and Asian Values Measures 39
8. Hierarchical Regressions Assessing Moderating Effects of Asian Values for Asian Students on Academic Adjustment 41
9. Hierarchical Regressions Assessing Moderating Effects of Asian Values for Asian Students on Social Adjustment 41
10. Hierarchical Regressions Assessing Moderating Effects of Asian Values for Asian Students on Personal Emotional Adjustment 42
11. Hierarchical Regressions Assessing Moderating Effects of Asian Values for Asian Students on Attachment 42
12. Hierarchical Regressions Assessing Moderating Effects of Asian Values for Asian Students on College Adjustment 43

LIST OF FIGURES

Figure Page

1. Pretransformation group cohesion distribution 33
2. Posttransformation group cohesion distribution..... 34
3. Pretransformation attachment distribution 34
4. Posttransformation attachment distribution..... 35
5. Interaction between humility and cohesion on SACQ 43
6. Interaction between family recognition of achievement and cohesion on SACQ 44

CHAPTER I

INTRODUCTION

The Asian population in the United States has grown from 10.2 million in 2000 to 14.7 million in 2010, a change of 43% (US Census Bureau, 2011); that is more than any other major race group. In conjunction with this growth rate, the number of Asian students entering university has doubled over the past two decades (US Census Bureau, 2011). Adjusting to new academic and social stresses at a college campus is not an easy process, particularly for minority students who may be experiencing different languages, value systems, and behaviors.

There has been an increased focus on multicultural research of college adjustment overall, but Asian students' adjustment is still a major concern that is under studied. This void in the literature may be a reflection of the myth of the "model minority," suggesting that Asian students are accomplished, studious and diligent (Sue, 1999) and, therefore, unlikely to be experiencing emotional setbacks compared to other minority students. However, Asian students, like other minority students, may be experiencing difficulties such as acculturation, ethnic identity issues, intergenerational conflict, immigration status, and racism and discriminatory treatment (Atkinson, Lowe, & Matthews, 1995). Asian students also have difficulties transitioning from high school to college because of changes in family expectations and support (Lee, 1996; Solberg, Ritsma, Davis, Tata, & Jolly, 1994; Takaki, 1996). Moreover, previous research demonstrated that there are higher levels of social anxiety and depression in Asian students when compared with their White peers (Cress & Ikeda, 2003; Lau, Fung, Wang, & Kang, 2009). In addition,

past research also indicates that Asian students severely underutilize mental health services (Atkinson et al., 1995; Matsuoka, Breaux, & Ryujin, 1997; Sue, Fujino, Hu, Takeuchi, & Zane, 1991; Tata & Leong, 1994). As this population continues to grow, more research is needed to further our knowledge of Asian ethnic groups' culture and unique experiences, to help facilitate positive college adjustment.

Successfully adjusting to changes encountered during college requires the use of effective coping techniques to help relieve the stress. Asian students who have high Asian values tend to endorse negative attitudes toward seeking psychological help (Kim & Omizo, 2003), instead, 95% of surveyed Asian students ($N = 470$) reported that they seek support from a peer when faced with a problem (Yeh & Wang, 2000). Thus, seeking support from peers might be a coping strategy that may positively influence college adjustment. The cohesiveness of the peer group may also be an important factor of peer support. Bollen and Hoyle (1990) defined perceived group cohesion as "an individual's sense of belonging to a particular group and his or her feelings of morale associated with membership in the group" (p. 482). Cohesive groups function to help individuals to meet their goals. Research has shown that higher levels of social group cohesion had significant impact on the performance of different tasks, including academic tasks, to be completed by groups (Mullen & Cooper, 1994). Cohesive groups may also successfully provide each individual social activity to relieve stress and social support to adjust to college. Moreover, members of cohesive groups may help defend each other against negative external criticism (Lott & Lott, 1961). There is a relative paucity of research, however, that has examined the degree that social support of cohesive groups influences

individual emotional adjustment in social contexts such as college.

Asian culture has unique values that might suggest a student may seek emotional support that was previously provided by the family and no longer available at college. Asian cultural values have been shown to be persistent across many ethnic groups and these values include emotional self-control (Wirtz & Chiu, 2008), interpersonal harmony (Kwan, Bond, & Singelis, 1997), collectivism, interdependence (Markus & Kitayama, 1994), humility, conformity to family norms and expectations, educational and occupational achievement (Kim, Atkinson, &Yang, 1999), and avoidance of shame and saving "face" (Yeh & Huang, 1996). Belief in Asian values and cohesive groups together may influence the degree to which college students adjust to college life.

The primary purpose of this study was to address the gap in the college adjustment and multicultural literature by examining the relation between Asian values and perceived cohesion with university based peer groups in predicting college adjustment of Asian students attending United States universities. It is hypothesized that for Asian students that endorse high Asian values, perceived cohesion will be an important indicator of success in college adjustment. Knowledge of this study may have important implications in developing more effective social programs aimed to provide emotional support for Asian students.

CHAPTER II

LITERATURE REVIEW

The following review of literature presents findings from past research regarding college adjustment, group cohesion and Asian values. The purpose of this review is to propose ways in which the effect of cohesive peer groups on college adjustment could be expected to vary according to Asian values.

Difficulties Adjusting to College

Difficulties adjusting to college stress encountered at universities are linked to decreases in mental health and social and emotional well being as well as academic progress (Felsten & Wilcox, 1992; Reifman & Dunkel-Schetter, 1990). College adjustment difficulties are expected given that many new changes are encountered when a student is attending college. Most changes require that students learn how to successfully function in life tasks more independently with less parent support. The transition from leaving parents' house to reside in college often involves stressors that may lead to academic difficulties and psychological distress (Becker, Martin, Wajeeh, Ward, & Shern, 2002; Vaez & Laflamme, 2003). College students who participated in the National College Health Assessment in 2009 reported that stress was the major negative influence on students' academic performance. For minority students, the level of stress of college life is greater when dealing with ethnicity issues (Dusselier, Dunn, Wang, Shelley, & Whalen, 2005).

Research has begun to emerge on unique cultural factors that may influence college

adjustment. Although the attendance of Asian students in universities demonstrates greater growth rate than any other ethnic minority (Takagi, 1992), few studies have focused on the psychological or emotional aspect of college adjustment with this population (Abe & Zane, 1990; Chang, 1996; Lee & Davis, 2000). It is important to note that students on college campuses are commonly grouped under the Asian classification although this population includes as many as 43 different ethnic groups of different national origin (US Census Bureau, 2001). Although these ethnic groups have some distinctive values, beliefs, and behavior, students in all ethnic groups are experiencing a number of similar stresses such as acculturation issues, discriminatory treatment and racism. Given that there are some similarities in their experiences, many minority groups often unite together to protect and promote their collective interests (Espiritu, 1992).

Despite the promising emergence of multicultural research on college adjustment, the lack of focus on researching Asian students' adjustment to college is a major concern that should be addressed in the literature. The research field has largely overlooked Asian students in college adjustment, which maybe a reflection of the misperception that Asians students are a "model minority" within the United States. The myth of model minority emerged due to the misconception that Asian students are accomplished, studious and diligent and therefore, unlikely to be experiencing emotional setbacks as other minority students (Sue, 1999). Some research findings contradict this myth. Although studies suggest that Asian GPA scores are greater in high school, a few studies have reported lower college GPAs for some subethnic groups within the Asian population compared to Latino, African American and White college students, even when socioeconomic

background, SAT scores, and type of major was controlled (Kao & Thompson, 2003; Snyder, Tan, & Hoffman, 2004).

Belief in the "model minority" label may be a barrier to the organization of effective college programs that provide the type of supportive assistance when it is needed for Asian students who are struggling while attending college. The model minority label suggests that all Asian students are performing academically and socially as expected or better than the White population (Abe & Zane, 1990; Kuo & Roysircar-Sodowsky, 1999; Okamura & Tsutsumoto, 1998). Because of this stereotype, peers and professors often have higher expectations of Asian students even when those students have received same education in schools within the United States as their White peers. Asian-American students' limited use of university student affairs office (Yang, Byers, Ahuna, & Castro, 2002) may be a reflection of this stereotype, because Asian students may be perceived as not as needful of support as other students.

On the contrary, the reality is that Asian students, like other minority students, may be experiencing difficulties such as acculturation, ethnic identity issues, intergenerational conflict, immigration status, racism and discriminatory treatment (Atkinson et al., 1995). For example, Strage (2000) found that subgroups of Asian reported less positive rapport with their teachers and their peers than White and Latino college students, and low levels of emotional support from their families. As with all ethnic groups, Asian students' abilities, experiences, and skills to handle negative experiences vary vastly (Lee, 1996; Takaki, 1996). Historical and cultural influences on coping with personal problems may also influence the level of college adjustment for

Asian students (Komiya, Good, & Sherrod, 2000; Tsang, Tam, Chan, & Cheung, 2003). For any student, college adjustment difficulties may become severe enough to require mental health services (Leong, Wagner, & Tata, 1995; Yeh & Inose, 2003). More so, past research has consistently reported that a combination of institutional and sociocultural barriers resulted in the underutilization of formal mental health services by Asian students (Atkinson et al., 1995; Matsuoka et al., 1997; Sue et al., 1991; Tata & Leong, 1994). In addition, previous research has shown higher levels of social anxiety and depression in Asian college students when compared with their White peers (Cress & Ikeda, 2003; Lau et al., 2009). In part, because of this lower rate of help seeking, Asian students were 1.6 times more likely compared to white counterparts to have seriously considered suicide as an option (Choi, Rogers, & Werth, 2009). This finding is also consistent with the findings of National College Health Risk Behavior Survey which examined six categories of priority health-risk behaviors among youth and young adults (Keller & Silverman, 2002). Given these issues, Asian students might need different kinds or levels of support (Gloria & Ho, 2003). Thus, social support from peers and group cohesiveness will be discussed in the following section.

College-Based Peer Groups and Cohesiveness

Successfully adjusting to college requires use of effective coping techniques to help relieve stress of college life. Important effective coping strategies that are protective factors against negative effects of stress include seeking and gaining social support from family or a group of friends (Solberg, Valdez, & Villareal, 1994; Solberg & Villarreal,

1997). Social support has been associated with lower levels of anxiety (Felsten & Wilcox, 1992), lower psychological distress (Rodriguez, Mira, Myers, Monis, & Cardoza, 2003), better social adjustment (Schneider & Ward, 2003), and better college adjustment (Friedlander, Reid, Shupak, & Cribbie 2007) in general college populations. For college students who are going far away from home, finding a social support system that is cohesive may provide the safety net to students' overall well being in college.

Although cohesiveness is one characteristic of social groups that may influence college adjustment, this hypothesis has not been studied with college students. Cartwright and Zander (1968, p. 73) initially perceived a highly cohesive group as one that has members with "a strong feeling of wellness" and consist of members who are friendly, loyal, and work together towards a goal; willing to endure pain or frustration for the group; and willing to defend other members against external criticism or attack. The most widely cited definition of cohesiveness refers as "a total field of forces which act on members to remain in the group" (Festinger, Schachter, & Back, 1950). Yalom (2005) described cohesion is important to bound people at a time of extreme discomfort or conflict; members of a cohesive group can feel warmth, comfort, and belongingness. Thus, the core idea of group cohesion is a form of attraction that pulls people together for individuals' good.

Bollen and Hoyle (1990) focused on individual subjective judgments of his or her relationship with the group and purpose of a social group. The authors defined perceived cohesion as "an individual's sense of belonging to a particular group and his or her feelings of morale associated with membership in the group" (p. 482). Bollen and Hoyle

attempted to measure individual perception of their own experience within the group rather than actual causes to characterize cohesion. The authors proposed that a sense of belonging may measure the level that the person identifies with the group and feeling of morale summarizes the negative or positive response to belonging to a group and feeling of value to the group.

Although there is no evidence on the relationship between perceived cohesion of peer groups and college adjustment, a few studies have focused on the effects of group cohesion building on the development of prosocial behaviors and academic performance of school-aged children (Feuerstein, 2000). For example, Lott and Lott (1966) compared differences between high cohesiveness and low cohesiveness groups in elementary classes on completion of school tasks. In this study, cohesiveness was defined as the number and strength of mutual positive attitudes among the members The selection of high and low groups was done based on a sociometric test, where students ($N = 155$) were asked to rate how much they like each other from 1 rated as "I never liked him and don't think I ever will" to 5 rated as "I like him very, very much." Based on this peer-reported data, high cohesive groups were formed consisting of students that highly liked each other and low cohesive groups consisting of students rating each other as highly disliking each other. Students in both groups were asked to first complete a cooperative learning task, then to complete the same task one week later to measure retention and relearning, and third to learn and complete a new task. The results on student's task performance suggested that groups with high cohesiveness outperformed groups with low cohesiveness on all three tasks on learning scores ($p < .05$) and completed the task in a

shorter period of time; t (154) = 2.20, $p < .05$.

Shaw and Shaw (1962) also compared the effects of performance in high-cohesiveness groups versus low-cohesiveness groups on academic performance. In this study, second grade school children (N = 18) were placed in high-cohesiveness group versus low-cohesiveness group based on a sociometric assessment that had students nominate other classmates who they would prefer to or prefer not to work with on school tasks. Students in a group who preferred to work with each other were identified as the high-cohesiveness group, and students in a group who preferred not to work with each other were identified as the low-cohesiveness group. Groups were given cooperative tasks to learn how to spell words. Both groups were given sufficient time to study before taking a spelling test. After one spelling test, the groups were reshuffled to reverse people who were in the high-cohesiveness group with people who were in the low-cohesiveness group and students were given the same study time and test with different but similar level of words to be spelled. After the second test, the researchers asked the children to fill out the sociometric test again. For a third spelling test, children worked in the original high and low cohesiveness groups. Rank order correlation coefficients between cohesiveness and learning were significant; ρ (16) = .47, $p < .05$; and positively correlated showing that students in the higher cohesive groups showed more learning of new tasks. However, cohesiveness and learning were unrelated; ρ (16) =.01, $p < .05$; when students groups were mixed. Although the nature of the tests was still the same, children's sense of belonging may have been affected by different factors such as loyalty towards the original group.

Stewart (2008) investigated the degree that individual student variables and school structural factors predict academic achievement. Data were collected from a national sample of 10th-grade African American students (n = 1,238 within 546 high schools) who participated in a national educational longitudinal study. A clustered regression analysis with the individual and school structural variables as predictors of GPA revealed that school attachment, r (1,236) = .42, $p > .01$; school commitment, r (1,236) = .48, $p > .01$; positive peers, r (1,236) =.12, $p > .05$; and school cohesion ratings, r (1,236) = .14, $p > .01$; (i.e., positive interactions, shared expectations and trust among students, teachers and administrators) were significantly and positively related to minority students' GPA .

The purpose of group cohesiveness has largely been examined in studies examining the effect of low and high cohesiveness on the performance of group completed tasks or goal that the group needs to meet. In a meta-analysis of 49 studies published in social psychology, sport psychology, applied psychology, and management science journals conducted between 1951 and 1991, Mullen and Cooper (1994) examined the significance and magnitude of the cohesiveness and performance relationship as well as the relative contributions of three components of cohesiveness: interpersonal attraction, commitment to task, and group pride. Further, study results were examined to determine whether research paradigm (correlational vs. experimental), degree of interaction (high and low interactions requirements), group reality (a real group whose members had some contact before and after the study vs an artificial group created for the purpose of the study) and group size moderate a cohesiveness-performance effect. Subjects in the

reviewed studies were adolescents or adults and performance were measured either as actual productivity or performance ratings made by someone who was not a group member. Results showed a significant but small effect size (Z_{fisher} = .258 r = .252) from 43 correlational analyses and experimental analysis (Z_{fisher} = .227 r = .223) with 92% of the studies reporting a positive cohesiveness performance effect. Moreover, a significant difference between the magnitudes of the cohesiveness and performance effect between the experimental and correlational studies (Z = 1.987, p = .023) indicated a stronger effect in the correlational studies. There was a significant but small (r = .253) effect for studies that investigated level of group interactions but there were no significant differences between high and low interacting groups. There were also small effects for studies consisting of both artificial (r = .156) and real groups (r = .268) although real groups effects were significantly greater than artificial groups (Z = 4.471, p = 3.94E^-6). Moreover, there was a significant negative relationship between group size and the magnitude of the cohesiveness- performance effect for both artificial (r = -.575) and real groups (r = -.253). Finally, results revealed that only the group commitment to common task to be a significant predictor of the cohesiveness performance effect in the experimental paradigm (r = .234) and in the correlational paradigm (r = .199). In summary, results confirmed a significant but small cohesiveness-performance effect with smaller groups that form naturally and are committed to the group task.

Researchers have also shown that group members report high levels of group cohesiveness when members share a common goal. Senecal, Loughead, and Bloom (2008), for example, examined the effect of common group goals on building

cohesiveness within a group. Eighty-six female high school senior basketball players from eight teams were selected to participate. Four teams in the experimental group participated in a team goal setting strategy and the remaining four teams were in a control group. Cohesion was measured using the Group Environment Questionnaire (Carron, Widmeyer, & Brawley, 1985). The experimental and control groups did not significantly differ in their perception of cohesion at onset of the study, but the experimental groups rated significantly higher levels of group cohesiveness than the control groups after the goal setting strategy was implemented. Univariate analyses revealed that the experimental groups cohesive ratings were greater than control for four dimensions of cohesiveness measured on the survey: individual attractions to the group-task, $F(3, 147) = 2.90$, $p < .05$; individual attractions to the group-social, $F(3, 147) = 4.61$, $p < .05$; group integration-task, GI-T, $F(3, 147) = 4.82$, $p < .05$, and group integration-social, $F(3, 147) = 4.48$. However, the increase in the perception of cohesion within the experimental group was not as significant as the decrease of cohesion within the control group, thus suggesting that not having a common group goal negatively influences the development of a cohesive group.

Although most studies have examined the relationship between cohesivenss and performance, a few have examined the relationship of stress on group cohesion. Morris and colleagues (1976) investigated differences in ratings of group cohesiveness of 70 college students after participating in one of three stressful conditions designed to facilitate three different emotions: fear, embarrassment and ambiguity emotions. Mann Whitney *U* tests revealed that the fear group spent significantly more time in group

interactions than both the anxiety ($U = 0$, $p = .008$, twotailed) and the ambiguity ($U = 1$, $p = .016$) groups. Mann-Whitney U tests also showed that cohesiveness ratings were significantly higher from students in the fear induced condition than the anxiety condition ($U = 1$, $p = .016$) and no significant difference between fear and ambiguity ($U = 6$, $p = .222$). The results of this suggest the possibility that fear leads to more group interaction, possibly as a coping strategy which also strengthens group cohesiveness. More recently, group cohesion has also been positively related to stress tolerance and task performance in military settings (Griffith & Vaitkus, 1999).

Asian Values

Given the reported high stress levels of college Asian students (Atkinson et al., 1995), knowledge of Asian cultural factors that shape the development of cohesive peer groups may be used to effectively develop college programs to assist Asian students to form support systems that relieve college stress. Asian cultural factors may influence the degree to which peer group cohesion.

Even though there is diversity among Asian ethnic communities, there also seems to be shared prominent values between Asian subgroups that may influence how individuals express and cope with their feelings, emotions, and psychological problems encountered during college years as an ethnic minority (Kim & Hong, 2004; Kim & Omizo, 2005). Several unique Asian cultural values, have been shown to be persistent values across many ethnic groups: emotional self-control (Wirtz & Chiu, 2008), interpersonal harmony (Kwan et al., 1997), collectivism, interdependence (Markus &

Kitayama, 1994), emotional control, family hierarchy, avoidance of shame, and saving "face" (Yeh & Huang, 1996). Each of these values signifies a purpose for Asian individuals that in turn may affect the need and function of the group support. For example, emotional self control emphasizes the importance of controlling one's emotions and having inner resources to resolve emotional problems. Emotions such as anger and happiness are considered universal across cultures, but studies have found that the intensity and duration of emotions vary across cultures (Wirtz & Chiu, 2008). In Asian cultures, the amount of time focused on positive mood is about the same as White culture, but Asians have less frequent intense positive affects being expressed (Wirtz & Chiu, 2008). This means that Asians are just as likely to show a consistent positive mood as opposed to extreme levels of happiness or the more thrill seeking kind of excitement. On the other hand, it was found Asians express more negative intense emotions (Wirtz &Chiu, 2008), and this expression may serve the function of preventing future failures (Lee, Aaker, & Gardner, 2000). The purpose of intense negative affect may serve to help the individual to remember the instance when he/she performed an incorrect action such that he/she will remember to avoid the mistake next time. Thus, a heightened negative emotion is treated as "learning a lesson" to prevent similar failures in the future. The trait of encouraging intense negative emotions and suppressing intense positive emotions has a significant implication for the need of a cohesive group by the individual. During stressful times such as college years, it may be harder for Asians students to recover from intense negative emotions and find meaningful solutions on their own. Traditionally, Asians are expected to deal with problems first by themselves, second seek family

support and third close friends (Inman & Yeh, 2006). At the time of difficulty, the individual who is experiencing intense negative feeling may receive guidance on their reactions to stressors and attend to other's emotions within a cohesive support group in a manner that fits a student's cultural belief. Although professional psychological help may be perceived as support that may bring shame and disgrace to the family (Zane & Yeh, 2002), seeking peer support along with family support when dealing with problems can be a highly valued coping skill. Finding a cohesive group means that the individual will have a "norm" in the college setting to help deal with similar problems and avoid missteps.

Asian societies also highly emphasize maintaining harmony. Kwan and colleagues (1997) found a positive relationship between interrelationship harmony in individual lives and life satisfaction among Hong Kong college students. In order for an individual to feel good, it is important for him/her to feel harmoniously connected to others in their relationships. Moreover, individuals adhere to their social roles, as a way to maintain harmony, because it is for the benefit of others as a collective entity (Ivey, Ivey, & Simek-Morgan, 1997). If the individual does not play their proper part, they will violate the social norm and be excluded (Kim, Atkinson, & Umemoto, 2001). More specifically, conformity to norms refers to the importance of conforming to familial and social expectations, following the role expectations (gender, hierarchy) of one's family, and being concerned about preventing bringing disgrace to one's family reputation. On the contrary, White society values self esteem as the main predicator for life satisfaction (Diener & Diener, 1995).

A third Asian value, collectivism, is closely tied to interpersonal harmony, but refers to the consideration of the wishes of the others, particularly the family, to be more important than individual needs (Markus & Kitayama, 1994). Moreover, each individual family member's achievement is a reflection of the entire family honor (Sue, 1994). For an individual to achieve self worth, they have to become more supportive of others, even if at the expense of sacrificing oneself. This representation of the family through individual achievement underlines the importance of avoiding failures so as not to bring shame to the entire family. Collectivist Asian cultures define independence as unnatural, immature, and selfish (Markus & Kitayama, 1994). Moreover, humility is another related value that emphasizes the importance of being humble and not being boastful (Kim, Yang, Atkinson, Wolfe, & Hong, 2001). In collectivist societies, the individual is defined as self in relation to others within social contexts where others, behaviors and reactions are reflected in the individual's feelings and experiences (Markus & Kitayama, 1991). Asian focus on group process may make it hard for an individual to leave their support group and there may be a fear that one will not survive on his/her own (Markus & Kitayama, 1994). In other words, to be independent means the individual is less likely to receive support for such action and may risk abandonment by his or her family or society. In collectivist Asian cultures, the extended family is prioritized along with values of security, obedience, duty, in-group harmony, and personal relationships (Ivey et al., 1997; Tata & Leong, 1994; Zhang, 1994).

College adjustment may be negatively influenced by a number of stressful factors related to strong adherence to Asian values such as maintaining high achievement to

bring honor to their families (Sue, 1994) and being far from family support (Tsai & Uemura, 1988). The value of collective emotional support (Wirtz & Chiu, 2008), the act of seeking harmony in a group setting (Kwan et al., 1997), and the fear of being independent (Markus & Kitayama, 1994) are important factors that may contribute to the importance of peer support for Asian student adjustment to college. As cultural values and norms help guide interpersonal interactions, adherence to Asian values may have a strong relationship to cohesive peer groups and, therefore, moderate the effect of cohesive groups on college adjustment. Physical proximity of peers may also change the support system from primarily family to peer support when individuals go to college.

Demographic Predictors of College Success

A substantial research base has identified predictors of college success. In general, non minority students between age of 18 to 22 from a middle or upper class background are most likely to successfully graduate for college. Those who struggle include first generation college student status who experience more college adjustment problems than students with parents who had also attended college (Zalaquett, 1999).

Although students of color are entering college at an increasingly higher rate, they continue to have lower graduation rates than white students (Seidman, 2005). Research on students of color, including Asian American and Pacific Islanders, experienced challenges related to income and limited English proficiency. Several studies have investigated individual, social and family variables that may also predict college success and adjustment specifically among Asian students. Recently, Vartanian, Karen, Buck, and

Cadge (2007) found that immigrant status, parental educational expectations, family structure (both parents intact), and socioeconomic status (SES) are all positively and significantly related to college graduation and educational attainment. Research has found that individual who had lived away from home during college tend to have higher levels of college adjustment (Mattanah, Lopez & Govern, 2011). Clearly, there are a number of factors to consider that can affect college adjustment and retention both positively and negatively.

Summary and Purpose of Study

Learning to adjust to college social and academic demands can adversely affect students' mental health and academic performance. Adjustment to college is difficult for many Asian students who may be struggling with intense pressure from their parents to achieve academically while also having less access to family support. Despite reported high levels of social anxiety and depression in Asian college students (Cress & Ikeda, 2003; Lau et al., 2009), Asian students who have high adherence to Asian values tend to endorse negative attitudes toward seeking psychological help in college (Kim & Omizo, 2003). Alternatively, seeking support from a strong cohesive group of friends might be one effective and more preferred coping strategy to aid in college adjustment. Having a cohesive peer group can foster a student's sense of belonging and provide an outlet for stressful feelings and experiences encountered at college. Asian students who have strong adherence to Asian values may be highly responsive to a positive effect of group cohesion on college adjustment given that group cohesion is consistent with Asian

cultural emphasis on relationships that embraces interdependence, collectivism, and interpersonal harmony.

Given that Asian values may influence the importance of group cohesion, it is important to examine the potential differences in adherence of Asian values in evaluating the effect of group cohesion on college adjustment. Seeking support from peers as a coping strategy may be a valued strategy that effectively supports positive college adjustment and prevents the development of severe problems. When moving away from home to go to college, finding a form of peer support system to replace parent support might be important in students' overall well being in college. This may be especially important for Asian students, given that in traditional Asian culture, family is relied upon as the primary support for emotional needs (Tsai & Uemura, 1988), and this support system is often no longer easily accessible in college. Additionally, Asian culture has unique values that may influence how group process works within socially supportive peer groups (Markus & Kitayama, 1994). For example, discouragement from independence may influence the need to have a cohesive support group that the family previously provided.

The literature examining the effects of group cohesiveness for successfully meeting the functional purpose of the group has primarily examined the relationship between cohesiveness and completion of various tasks or goals. Results from these studies indicate a significant positive cohesiveness and performance relationship (Gully, Devine, & Whitney, 1995; Mullen & Copper, 1994). No studies, however, have examined the effect of a peer group for functionally meeting emotional needs that facilitate positive

college adjustment. Previous research has also not examined the moderating role of Asian values on the relationship between cohesive peer groups on college adjustment of Asian students. Thus, the present study aimed to expand on previous theory and research on group cohesion and college adjustment for Asian students by examining the impact of group cohesion and Asian values on college adjustment. Based on past research, it was expected that group cohesion would positively correlate with college adjustment, and high Asian value endorsement would enhance the positive effects on group cohesion. The proposed theory is that the level of influence on college adjustment by cohesive group might be dependent on the level of Asian value endorsement. Specific research question were as follows.

1. What is the relationship between peer group cohesion and four dimensions of college adjustment: academic adjustment, social adjustment, personal-emotional adjustment, and attachment?

2. To what extent does Asian values, collectivism, conformity to norms, emotional self-control, family recognition through achievement, and humility, moderate the relationship between peer group cohesion and four dimensions of college adjustment: academic adjustment, social adjustment, personal-emotional adjustment, and attachment?

CHAPTER III

METHODS

Participants

Asian American students and Asian international students (collectively referred to as Asian students) who were attending universities in the United States were recruited in this study. Participants were recruited through emails sent by the researcher to Asian interest groups in university settings nationwide through listservs. One hundred sixty-seven participants were recruited after sending emails on approximately 200 list servs over a span of 3 months. Of those recruited, 11 were excluded due to incomplete data and 4 were excluded due to response set bias based on same patterns of responses for both forward and reverse items. An outlier labeling analysis also identified two additional outlier data points that were excluded from the data (Hoaglin & Iglewicz, 1987). Thus, 150 participants (86 women, 64 men) were included in the study. Table 1 presents a summary of demographic information for the total sample. In sum, participants ages ranged from 17 to 43, with a mean age of 22.09 (SD = 4.56). Within the sample, approximately 22% described themselves as first-generation college students and 68% as first- or second-generation immigrants. Most reported living away from home (74%) and reported having GPAs equal to or higher than 2.5 (99%).

Procedures

An online survey was used to collect data for this study. Prior to administering the

Table 1

Participant's Demographic Information

Variable	*N*	Percent
Gender		
Male	64	42.7
Female	86	57.3
First year college generation		
Yes	30	20.0
No	99	66.0
Living at home		
Yes	39	26.0
No	109	72.7
Age (decade)		
10-20	52	34.7
20-30	85	56.7
30-40	9	6.0
Immigration generational status		
First	48	32.0
Second	54	36.0
Neither	47	31.3
Father education		
Graduate school	48	32.0
4-year college	39	26.0
Some college	20	13.3
Community college	5	3.33
Military	2	1.33
Technical/vocational school	8	5.3
High school	14	9.3
Less than high school	13	8.7
Mother education		
Graduate school	29	19.3
4-year college	43	28.7
Some college	21	14.0
Community college	7	4.7
Technical/vocational school	9	6.0
High school	21	14.0
Less than high school	18	12.0

survey, the Institutional Review Board (IRB) at Utah State University reviewed the study for approval. Next, participants were recruited by sending a personal invitation to listservs such as Asian American Psychological Association and American Psychological Association Division 45, Ethnic Minority Division to request for participation. Leaders of Asian interest group listservs were contacted through email and asked to distribute a recruitment e-mail for the study in their respective organizational listservs (see Appendix A). Listserv leaders' email addresses were obtained by searching on google.com with keywords such as: "Asian Student Association," "Asian American Clubs," "Chinese American Student Association," and variations by state institutions such as "Auburn Asian Association," "Indiana Asian American Association," and so forth. In addition, most of these institutions were contacted through their organizational pages on facebook when there is such page available, to encourage participation. More than 200 organizations were contacted to request for distribution of the email.

Upon receiving the recruitment email about the study and agreeing to participate, participants were linked to an external research database, where a cover letter of informed consent was presented. This IRB approved letter of information provided confidentiality information, the purpose and objectives of the study, and contact persons for questions regarding the study (see Appendix B). Following agreement to participate, the individual was redirected to a secured link to a survey. The survey presented consisted of five questionnaires or instruments in the following order: Student Adaptation to College Questionnaire Incentives, Screener for Peer Groups, Perceived Cohesion Scale for Small Groups, Asian American Value Scale, and a demographic form. Each instrument will be

described below. Finally, incentives were provided by offering participants the opportunity to be one of six winners who would be randomly selected in a raffle to earn an electronic certificate to an internet store at the end of the study. Identifying information was not collected to protect individual's confidentiality. However, if a participant was interested in the raffle, he or she was redirected into a separate, secure database, where they could enter their email addresses for the drawing.

Instruments

College Adjustment

Student adjustment to college was assessed using the Student Adaptation to College Questionnaire (SACQ; Baker & Siryk, 1984). The Student Adaptation to College Questionnaire was developed by Baker and Siryk (1984, 1989, 1999) to measure how well a student WAS adjusting to college. SACQ is a 67-item, self-report questionnaire divided into four subscales: academic adjustment, social adjustment, personal- emotional adjustment, and attachment. As described by the developers of the SACQ's scales (Baker & Siryk, 1999): (a) the academic adjustment subscale "measures a student's success in coping with the various educational demands characteristic of the college experience" (p. 14), (b) the social adjustment subscale "measures a student's success in coping with the interpersonal societal demands inherent in the college experience" (p. 15), (c) the personal-emotional adjustment subscale "focuses on a student's intrapsychic state during his or her adjustment to college, and the degree to which he or she is experiencing general psychological distress and any concomitant somatic problems" (p. 15), and (d)

the institutional attachment subscale measures “ a student’s degree of commitment to educational-institutional goals and degree of attachment to the particular institution the student is attending, especially the quality of the relationship or bond that is established between the student and the institution” (p. 15). Each of these areas have been shown to correlate negatively with college attrition and positively with student grade point average and participation in social events (Baker & Siryk, 1984). Each item is rated by students using a 9-point rating scale ranging from 1 (doesn’t apply to me at all) to 9 (applies very closely to me). The questionnaire reports a full scale score as well as four subscale scores, expressed in both *t* score and percentile score. Higher scores on the full scale and subscales indicate better self-reported adjustment.

Reliability was initially reported in a study conducted by Baker and Siryk (1984) when 300 college students were administered the measure twice a year over a 3-year period. The internal consistency reliabilities were good across administrations with Cronbach alpha’s ranging from .92 to .94 for the full scale, .82 to .87 for the academic adjustment subscale, .83 to .89 for the social adjustment subscale, .73 to .79 for the personal-emotional subscale, and .84 to .88 for the attachment subscale. Several studies have also shown the SACQ to have good content and predictive validity (Asher, 1992). The SACQ has shown internal consistency and construct validity with students from diverse ethnic backgrounds (Hurtado, Carter, & Spuler, 1996; Rice, Cunningham, & Young, 1997). In a study examining college adjustment with Chinese and American students with ADHD (Norvilitis, Sun, & Zhang, 2010), the coefficient alpha for the social adjustment subscale was good (American $\alpha = .84$, Chinese $\alpha = .84$). In the sample from

this study, coefficient alpha was acceptable although somewhat higher in the American sample (American α = .86, Chinese α = .78). These ranges are similar to those specified in earlier literature (Baker & Siryk, 1989). Cronbach's coefficient alphas for the collected sample are presented in Table 2.

Screener for Small Peer Groups

A screener was developed for this study (see Appendix C). The purpose of this screener was to exclude individuals who could not identify two or more friends, which was defined as a small group by the current study.

Table 2

Means, Standard Deviations, and Skewness for All Variables

Scale	Mean	*SD*	Min.	Max.	Skewness	*SE*	Cronbach alpha
SACQ Full	337.93	19.20	287	386	-0.173	0.198	0.95
Academic adjustment	121.00	10.16	93	154	0.224	0.201	0.89
Social adjustment	96.46	11.05	65	126	-0.082	0.200	0.89
Personal-emotional adjustment	72.50	8.71	49	97	-0.038	0.202	0.85
Attachment	79.91	12.10	46	100	-0.656	0.206	0.90
PCS	27.14	14.72	0	42	-0.812	0.198	0.98
AASV Full	171.77	23.98	101	225	-0.253	0.198	0.82
Humility	24.44	6.44	6	40	-0.083	0.198	0.75
Family recognition	62.98	16.40	20	98	-0.270	0.199	0.91
Collectivism	27.96	5.29	17	43	0.278	0.198	0.53
Conformity to norms	27.48	7.20	8	47	0.127	0.198	0.75
Emotional self-control	28.79	7.05	12	52	-0.088	0.199	0.71

SCAQ = Student Adaptation to College Questionnaire (Range from 67 to 603)
PCS = Perceived Cohesion Scale for Small Groups (Range from 0 to 42)
AAVS = Asian American Value Scale (Range from 42 to 294)

Perceived Small-Group Cohesion

Perceived group cohesion was assessed based on ratings on the Perceived Cohesion Scale for Small Groups (PCS; Bollen & Hoyle, 1990; Chin, Salisbury, Pearson & Stollak, 1999). The PCS for Small Groups (see Appendix D), an adaption to the original PCS scale, is a six-item measure defined as a group member's personal assessment of his or her membership. The scale includes two dimensions of perceived cohesion: Sense of belonging and feelings of morale (Bollen & Hoyle, 1990; Chin et al., 1999). Sense of belonging gauges the degree to which an individual perceives himself or herself as part of the group, and feelings of morale gauges an individual's emotional perception to belonging to the group. Sense of belonging was assessed by the following three items: (a) "I feel a sense of belonging to ____," (b) "I feel that I am a member of the ____ community," and (c) "I see myself as part of the ____ community." Feelings of morale was assessed by the following items: (a) "I am enthusiastic about ____," (b)"I am happy to be at [live in] ____," and (c) "____ is one of the best schools [cities] in the nation." Responses are recorded on Likert-type scales ranging from 1 (strongly disagree) to 4 (neither) to 7 (strongly agree). High scores on each individual item indicate higher sense of belongingness for the individual with the given group.

This measure was originally designed to be used in large groups (Bollen & Hoyle, 1990). Chin and colleagues (1999) revised the large group scale for assessing perceived cohesion for small groups and conducted a study to validate the scale. In this study, 330 undergraduate subjects rated perceived small group cohesiveness on an adapted PCS after completing problem solving tasks working in groups of 4 to 5 students

to reach a solution to a problem. Chin and colleagues reported individual item loading for the two constructs and the group cohesion construct above .70, which is above a minimal standard of .60 suggested by Bagozzi and Yi (1988). However, the fit was better when examining loadings for a two-factor verses a single-factor model. A two-factor model yielded a λ^2 value of 69.807, with 8 degrees of freedom and a single-factor model yielded in a λ^2 value of 151.668 with 9 degrees of freedom. The difference (81.661) is greater than the critical λ^2 value of 3.84 (1 df, p = .05), suggesting that the two constructs, belonging and morale, are distinct factors. However, the correlation between two test constructs was at r = .92 and Cronbach's alphas for the belonging and morale constructs with group cohesion were at .95 and .87, respectively. Cronbach's coefficient alpha for the collected sample is presented in Table 2.

Asian Values

Adherence to Asian cultural values was measured using the Asian American Values Scale -Multidimensional (AAVS-M; Kim, Li, & Ng, 2005). This scale (see Appendix E) is a 42-item measure with 5 subscales reflecting sociocultural norms of traditional Asian cultural values: collectivism, conformity to norms, emotional self-control, family recognition through achievement, and humility. A principal components analysis (PCA) with varimax rotation revealed five reliable domains that possessed adequate internal consistencies: Collectivism (n = 7, α = .89), Conformity to Norms (n = 7, α = .79), Emotional Self-Control (n = 8, α = .80), Family Recognition through Achievement (n = 14, α = .90), and Humility (n = 6, α = .81). For Asian American samples (n= 210; Par k & Kim, 2008) , coefficient alphas of .79, .74, .75, .87,

and .71 were obtained for the Collectivism, Conformity to Norms, Emotional Self-Control, Family Recognition through Achievement , and the Humility subscales respectively. Students respond to each item on a 7-point Likert-type scale (1 = strongly disagree to 7 = strongly agree). Higher scores obtained on items for each of the 5 domains indicate stronger adherence to the Asian cultural value measured. Cronbach's coefficient alphas for the collected sample are presented in Table 2.

Demographic Form

A brief demographics questionnaire was developed to gather information from participants. Information obtained was gender, age, ethnicity, parent education, college year, education level, college state, grades, living situation, first college generation status, immigration generation status, college level, and years in the United States (see Appendix F).

CHAPTER IV

RESULTS

Results will be presented in four sections: (a) descriptive analysis of results from the PCS, AAVS, and SACQ, (b) preliminary analysis of participant group differences, (c) bivariate correlations between all variables, and (d) moderation analysis.

Descriptive Analysis

Table 3 shows participants' demographic information with PCS, AAVS, and SACQ. It also shows means, standard deviations, and Cronbach's alpha for participants' results from the total scores on the PCS, AAVS, and SACQ. Descriptive summary of the subscale scores on the SACQ and AAVS are also presented in Table 3 as recommended by authors for interpretation (Baker & Siryk, 1999). On average, participants reported higher levels than the center score on the measures of Group Cohesion and Asian values. The average score on the Full scale and subscales on the SACQ fell within the low to very low adjustment range (*t* scores range from 36 to 40) for first and second first year semester male and female students. Students also reported higher level of academic adjustment as compared to other sub categories of college adjustment.

Based on normality tests, PCS scale and SACQ attachment subscale violated the assumption of normality and the tests of skewness showed skewness greater than twice the standard error. A square root transformation method for the PCS variable (i.e., square root (constant – score)) eliminated the skewness problem (post transform skewness = .351, *SE* = .198). The constant used in this transformation was adding one to the largest

Table 3

Demographic Means and Standard Deviations for Full Scales

	SCAQ		PSC		AAVS	
Variable	Mean	*SD*	Mean	*SD*	Mean	*SD*
Gender						
Male	338.86	19.18	26.16	15.62	174.48	23.44
Female	337.24	19.30	27.87	14.07	169.74	24.31
First year college generation						
Yes	336.73	16.03	21.80	16.79	178.97	21.78
No	339.22	20.95	29.25	13.73	170.03	24.06
Living at home						
Yes	333.62	21.72	26.00	16.47	172.36	23.68
No	339.22	17.86	27.36	14.17	171.66	24.34
Age (decade)						
10	338.39	17.18	27.33	15.43	173.12	24.30
20	337.27	19.99	26.18	14.71	170.75	24.32
30+40	340.84	16.04	31.00	12.81	175.22	25.13
Immigration generational status						
First	336.94	17.87	26.29	16.02	173.10	26.22
Second	335.03	21.56	29.26	14.19	175.44	19.38
Neither	342.51	17.25	25.26	13.92	166.57	25.97
Father education						
Graduate school	340.81	23.27	31.50	11.78	169.85	24.94
4-year college	336.24	17.63	26.00	14.99	170.21	25.09
Some college	338.05	15.16	20.45	15.56	168.60	21.71
Community college	336.41	8.36	13.80	16.35	159.60	38.41
Military	350.00	31.11	25.50	23.34	161.00	48.08
Technical/vocational school	343.88	10.84	34.75	10.24	180.38	20.09
High school	334.04	18.74	26.79	15.67	182.86	15.67
Less than high school	332.31	20.05	24.69	17.26	178.92	19.52
Mother education						
Graduate school	337.33	26.48	31.17	12.68	171.90	19.91
4-year college	340.94	16.34	26.77	14.64	168.91	27.09
Some college	333.92	15.67	23.52	15.59	168.24	28.89
Community college	337.00	18.93	21.86	14.06	168.57	23.48
Technical/vocational school	352.84	14.88	33.78	11.20	170.33	28.56
High school	332.80	16.25	26.05	16.81	176.57	17.47
Less than high school	336.18	19.52	24.78	16.08	180.11	22.13

SCAQ = Student Adaptation to College Questionnaire (Range from 67 to 603).
PCS = Perceived Cohesion Scale for Small Groups (Range from 0 to 42).
AAVS = Asian American Value Scale (Range from 42 to 294).

test score, 42 such that this constant is subtracted from each PSC score so that the smallest score is 1. A similar square root transformation was also used for SACQ attachment subscale to eliminate the skewness issue (post transform skewness=.461, *SE* = .206). These transformation correction data were used in all statistical calculations conducted in this study (see Figures 1-4).

Preliminary Analysis of Group Differences

Independent sample *t* tests were conducted to assess for significant differences between gender, first generation college student, and living at home on group cohesion, college adjustment and Asian values (see Table 4). There was a significant difference at $p < .05$ level between first generation college students only for the PCS measure. This result suggests that students who self-identified as a first generation college students

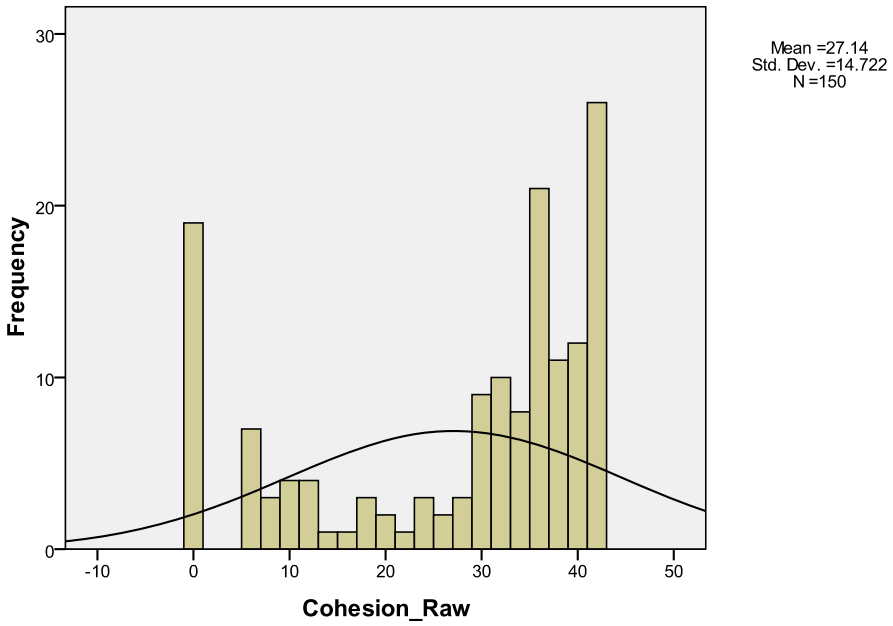

Figure 1. Pretransformation group cohesion distribution.

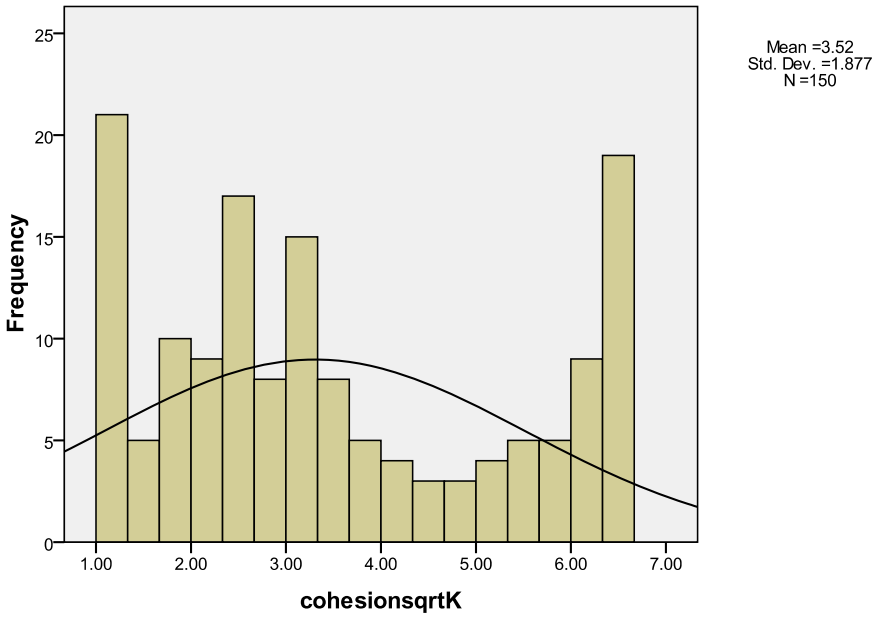

Figure 2. Posttransformation group cohesion distribution.

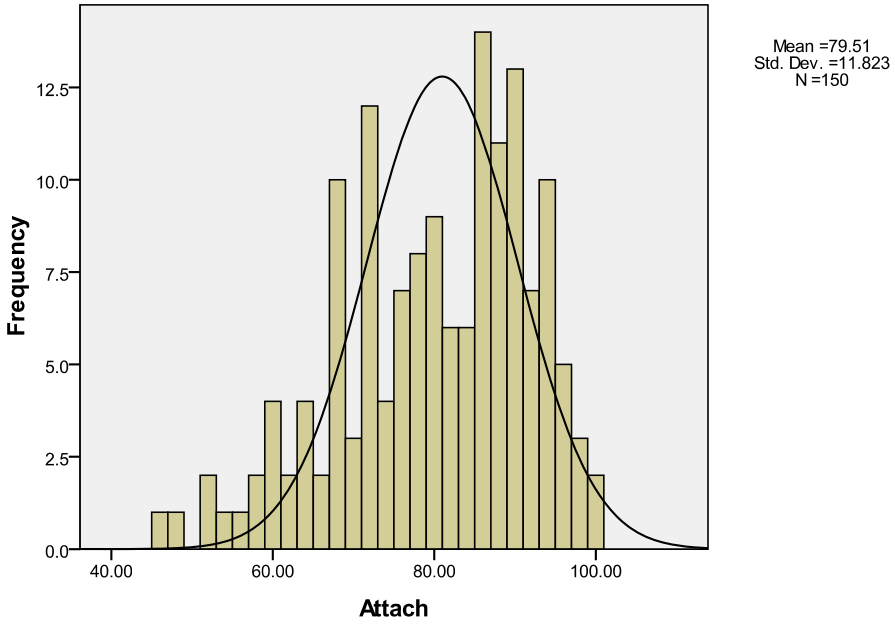

Figure 3. Pretransformation attachment distribution.

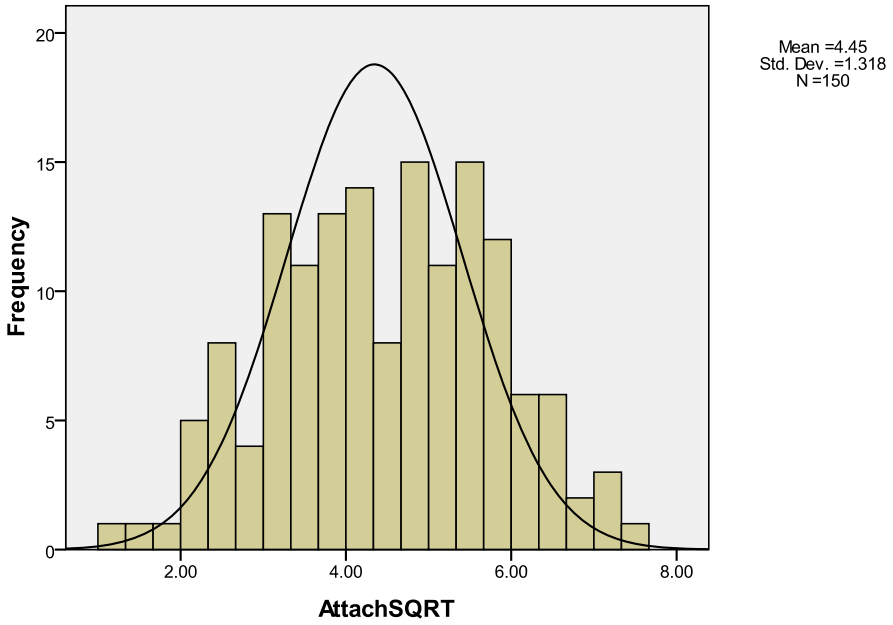

Figure 4. Posttransformation attachment distribution.

Table 4

Summary of Independent Sample t *Tests*

Variable	Measure	*t*	*df*	*p*	Cohen's *d*
Gender	SACQ	0.563	147	0.574	0.09
	PCS	0.754	147	0.452	0.12
	AAVS	1.279	147	0.203	0.21
First generation student	SACQ	-0.601	127	0.549	0.11
	PCS	2.358	127	0.020*	0.42
	AAVS	1.820	127	0.071	0.32
Living at home	SACQ	-1.584	146	0.115	0.28
	PCS	0.032	146	0.974	0.01
	AAVS	0.155	146	0.876	0.03

SACQ = Student Adaptation to College Questionnaire
PCS = Perceived Cohesion Scale for Small Groups
AAVS = Asian American Value Scale

* Significance at the .05 level

endorsed higher group cohesion levels than those who were not first year college generation students. There was no significant difference between gender or living at home status for AAVS, PCS, or SACQ measures.

One-way ANOVA between subject analyses were conducted to compare the effect of age by decade, immigrant generation status, father's education level and mother's education level on group cohesion, college adjustment and Asian values (see Table 5). There was no significant difference at the $p < .05$ level for the age by decade levels (teens, 20s, 30s+), generational status levels (first, second, neither), and mother's education levels (4 year college, some college, community college, military, technical/vocational, high school, less than high school). There was a significant difference at the $p < .05$ level on cohesion for father education levels. Post hoc analysis using the Tukey HSD test, however, did not reveal any differences between the mean score of the different father education level (see Table 6).

Bivariate Relationships Among Variables

Pearson's r correlations were conducted to determine the relationship between Asian values (including subscales), group cohesion and college adjustment level (including subscales. As shown in Table 7, the results did not yield any significance between Full scale scores. However, there were several significant relationships found between subscale scores. Specifically, academic adjustment was significantly correlated with the conformity to norms ($r = .168$); personal-emotional adjustment was significantly correlated with emotional self-control ($r = .190$); personal-emotional adjustment was

Table 5

Summary of One-Way Between-Subjects ANOVAs

Variable	Measure	Source	*df*	*SS*	*MS*	*F*	*p*
Age (decade)	SACQ	Between groups	2	123.623	61.811	.163	.850
		Within groups	143	54391.795	380.362		
		Total	145	54515.418			
	PCS	Between groups	2	3.985	1.993	.557	.574
		Within groups	143	511.285	3.575		
		Total	145	515.270			
	AAVS	Between groups	2	287.852	143.926	.243	.785
		Within groups	143	84844.675	593.319		
		Total	145	85132.527			
Immigration generation status	SACQ	Between groups	2	1485.165	742.582	2.033	.135
		Within groups	146	53330.422	365.277		
		Total	148	54815.587			
	PCS	Between groups	2	9.063	4.532	1.298	.276
		Within groups	146	509.772	3.492		
		Total	148	518.835			
	AAVS	Between groups	2	2080.980	1040.490	1.825	.165
		Within groups	146	83237.302	570.119		
		Total	148	85318.282			
Father education	SACQ	Between groups	7	1718.007	245.430	.652	.712
		Within groups	141	53097.580	376.579		
		Total	148	54815.587			
	PCS	Between groups	7	52.443	7.492	2.265	.032*
		Within groups	141	466.392	3.308		
		Total	148	518.835			
	AAVS	Between groups	7	4421.431	631.633	1.101	.366
		Within groups	141	80896.851	573.737		
		Total	148	85318.282			
Mother education	SACQ	Between groups	6	3350.950	558.492	1.531	.172
		Within groups	141	51440.047	364.823		
		Total	147	54790.997			
	PCS	Between groups	6	25.453	4.242	1.212	.303
		Within groups	141	493.377	3.499		
		Total	147	518.830			
	AAVS	Between groups	6	2438.265	406.378	.691	.657
		Within groups	141	82864.762	587.693		
		Total	147	85303.027			

SACQ = Student adaptation to college questionnaire.
PCS = Perceived cohesion scale for small groups.
AAVS = Asian American value scale.

*Indicates the mean difference is significant at the .05 level.

Table 6

Summary of Pairwise Comparisons Using Post Hoc Tukey HSD Statistic for Father's Education on the Cohesion Measure

Variables	Variables	Mean difference	*SD*	*p* value
Graduate school	4 year college	-.69086	.39208	.647
	Some college	-1.39584	.48404	.084
	Community college	-2.20216	.85467	.173
	Military	-.42196	1.31255	1.000
	Technical/vocational school	.50081	.69454	.996
	High school	-.60266	.55243	.958
	Less than high school	-.70334	.56864	.919
4-year college	Some college	-.70498	.50020	.852
	Community college	-1.51130	.86392	.655
	Military	.26890	1.31859	1.000
	Technical/vocational school	1.19167	.70589	.695
	High school	.08820	.56664	1.000
	Less than high school	-.01248	.58246	1.000
Some college	Community college	-.80632	.90936	.987
	Military	.97387	1.34880	.996
	Technical/vocational school	1.89665	.76083	.207
	High school	.79317	.63376	.915
	Less than high school	.69250	.64794	.962
Community college	Military	1.78020	1.52165	.939
	Technical/vocational school	2.70297	1.03683	.162
	High school	1.59950	.94753	.695
	Less than high school	1.49882	.95707	.770
Military	Technical/vocational school	.92278	1.43782	.998
	High school	-.18070	1.37482	1.000
	Less than high school	-.28137	1.38142	1.000
Technical/vocational school	High school	-1.10348	.80606	.870
	Less than high school	-1.20415	.81726	.820
High school	Less than high school	-.10067	.70051	1.000

Table 7

Correlations for College Adjustment, Cohesion, and Asian Values Measures

Measure	AAVS values total	Humility	Family recognition	Collectivism	Conformity to norms	Emotional self-control	PSC total
SACQ Total	.049	.127	-.043	.032	.136	-.019	-.078
Academic adjustment	.064	.089	-.029	.006	.168*	-.017	-.058
Social adjustment	-.016	-.001	-.014	.131	.025	-.118	-.095
Personal-emotional adjustment	.063	.074	-.054	.015	.081	.190*	.170*
Attachment	-.031	-.060	-.054	.023	-.089	.145	.223**

SACQ = Student Adaptation to College Questionnaire.
PCS = Perceived Cohesion Scale for Small Groups.
AAVS = Asian American Value Scale.
* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

significantly correlated with group cohesion main scale (r = .170); and attachment was significantly correlated with group cohesion main scale (r = .223). All significant correlations were positive and showed a small effect based on Cohen's (1988) criteria: r = .10 as a small effect, r = .30 a medium effect, and r = .50 a large effect.

Moderation Analysis

The goal of the final analyses in this given study was to examine whether the effect of group cohesion on different dimensions of college adjustment was moderated by the level of the student's Asian cultural value endorsements. In order to test this hypothesis, the rating scores of two predicating variables (group cohesion, Asian values) were centered around the mean to reduce the collinearity between the main effect and interaction terms (Baron & Kenny, 1986). Then, group cohesion and Asian values were analyzed for significance with the four subscales of college adjustment outcome variables (academic adjustment, social adjustment, personal emotional adjustment, and attachment)

and full scale using a hierarchical multiple regression procedure. Lastly, an interaction term was calculated (group cohesion x Asian values) and entered into the regression. A significant effect from the interaction term and SACQ would indicate that the group cohesion rating levels is dependent on the rating level of the Asian values in predicating college adjustment. This analysis was also conducted with the subtest scores reflecting sociocultural norms of traditional Asian cultural values on the AAVS: humility, collectivism, family recognition of achievement, conformity of norms, and emotional self-control.

As shown in Tables 8-12, a few significant main effects were found that were consistent with bivariate analyses. There was only one significant interaction effect found between humility and group cohesion predicting personal emotional adjustment. The graphed interaction shown in Figure 5 suggests that individuals who had lower Asian value of humility were more emotionally adjusted with high levels of group cohesion. One interaction effect that was not significant but may be worth exploring was between family recognition of achievement and group cohesion predicting social adjustment (p = 0.06). Interpretation of the graphed interaction in Figure 6 suggests that individuals who reported having higher Asian value, family recognition of importance of education, and higher level of group cohesion reported lower levels of social adjustment. The effect of cohesion on academic adjustment and attachment did not appear to differ by the levels of reported Asian values.

Table 8

Hierarchical Regressions Assessing Moderating Effects of Asian Values for Asian Students on Academic Adjustment (N = 150)

Step	Predictor	Adj R^2	*F* change	*P*	Beta	*t*	*p*
1	Asian values	-0.006	0.549	0.575	0.065	0.78	0.437
	Cohesion				-0.059	-0.707	0.481
2	Interaction	-0.013	0.055	0.816	0.02	0.233	0.816
1	Humility	0	0.971	0.381	0.101	1.204	0.231
	Cohesion				-0.075	-0.893	0.374
2	Interaction	-0.006	0.256	0.614	0.042	0.506	0.614
1	Family recognition	-0.002	0.012	0.421	-0.045	-0.529	0.598
	Cohesion				-0.108	-1.272	0.205
2	Interaction	-0.009	0	0.931	-0.007	-0.087	0.931
1	Collectivism	0.003	0.249	0.78	0.009	0.104	0.918
	Cohesion				-0.059	-0.702	0.483
2	Interaction	0	0.066	0.797	0.022	0.258	0.797
1	Conformity to norms	0.016	2.193	0.116	0.163	1.966	0.051
	Cohesion				-0.037	-0.445	0.657
2	Interaction	0.013	0.545	0.462	0.061	0.738	0.462
1	Emotional self-control	-0.012	0.18	0.836	-0.002	-0.021	0.983
	Cohesion				-0.05	-0.565	0.573
2	Interaction	-0.015	0.581	0.447	-0.073	-0.763	0.447

Table 9

Hierarchical Regressions Assessing Moderating Effects of Asian Values for Asian Students on Social Adjustment (N = 150)

Step	Predictor	Adj R^2	*F* change	*P*	Beta	*t*	*p*
1	Asian values	-0.005	0.669	0.514	-0.014	-0.174	0.862
	Cohesion				-0.095	-1.141	0.256
2	Interaction	-0.001	1.559	0.214	-0.104	-1.248	0.214
1	Humility	0.009	0.672		0.016	0.195	0.845
	Cohesion				-0.098	-1.16	0.248
2	Interaction	0.003	0.476	0.491	0.057	0.69	0.491
1	Family recognition	-0.002	0.871	0.421	-0.026	-0.312	0.756
	Cohesion				-0.11	-1.31	0.792
2	Interaction	0.015	3.389	0.068	-0.152	-1.841	0.068
1	Collectivism	0.013	1.951	0.146	0.132	1.604	0.111
	Cohesion				-0.096	-1.172	0.243
2	Interaction	0.007	0.191	0.663	-0.036	-0.437	0.663
1	Conformity to norms	-0.005	0.661	0.518	0.011	0.127	0.899
	Cohesion				-0.093	-1.11	0.269
2	Interaction	-0.006	0.829	0.364	-0.076	-0.91	0.364
1	Emotional self-control	0.004	1.315	0.272	-0.101	-1.17	0.244
	Cohesion				-0.066	-0.771	0.442
2	Interaction	0.001	0.545	0.461	0.069	0.738	0.461

Table 10

Hierarchical Regressions Assessing Moderating Effects of Asian Values for Asian Students on Personal Emotional Adjustment (N = 150)

Step	Predictor	Adj R^2	*F* change	*P*	Beta	*t*	*p*
1	Asian values	0.019	2.414	0.093	0.064	0.772	0.114
	Cohesion				0.171	2.061	0.041
2	Interaction	0.019	0.987	0.322	-0.082	-0.993	0.322
1	Humility	0.017	2.242	0.11	0.043	0.511	0.61
	Cohesion				0.162	1.92	0.057
2	Interaction	0.07	9.078	0.003	-0.243	-3.013	0.003
1	Family recognition	0.018	2.311	0.103	-0.024	-0.287	0.774
	Cohesion				0.174	2.049	0.042
2	Interaction	0.013	0.288	0.592	-0.045	-0.537	0.592
1	Collectivism	0.015	2.113	0.125	0.009	0.109	0.913
	Cohesion				0.17	2.047	0.04
2	Interaction	0.014	0.788	0.376	0.075	0.888	0.376
1	Conformity to norms	0.026	2.936	0.056	0.106	1.269	0.207
	Cohesion				0.184	2.213	0.028
2	Interaction	0.02	0.101	0.751	0.026	0.318	0.751
1	Emotional self-control	0.038	3.777		0.152	1.766	0.08
	Cohesion				0.129	1.5	0.136
2	Interaction	0.034	0.448	0.505	-0.062	-0.669	0.505

Table 11

Hierarchical Regressions Assessing Moderating Effects of Asian Values for Asian Students on Attachment (N = 150)

Step	Predictor	Adj R^2	*F* change	*P*	Beta	*t*	*p*
1	Asian values	0.036	3.604	0.03	-0.25	-0.301	0.764
	Cohesion				0.222	2.659	0.009
2	Interaction	0.019	2.769	0.098	-0.139	-1.664	0.098
1	Humility	0.045	4.244	0.016	-0.096	-1.143	0.255
	Cohesion				0.238	2.823	0.005
2	Interaction	0.039	0.026	0.723	-0.03	-0.355	0.723
1	Family recognition	0.045	4.241	0.016	-0.019	-0.222	0.825
	Cohesion				0.24	2.839	0.005
2	Interaction	0.057	2.674	0.104	-0.136	-1.635	0.104
1	Collectivism	0.036	3.577	0.031	0.017	0.199	0.842
	Cohesion				0.222	2.66	0.009
2	Interaction	0.029	0.088	0.767	0.025	0.297	0.767
1	Conformity to norms	0.039	3.778	0.025	-0.055	-0.649	0.517
	Cohesion				0.214	2.533	0.012
2	Interaction	0.044	1.706	0.194	-0.109	-1.306	0.194
1	Emotional self-control	0.043	4.059	0.019	0.093	1.069	0.287
	Cohesion				0.196	2.262	0.025
2	Interaction	0.051	2.127	0.147	-0.135	-1.458	0.147

Table 12

Hierarchical Regressions Assessing Moderating Effects of Asian Values for Asian Students on College Adjustment (N = 150)

Step	Predictor	Adj R^2	*F* change	*P*	Beta	*t*	*p*
1	Asian values	-0.005	0.626	0.535	0.048	0.59	0.556
	Cohesion				-0.078	-0.946	0.346
2	Interaction	-0.011	0.104	0.747	0.027	0.323	0.747
1	Humility	0	0.971	0.381	0.101	1.204	0.231
	Cohesion				-0.075	-0.893	0.374
2	Interaction	-0.006	0.256	0.614	0.042	0.506	0.614
1	Family recognition	-0.002	0.87	0.421	-0.045	-0.529	0.598
	Cohesion				-0.108	-1.272	0.205
2	Interaction	-0.009	0.008	0.931	-0.007	-0.087	0.931
1	Collectivism	-0.01	0.249	0.78	0.009	0.104	0.918
	Cohesion				-0.059	-0.703	0.453
2	Interaction	-0.017	0.066	0.797			0.797
1	Conformity to norms	0.016	2.183	0.116	0.163	1.966	0.051
	Cohesion				-0.037	-0.445	0.657
2	Interaction	0.013	0.545	0.462	0.061	0.738	0.462
1	Emotional self-control	-0.012	0.18	0.836	-0.002	-0.021	0.983
	Cohesion				-0.05	-0.565	0.576
2	Interaction	-0.015	0.581	0.447	-0.073	-0.762	0.447

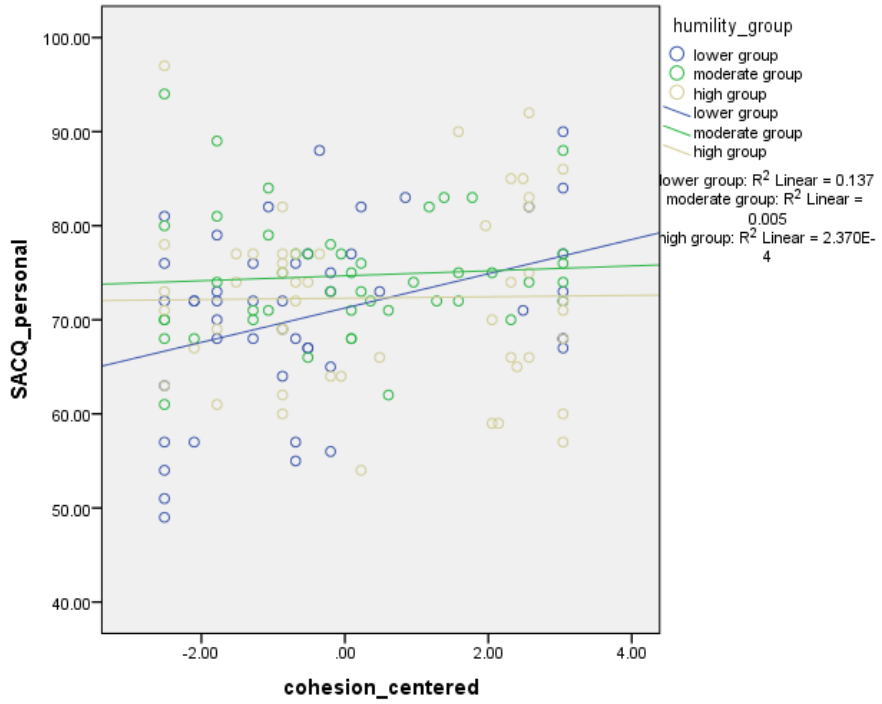

Figure 5. Interaction between humility and cohesion on SACQ.

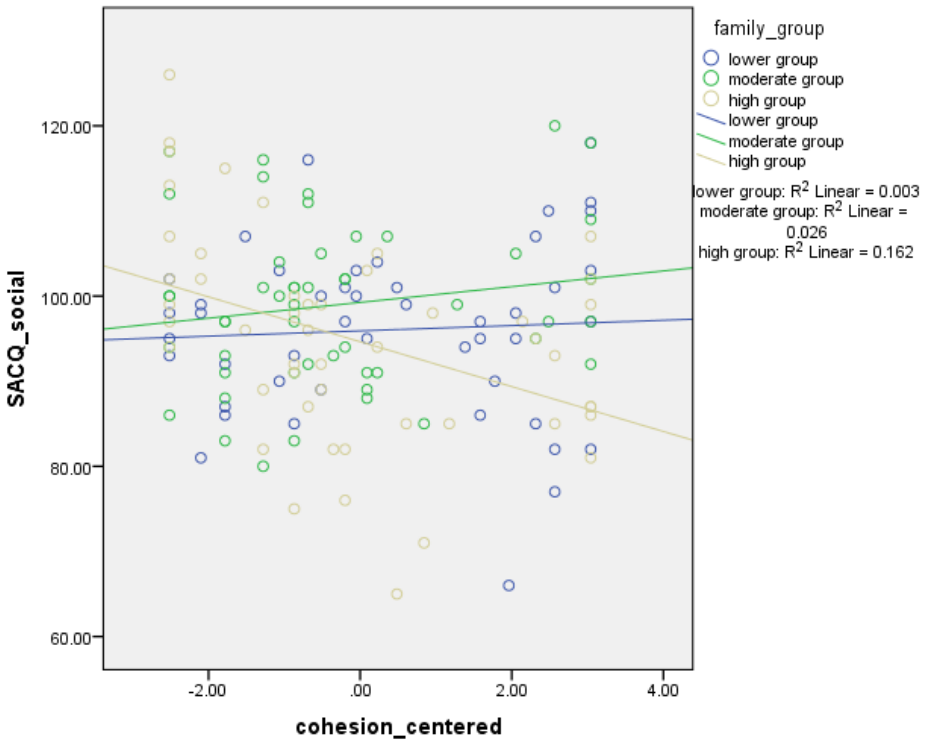

Figure 6. Interaction between family recognition of achievement and cohesion on SACQ.

CHAPTER V

DISCUSSION

Attending college is a stressful experience that can lead to adjustment problems such as depression, loneliness, and academic difficulties for any student who has few coping strategies. Seeking support from peers as a coping strategy may be a valued strategy that effectively supports positive college adjustment and prevent the development of severe problems. Strong adherence to traditional Asian culture may also influence how group process works within socially supportive peer groups (Markus & Kitayama, 1994). Present study explored the role of Asian values on the relationship between peer group cohesion and four domains of college adjustment: academic adjustment, personal emotional adjustment, social adjustment and college attachment among Asian college students. Although it was hypothesized that stronger adherence Asian values would positively enhance the effect of cohesion on college adjustment, specifically personal emotional adjustment, social adjustment and college attachment, the results from this study showed that Asian values do not moderate the effects of cohesion on college adjustments with one exception.

Although there is substantial research showing that social support plays a positive role in decreasing negative effects of stressful experiences, the construct, cohesion, is only one component of social support that may not adequately explain any positive effects that social support may be having on college adjustment. Alternatively, given the lower SACQ scores, these results may indicate that having a strong cohesive peer group that may support Asian values beliefs is simply not strong enough to cope with college

stress. Asian students also are coping with experiences such as acculturation, ethnic identity, racism, and discrimination. Finally, the type of measure used to measure cohesion may have not adequately captured the actual function of the group since this measure evaluated an individual's view of the group which may not have supported the group's view of cohesiveness. The present way of utilizing the scale captured the belongingness and morale felt by the group member, but not emotional support, which was one of the more important construct interested by the study. The present study's focus is primarily on the social connectedness of an individual within the group, and how that group provides for the individual. Additionally, in the cases when individual did not report having a group of two or more friends, present study considered that as lack of having a cohesive group. However, perhaps having one supportive friend is in itself significant, not just the need for a group of friends as the study originally suggested. Examining differences of having one close friend versus multiple friends might further examine the influence of social support with or without cohesive groups. Finally, the group cohesive scale has been mostly designed for measuring outcome based tasks in group settings, such as job or school related performance in goal accomplishing, which overlooks the emotional connectedness, and may be a simplistic way to evaluate friendship formation and support.

Furthermore, the present study supported findings that confirmed what we see with Asian student population in the literature. Based on the initial examination of differences in demographic variables, only first generation college student status revealed a difference on group cohesion variable. The literature has also shown that Asians tend to

be minimally affected by demographic factors that usually affect other disadvantaged ethnic groups (Vartanian et al., 2007).

As hypothesized, no significant relationship was found between Asian values and full scale college adjustment scores. However, adherence to conformity to norm was modestly associated with higher levels of academic adjustment. Conformity to norms emphasizes the importance of adherence to one's societal expectations, norms and practices, which may reflect an individual's focus on education as the norm and social expectation in Asian society. Moreover, adherence to emotional self-control demonstrated a small but significant association with higher levels of personal-emotional adjustment. Considering that emotional self-control is one way to handle stressful emotions, it is interesting to note that internally handling emotions is related to less distress. Perhaps successfully following through on a highly valued cultural strategy provides less distress and focus on more emotional responsibility towards the group than burdening others with his or her problems. Keeping control of emotions may also cause less distress if the family is protected from knowing of college struggles. Asians also value and are less distraught by the expression of more negative emotions rather than positive intense emotions because attention to the negative functionally highlights mistakes and helps to learn how to prevent future similar mistakes (Lee et al., 2000; Wirtz & Chiu, 2008).

The study did not find any significant relationship between group cohesion and the full college adjustment scale score, small positive associations were found between cohesion and personal-emotional adjustment and between cohesion and attachment adjustment. These findings suggest that perhaps being a member of a cohesive group may

be a coping strategy that helps students feel more bonded towards the peers and helps individual emotionally handle stress in college. Strong cohesive group and peer emotional support may contribute to Asian students feeling more satisfied while attending college environment. Asian values did not appear to influence or change above relationships.

Although little is known about the effect of coping strategies when managing stress in different social cultural context, the primary hypothesis of this study was that college adjustment would increase as the interaction between Asian values and group cohesion increases. The results revealed that group cohesion did not appear to consistently influence college adjustments across different dimensions of Asian values. Collectivism and conformity to norms can be expected to predicate college adjustment, because they are conducive factors in forming groups, because they meant sacrificing individuality for the common good of the group and in-group harmony (Wagner, 1995). Collectivistic individuals are also more likely to be closely connected with others and follow traditional group norms and behavior. However, the results did not seem support this hypothesis, which suggest that perhaps the most important predicator in group cohesion formation is indeed working towards a common goal, education, instead of the willingness to sacrifice individuality.

Family recognition, humility or emotional self control was not expected to influence college adjustment, because these factors did not seem prevalent in group formation or function. However, the results indicate that those students reporting a lower humility values showed higher levels of personal emotional adjustment with high

cohesive peer groups. Humility is the lack of boasting or publicizing one's accomplishments. Perhaps cohesive support is more important to college adjustment for individuals that relieve stress by talking or possibly bragging about their college achievements. Although individuals who boast are viewed in Asian cultures as being disrespectful to the group and disruptive to group harmony, this result may also reflect differences in conflicting cultural values between Asian versus White in peer group functioning consisting of diverse group members. While 86% of the participants reported having Asian friends, 43% reported having White friends as part of their peer group showing some diversity in the peer groups. Cohesive peer groups that provide the opportunity for one to openly discuss achievements and perhaps discuss accomplishments to the point of boasting may be more acceptable or needed to develop and maintain strong cohesive groups that consisted of white group members. Additional research may further explore the role of humility on cohesiveness within diverse peer groups and the effect on social support to buffer negative effects of college demands.

A weak interaction effect that may be interesting to further investigate is between family recognition of academic value and group cohesion ($p = 0.06$) in predicting social adjustment. This finding is interesting, because it suggests that when family pressure of educational success dictates a student's life experience in college life, even if the individual is able to form a group that has high cohesiveness, the individual will still perceive lack of social adjustment with the college environment. Each individual's achievement is a reflection of the family honor (Sue, 1994). For an individual who identifies with the importance of family honor, having a cohesive peer

group may reflect the establishment of the common goal of education and achievements, but does not provide the emotional belongingness and acceptance in the group.

It is important to note that the small number of participants with low group cohesion endorsement (28%) and with high college adjustment scores (19%) may not have provided an adequate representation of the relationships between group cohesion and college adjustment. Interestingly of the 92 participants in this sample who reported Asian values above the scale mean, 70 (76%) reported high cohesion levels. Of the 58 student who reported lower Asian values, 36 (62%) reported high group cohesion. Although cohesive peer groups appeared to be occurring in both high and low Asian value groups, students endorsing high Asian values were slightly more likely to have stronger cohesive groups. In general, Asian students in this sample reported a high rating (72%) of group cohesion relative to the mean of the measure, which may support the view that a strong cohesive peer group is a relevant need that could be successfully obtained for many Asian students. Group cohesion, as measured in this study, was a perceived sense of belongingness and an emotional bonding to one's peer group (Bollen & Hoyle, 1990). The high level of this type of group cohesion may reflect the influence of Asian collectivistic culture that defines the individual in relation to others within social contexts. Individual's consideration of others, sometimes even more important than the individual's needs, may be indicative of higher group cohesiveness. High group cohesive rating is also consistent with research that shows high cohesion levels when group members share a common goal (Senecal et al., 2008). Attendance to education is a common value for many Asian students, thus identifying with a close group of friends

that are in college indicates the individual has a common goal with the cohesive group to successfully achieve towards higher education by attending university. Higher academic adjustment scores relative to the three other college adjustment subscales was also observed and expected given the importance of education for Asians and corresponded to the large percent of student reporting GPAs greater than 3.0 (95%) and at or above 3.5 (60%).

Given the low levels of college adjustment that was largely due to poor personal emotional adjustment and college attachment reported in this study, clearly more research is needed to address this issue. Other factors such as discrimination or minority status that were not assessed in this study might be more of the cause of the problem as suggested by previous literature (Dusselier et al., 2005). Interestingly, higher mean levels of academic adjustment and social adjustment were reported relative to personal emotional adjustment and attachment. The lower mean scores for personal-emotional adjustment and attachment to the attending institution found in this study is also supported in the literature with the research showing that Asian students often experience emotional distress and adjustment difficulty in university settings (Atkinson et al., 1995). More specifically, personal adjustment assesses the degree that the student is experiencing distress, which is consistent with previous research that suggested Asian students tend to have more mental health symptoms when compared with their White peers upon close examination (Cress & Ikeda, 2003; Lau et al., 2009). In addition, research has shown Asian students tend to underutilize mental health services (Atkinson et al., 1995; Matsuoka et al., 1997; Sue et al., 1991; Tata & Leong, 1994), which may mean that the

actual mental health need might be even higher than observed.

These findings also highlight important misconceptions of the "model minority," where the society believes Asian students tend to perform better than their White counterparts in school (Abe & Zane, 1990; Kuo & Roysircar-Sadowsky, 1999; Okamura & Tsutsumoto, 1998). While Asian students perform well academically, it often overshadows their mental health needs. Administration should be more mindful about using GPA as the only indicator to assess student well being. As we have found in this study, most students who are struggling in fact had above average GPA. The present study also lacked data for students that did not do well in college adjustment, and resorted to dropping out as a result. Future study should focus on examining whether group cohesion would be a potential factor in predicting student drop out and retention.

Limitations

This study should be considered with the following limitations. First, there are limitations to the generalization of the findings to other Asian college student populations due to the convenience sampling procedure used to recruit participants online. Responders from an internet may have participated due to specific stresses or issues encountered on his or her college campus. For example, recruitment procedures may have led to a group who was struggling adjusting to college setting or who have a higher ethnic identity due to the study topic. Also, 6.59% did not complete the survey possibly because it too tedious or lengthy to complete or too hard for an individual to see the immediate benefit. Generalization of the findings to larger population is also influenced by the small

sample size with mixed Asian ethnic cultures and even smaller sample size of older students, thus, making it difficult to draw conclusion about certain subgroups.

Second, there are few well validated measures of cohesion. In the current study, cohesion measure was based on one's own emotional affective bonding to the peer group rather than an individuals' rating of the entire group's perception of cohesiveness. Thus, future studies using other types of cohesive measure based on other theories may find different results.

Finally, because the study design only targeted correlational relationships, no inferences of causality can be made about the findings. Moreover, all data was based on self report, thus risking the influence of individual's perceptions and biases on data accuracy.

Summary and Future Directions

Even though Asian student populations are increasing in American colleges, the effect of Asian cultural backgrounds and values on college adjustment is the least understood in the literature (Takaki, 1996). Living with both Asian culture and American culture within a new social environment often causes emotional conflicts when adjusting to college. Coping strategies such as social supports may help students handle these emotional conflicts. The goal of the present study was to examine whether individuals that have established a cohesive peer group would be a protective factor for college adjustment for students reporting high levels of traditional Asian values. However, this relationship was not found, although the college adjustment data suggests that Asian

students are struggling.

Despite the few significant findings, there are several implications for future research with Asian students. Just a few values were examined in this study, and the selected few were values that were most similar across Asian ethnic groups; however, the lack of results may be due to the complexity and diversity of values within the Asian population. Current data, however, suggested that most Asian students were able to get support from cohesive peer group in college but many individuals were still struggling. Caution should be taken in future study, to not overlook the Asian students that are underrepresented due to the misconceptions that all Asians are doing well. While literature suggests that Asian heritage might be important in individual's well being (Diener, Oishi, & Lucas, 2003; Oishi, Diener, Lucas, & Suh, 1999), the present research suggests that there might be other factors that are more important or prevalent in predicting college adjustment specifically. For example, future studies should also examine the effect of peer groups and additional coping strategies in conjunction with evaluations of college context, climate and racial issues encountered by students. Research in this area can be applied to prevention programs to teach families on how to recognize and handle intergenerational differences. Because many Asian students may be struggling with college attachment and personal emotions, research in this area can be applied to develop or enhance culturally sensitive social services and supports on college campuses to Asian student populations.

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APPENDICES

Appendix A

Recruitment Letter

Recruitment letter

Why am I getting this email?

Hello! My name is Xin Zhao and I am a Ph.D. student at Utah State University. I am working with Dr. Donna Gilbertson, psychology professor at USU, and we would like to **invite you to participate in a research study** designed to explore the relationship between cultural identity, Asian values, perceived cohesion and college adjustment of Asian students. We are both sensitive to and interested in promoting appropriate research for Asian population. I was born in China, and moved to United State when I was twelve years old, I am interested in factors that contribute to success of Asian college students. The goal of our research is to develop a better understanding of whether having a cohesive group of friends will be important for Asian students to succeed in college. We invite you to participate in our study if you are an adult of Asian heritage.

What would I have to do?

Your participation would involve completing an anonymous online survey about your ethnic identity, cultural values embracement, attitudes towards close friendships and your adjustment to college. This may take you **between 20 and 30 minutes**. All survey responses will be anonymous and completely confidential.

What is in it for me?

You may choose to submit your email address to be entered into a **drawing for one of five $10 and one $50 gift certificates** given away in December 2011. Email addresses for the drawing will be held in a separate database, so survey responses will not be traceable to specific email addresses. In addition, you may request a summary of the study results by email.

If you have any questions about the research, please do not hesitate to contact me, Xin Zhao at shinjaw@gmail.com. You may also contact my faculty advisor, Donna Gilbertson, Ph.D. at (435) 797-2034 or donna.gilbertson@usu.edu.

Thanks!

To participate, please follow the link below:

Appendix B

Letter of Information

UtahState University
Department of Psychology
2810 Old Main Hill
Logan UT 84322-2810
Telephone: (435) 797-2034

LETTER OF INFORMATION

Asian College Students Perceived Peer Cohesion, Cultural Identity and College Adjustment

Introduction/Purpose: Dr. Donna Gilbertson and Xin Zhao in the Department of Psychology at Utah State University are conducting a study on the relationship between cultural identity, Asian values, perceived cohesion and college adjustment of Asian students. You have been asked to participate in this study because you are a college student with Asian heritage who is currently attending a university in the United States. We expect approximately 150 participants.

Procedure: If you agree to participate in this study, you will be asked to complete an online survey. You will be asked questions about your ethnic identity towards White and Asian culture, Asian values identification, your attitude towards close friendships, and your level of adjustment in college. The questionnaire may take about 20-30 minutes.

Risks: There are minimal anticipated risks to this study. If you feel uncomfortable answering a question you may skip the question(s) and proceed with the questionnaire.

Benefits: If the findings of this study are meaningful, the results provide important information that may help service higher education system to provide more support that are appropriate and necessary to Asian college students when adjusting to stress experienced at college.

Explanation & offer to answer questions: If you have any questions, complaints, or research-related problems please contact Xin Zhao by email: shinjaw@gmail.com. You can also contact Dr. Donna Gilbertson at donna.gilbertson@usu.edu, or by phone at (435) 797-2034.

Payment/Compensation: Upon completion of the survey, you may choose to follow another link to submit your email address for a chance to win one of five $10 gift certificates and one $50 gift certificate to Amazon.com. In no way will your personal information be connected with your survey responses.

Voluntary nature of participation and right to withdraw without consequence: Participation in research is completely voluntary. You may refuse to participate or withdraw at any time without consequence.

Confidentiality: All survey responses are confidential, and it will not be possible to identify your computer, as the survey uses a Secure Survey Environment. Email addresses entered for the chance to receive a gift certificate will be held in a separate database, and will not be linked to survey responses in any way. Research records will be kept confidential, consistent with federal and state regulations. Only the investigators will have access to the data, which will be downloaded from the survey provider's

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LETTER OF INFORMATION

Asian College Students Perceived Peer Cohesion, Cultural Identity and College Adjustment

secure database, and stored on a password-protected computer. All email addresses will be disposed of after the results of the study have been distributed by email.

IRB Approval Statement: The Institutional Review Board (IRB) for the protection of human participants at USU has reviewed and approved this research study. If you have any pertinent questions or concerns about your rights or think the research may have harmed you, you may contact the IRB Administrator at (435) 797-0567 or email irb@usu.edu. If you have a concern or complaint about the research and you would like to contact someone other than the research team, you may contact the IRB Administrator to obtain information or to offer input.

Copy of Letter of Information: Please print a copy of this Letter of Information for your files.

Investigator Statement "Through this letter of information, the research study has been explained to the individual, by me or my research staff, including the nature and purpose, the possible risks and benefits associated with taking part in this research study. Any questions that have been raised have been answered."

Signature of Researcher(s)

Donna Gilbertson, PhD
Principal Investigator
(435)-797-2034
donna.gilbertson@usu.edu

Xin Zhao
Student Researcher
(540) 250-5697
shinjaw@gmail.com

Participant Consent: If you have read and understand the above statements, please click on the "CONTINUE" button below to begin the survey. This indicates your consent to participate in this study.

Thank you very much for your participation! Your assistance is truly appreciated.

Appendix C

Screening Questions

Screening Questions:

For the following measure, please think of your closest friends who you have frequent contact with currently.

How many close friends do you have?

0

1

2 or more

What ethnicity are your close friends: (Please circle all that apply)

White

Asian/Asian American

Other

What gender are your close friends: (Please circle all that apply)

White

Asian/Asian American

Other

Appendix D

Perceived Cohesion Scale for Small Groups

Perceived Cohesion Scale for Small Groups

For the following measure, imagine your closest friends who you have frequent contact with currently. Please respond to the following statements on the basis of how you feel about the group of friends you have. Please circle the number which best describes your agreement or disagreement with each statement about this group. Also, please answer ALL items. 1 = Strongly disagree, 2 = quite disagree, 3 = slightly disagree, 4 = neither, 5 = slightly agree, 6 = quite agree, 7 = strongly agree.

I feel that I belong to this group.	1 2 3 4 5 6 7
I am happy to be part of this group.	1 2 3 4 5 6 7
I see myself as part of this group.	1 2 3 4 5 6 7
I feel that I am a member of this group.	1 2 3 4 5 6 7
This group is one of the best anywhere.	1 2 3 4 5 6 7
I am content to be part of this group.	1 2 3 4 5 6 7

Appendix E

Asian American Values Scale—Multidimensional

Asian American Values Scale – Multidimensional
(AAVS-M; Kim, Li, & Ng, 2005)

INSTRUCTIONS: Use the scale below to indicate the extent to which you agree with the value expressed in each statement.

1 = Strongly Disagree
2 = Moderately Disagree
3 = Mildly Disagree
4 = Neither Agree or Disagree
5 = Mildly Agree
6 = Moderately Agree
7 = Strongly Agree

Collectivism

_____2. The welfare of the group should be put before that of the individual.
_____6. One's personal needs should be second to the needs of the group.
_____10. The needs of the community should supercede those of the individual.
_____14. The group should be less important than the individual.
_____23. One's efforts should be directed toward maintaining the well-being of the group first and the individual second.
_____34. One need not sacrifice oneself for the benefit of the group.
_____37. One need not always consider the needs of the group first.

Conformity to norms

_____1. One should recognize and adhere to the social expectations, norms and practices.
_____11. One should adhere to the values, beliefs and behaviors that one's society considers normal and acceptable.
_____25. One need not blend in with society.
_____27. Conforming to norms provides order in the community.
_____28. Conforming to norms provides one with identity.
_____39. One should not do something that is outside of the norm.
_____42. Conforming to norms is the safest path to travel.

Emotional Self-Control

_____3. It is better to show emotions than to suffer quietly.
_____7. One should not express strong emotions.
_____15. One's emotional needs are less important than fulfilling one's responsibilities.
_____20. One should not act based on emotions.
_____24. It is better to hold one's emotions inside than to burden others by expressing them.
_____29. It is more important to behave appropriately than to act on what one is feeling.
_____32. One should be expressive with one's feelings.
_____35. Openly expressing one's emotions is a sign of strength.

Family Recognition through Achievement

_____4. One should go as far as one can academically and professionally on behalf of one's family.
_____8. One's academic and occupational reputation reflects the family's reputation.
_____12. Succeeding occupationally is an important way of making one's family proud.
_____13. Academic achievement should be highly valued among family members.
_____16. Receiving awards for excellence need not reflect well on one's family.
_____17. One should achieve academically since it reflects on one's family.
_____18. One's educational success is a sign of personal and familial character.
_____21. One should work hard so that one won't be a disappointment to one's family.
_____22. Making achievements is an important way to show one's appreciation for one's family.
_____31. Failing academically brings shame to one's family.
_____33. Children's achievements need not bring honor to their parents.
_____36. One's achievement and status reflect on the whole family.
_____38. It is one's duty to bring praise through achievement to one's family.
_____40. Getting into a good school reflects well on one's family.

Humility

_____5. One should be able to boast about one's achievement.
_____9. One should be able to draw attention to one's accomplishments.
_____19. One should not sing one's own praises.
_____26. Being boastful should not be a sign of one's weakness and insecurity.
_____30. One should not openly talk about one's accomplishments.
_____41. One should be able to brag about one's achievements.

Appendix F

Demographics Questionnaire

Demographics Questionnaire

What is your gender?

a. Female

b. Male

What is your age? _____ (in years)

How many years have you been attending the college you are currently attending? ____

What level of education do you have?

Graduate School
4 Year College
Some College
Community College
Technical/Vocational school
High School
Less than high school
Military

What education level did your parents receive?

Father: (Please circle one)
Graduate School
4 Year College
Some College
Community College
Technical/Vocational school
High School
Less than high school
Military
Other (Please specify):

Mother: (Please circle one)

Graduate School
4 Year College
Some College

Community College
Technical/Vocational school
High School
Less than high school
Military
Other (Please specify):

What is the ratio of ethnic minorities at your school?

10%
25%
50%
75%

What is your current grade point average?

4.0 – 3.5
3.5- 3.0
2.9-2.5
2.4-2.0
below 2.0

What is the country of origin that roots your Asian heritage? _____

What is your Generation level?

a) First (you were born in a different country and immigrated to the United States)
b) Second (you were born in the United States; parents immigrated from another country)
c) Third (you and your parents were born in the United States; grandparents immigrated from a different country)
d) Fourth or more (you, your parents, and your grandparents were all born in the United States)

How many years have you lived in the United States if you are first generation: __

Would you be the first in your family to graduate from college? Yes or no

Do you currently live at home with parent/s? Yes or No

Which of the following resources have you utilized in the past in face of life difficulties? Check all that apply:

a. ___ family
b. ___ friends
c. ___ religious outlets (e.g., church, temple)
d. ___ self
e. ___ professional psychological help (e.g., counseling)
f. ___ cultural values taught
g. ___ other (please specify:_____)