

**Understanding Family-Based Cultural Influences on Alcohol Use among
Chinese American Adolescents**

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THESIS

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This dissertation is dedicated to my father, Wei Chih Wang, and mother, Mei Yun Wang, for the love that they poured into me; their perseverance and sacrifice as immigrants in a new country gave me unlimited opportunity to pursue my path and taught me to prevail through the most challenging undertaking of my life.

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LIST OF ABBREVIATIONS

ACE	Adverse Childhood Experiences
AVS	Asian Values Scale
CMPS	Contextual Model of Parenting Style
GGC	Guiding Good Choices
ICD	Intergenerational Cultural Dissonance
MHVIC	Measurement of Horizontal and Vertical Individualism and Collectivism
SDM	Social Development Model
TTI	Theory of Triadic Influence

SUMMARY

The focus of this research is to advance an understanding of a culturally-based factor, intergenerational cultural dissonance (ICD), within Chinese American families and its relationship to increasing the vulnerability of adolescents to engage in alcohol use. Intergenerational cultural dissonance or conflict occurs between parents and children over cultural values due to the accelerated rates of assimilation by adolescents as compared to their parents. Moreover, it addresses the role of parent-child bonding as a protective factor, and explores the interactions among parenting styles with ICD and parent-child bonding on risk for adolescent alcohol use.

A macro-theoretical conceptual framework, developed from a synthesis of the Theory of Triadic Influence (TTI), the Contextual Model of Parenting Style (CMPS), and the Social Development Model (SDM), hypothesizes the relationships within Asian American families between family-based risk and protective factors, ICD and parent-child bonding respectively, and their relationships with the initiation of use and abuse of alcohol and other drugs by adolescents. The overarching theory in this framework is the TTI, a macro-level theory developed by researchers Flay and Petraitis (1994). It incorporates both distal and proximal factors to describe empirically, the pathway of culture from the broader socio-cultural macroenvironment to influence risk and protective factors within Chinese American families. The SDM (Catalano & Hawkins, 1996) defines those parenting practices that promote bonding by hypothesizing the processes through which children are socialized to attach to their parents. The CMPS (Darling & Steinberg, 1993) provides an understanding of how parenting style moderates the relationship between parent-child bonding and risk for adolescent alcohol use.

SUMMARY (continued)

To understand family-based cultural influences on alcohol use among Chinese American adolescents, as well as the role of parenting style in moderating these relationships, this study asks the following research questions: (1a) How is parent-child bonding associated with risk for alcohol use among Chinese American adolescents?; (1b) Does parenting style moderate the relationship between parent-child bonding and risk for alcohol use among Chinese American adolescents?; (2a) How is ICD associated with risk for alcohol use among Chinese American adolescents?; (2b) Does parenting style moderate the relationship between ICD and risk for alcohol use among Chinese American adolescents?; (3a) How is the acculturation gap associated with ICD within Chinese American families with adolescents?; (3b) Does parenting style moderate the relationship between acculturation gap and ICD among Chinese American families?; (4a) How are parenting practices associated with ICD within Chinese American families with adolescents?; and (4b) Does parenting style moderate the relationship between parenting practices and ICD?

The four primary hypotheses are: (1) Parent-child bonding will decrease risk for alcohol use among Chinese American adolescents; (2) ICD will increase risk for alcohol use among Chinese American adolescents (3) the acculturation gap will increase risk for ICD within Chinese American families with adolescents; and (4) parenting practices that strengthen parent-child bonding will decrease ICD within Chinese American families with adolescents.

SUMMARY (continued)

Data were collected from parent-child dyads with measurement from one child and one parent within a family. All students in the 6th through 8th grades and their parents from three elementary schools in the Chicago's Chinatown neighborhood and Armour Square and Bridgeport community areas were recruited to participate in this study. These elementary schools were selected due to the racial/ethnic compositions of their student populations with large majorities that were Chinese American. Nonprobability sampling was chosen for this research study due to the hard-to-reach and unique population targeted. From a total of 203 Chinese American parent-child dyads that were collected, 187 parent-child dyads were included in the final analyses.

Students were assessed through self-administered questionnaires to primarily measure the relationships among ICD with self-reported alcohol use initiation, behaviors, and intentions. A major aim of the parent survey was to understand the cultural context of parenting practices to promote parent-child bonding or ICD. The student and parent questionnaires were developed by constructing questions on adolescent substance use, and selecting scales that had previously demonstrated strong reliability and validity within similar populations.

Student questionnaires were administered in the classrooms at participating schools. Parents of Chinese American students completed self-administered questionnaires sent home. Significant efforts were made to minimize response bias through different approaches including providing incentives to both students and parents, training research assistants on collecting survey data, pretesting the questionnaires, hiring professional translators, and sending reminders to parents. To obtain the highest response rate possible among parents, the *Tailored Design Method* for conducting mail surveys (Dillman, 2007) was adapted to be used in this study to include five points of contact through mailings, reminder postcards, and materials sent home.

SUMMARY (continued)

Prior to the data collection for this research study, a pretest of the instruments was conducted in the community during the summer of 2011. This provided an opportunity to allow for changes to the surveys and administrative procedures to minimize bias, and obtain reliable and valid data. Data collection began at participating elementary schools at the beginning of the fall school semester of 2011.

Results from this research study revealed that parent-child bonding within Chinese American families served as a protective factor against alcohol use among adolescents. Child's perceived level of conflict with his/her parent, on the other hand, was positively associated with risk for alcohol use. In examining bonding and conflict as mean values within parent-child dyads, findings reveal that the authoritarian and neglectful parenting styles may be harmful by increasing the likelihood of children to engage in underage drinking. The neglectful parenting style increased risk for use by twice or more compared to the authoritarian parenting style. In contrast, guan, a parenting style specific to the Chinese culture, which means to rule, direct, or regulate while also connoting a caring and loving attitude towards children, was strongly protective.

Intergenerational cultural dissonance was examined at greater depth in this research study with the purpose to determine causes for conflict such as from acculturation gaps between parent and child in behaviors and values, and from the lack of parenting practices that encourage bonding. Acculturation gaps were positively related to intergenerational conflict within Chinese American families. Results suggest that ICD occurs mainly from the differences between parent and child in Asian behaviors and values; the acculturation gap (or acculturation to American behaviors) and the individualistic orientation gap, in contrast, were not significant in causing conflict. This study also found that the neglectful and authoritarian parenting styles achieved significance interacting with the gaps to predict greater conflict among all the dyads.

SUMMARY (continued)

The authoritarian parenting style, although not as strong as the neglectful parenting style to increasing conflict, was still predictive of heightened ICD. Gaps under guan consistently predicted less conflict compared to gaps under the authoritative parenting style.

Positive parenting practices were inversely related to ICD within Chinese American families, revealing that the greater the degree of parenting practices engaged by parents as perceived by the child was predictive of less conflict among all dyads. Lastly, the neglectful parenting style and guan interacted with parenting practices to predict less conflict than practices under an authoritative parenting style.

I. INTRODUCTION

A. Problem Statement

According to the U.S. Surgeon General (2007), alcohol is the most widely abused substance by adolescents in the United States. Hawkins, Catalano and Miller (1992) define adolescent substance abuse as the frequent use of alcohol and other drugs, or use that is related to trouble and dysfunction between the ages of 12 to 17 years old. The U.S. Centers for Disease Control and Prevention (CDC) recently termed excessive alcohol consumption, which includes heavy drinking, binge drinking, or both, the third leading preventable cause of death in the nation, responsible for 75,766 deaths and 2.3 million years of potential life lost in 2001. Of these alcohol-attributable deaths, six percent involved individuals under 21 years old, the legal drinking age in all 50 states (CDC, 2004). Notwithstanding major advances in knowledge, increasingly sophisticated theories, and multi-component prevention programs, underage drinking remains a significant public health problem (Office of the Surgeon General, 2007).

In 2007, approximately 75.0% of students across the country consumed a minimum of one alcoholic drink on at least one day during their lifetime before graduating high school (CDC, 2008). Although studies have shown overall decreases in the prevalence of alcohol use over time since the 1970s among adolescents (Faden & Fay, 2004), it still remains high. Results from a national survey, Monitoring the Future, revealed that in 2008, 16% of 8th grade students, 29% of 10th grade students, and 43% of students in the 12th grade reported having used alcohol in the past month. Furthermore, the prevalence of heavy drinking, defined as five or more drinks in a row, that occurred at least once in the two weeks prior to the survey, was 8%, 16%, and 25% of students in the 8th, 10th, and 12th grades respectively (Johnston et al., 2009). While adults consume alcohol more often than adolescents on average, underage drinkers generally drink more at a time. Combined data from a national survey administered in 2005 and 2006

revealed that underage drinkers between 12 and 20 years of age reported having typically consumed 4.9 alcoholic beverages on the days they drank in the past month, compared to 2.8 drinks consumed by adults aged 21 or older (Substance Abuse and Mental Health Services Administration [SAMHSA], 2008).

Motor vehicle accidents, the leading cause of death among adolescents, are often preceded by alcohol use (CDC, 2008). In 2009, roughly 3,000 adolescents ages 15 to 19 died of injuries caused by motor vehicle crashes, and more than 350,000 occupants of motor vehicles in this age range sustained nonfatal injuries that required emergency treatment (CDC, 2010). Early onset drinking also increases the risk for unintentional physical harm, unprotected sex, physical violence, educational failure, and possible interference with both physiological and brain growth and development (Hingson et al., 2001; Hingson et al., 2002; Hingson & Winter, 2003; Hingson & Zha, 2009; Komro et al., 2009). According to data from the National Survey on Drug Use and Health in 2003, 56.1% of youth aged 12 to 20 surveyed had already initiated alcohol use. Slight gender differences were demonstrated with 55.3% of boys and 57% of girls in this same age group reporting initiation at average ages of 13.86 and 14.24 respectively. Other studies have shown that initiation of alcohol begins even earlier, before the age of 13 (Kosterman et al., 2000). Data from recent surveys indicate that approximately 10% of nine to ten year olds have already started drinking (Donovan et al., 2004).

According to the U.S. Census Bureau, the population of Asians grew 43% between 2000 and 2010, greater than any other major racial/ethnic group. Generally, Asian American adolescents engage in lower drug use and abuse compared with other racial/ethnic populations (Wu et al., 2011; Lowry et al., 2011; Wallace et al., 2002; Shih et al., 2010). However, the use of Asian as a broad category for over sixty distinct groups may conceal wide variations in the degree of substance use and abuse by ethnicity, and encourage the misleading label of Asian Americans as a “model minority” (Harachi et al., 2001; Price et al., 2002). In fact, the few studies that have been conducted suggest that for certain Asian subgroups, use of alcohol, cigarettes, and some illicit drugs may be comparable to or even surpass rates for their racial/ethnic

counterparts (Harachi et al., 2001). For example, Price and colleagues (2002) analyzed data from four large-scale national surveys and found that among Japanese Americans adolescents, rates for drinking and smoking cigarettes in the past year (51.5% and 36% respectively) were close to those of White adolescents (55.5% and 39.1% respectively), and even exceeded them in a few classes of illegal substances. Moreover, in a study by Wong and colleagues (2004), results revealed from analyses of two statewide surveys that while use among the Asian ethnic groups studied were generally lower than the comparison group of White adolescents, usage rates were not modest by any means. In California, 37% of Chinese American adolescents and 46.8% of Japanese American adolescents reported ever drinking. In Hawaii, 63.8% of Japanese American adolescents reported having used alcohol in their lifetime, compared to 76% among Whites (Wong et al., 2004).

The high price of adolescent substance abuse to the broader society includes health care costs, mental health services, drug and alcohol treatment, and violence and juvenile crime. In 2001, alcohol sales to youth led to an estimated 3,170 deaths and nearly 2.6 million injuries with a total monetary value of \$61.9 billion in medical spending, loss of property and work, and costs to quality-of-life (Miller et al., 2006). Although the majority of youth who initiate using alcohol do not become problem drinkers, early initiation of alcohol use during adolescence powerfully predicts abuse of alcohol and illegal substances later in life (Hingson et al., 2006; Hawkins et al., 1997; Buchmann et al., 2009; DeWit et al., 2000). For those who engage in substance abuse into adulthood, they often experience or perpetrate violent crimes, child abuse and neglect, decreased quality of life, destruction of families, sexual assault, loss of work productivity, unemployment, and significant morbidity and mortality (Caetano et al., 2001; Abbey et al., 2001; Greenfield & Henneberg, 2001; Widom & Hiller-Sturmhofel, 2001; Rehm et al., 2003; Jones & Richmond, 2006; McCoy et al., 2007; Webster et al., 2007).

B. Study Purpose

The focus of this research is to advance an understanding of a culturally-based factor, ICD, within Chinese American families and its relationship to increasing the vulnerability of adolescents to engage in alcohol use. Intergenerational cultural dissonance or conflict occurs between parents and children over cultural values due to the accelerated rates of assimilation by adolescents as compared to their parents. Moreover, it addresses the role of parent-child bonding as a protective factor, and explores the interactions among parenting styles with ICD and parent-child bonding on risk for adolescent alcohol use.

A macro-theoretical conceptual framework, developed from a synthesis of the TTI, the CMPS, and the SDM, hypothesizes the relationships within Asian American families between family-based risk and protective factors, ICD and parent-child bonding respectively, and their relationships with the initiation of use and abuse of alcohol and other drugs by adolescents. The overarching theory in this framework is the TTI, a macro-level theory developed by researchers Flay and Petraitis (1994). It incorporates both distal and proximal factors to describe empirically, the pathway of culture from the broader socio-cultural macroenvironment to influence risk and protective factors within Chinese American families. The SDM (Catalano & Hawkins, 1996) defines those parenting practices that promote bonding by hypothesizing the processes through which children are socialized to attach to their parents. The CMPS (Darling & Steinberg, 1993) provides an understanding of how parenting style moderates the relationship between parent-child bonding and risk for adolescent alcohol use. Ultimately, this framework serves to identify potentially relevant deep structural level cultural influences on family-based risk and protective factors; and to hypothesize the relationships of these factors to the constructs of the theory, the SDM, to determine the pathway of culture on parent-child bonding to prevent adolescent alcohol use and abuse.

A long term goal of this study is to translate the research findings to practice by culturally adapting a family-based prevention program theoretically-based in SDM at the deep structural level. Cultural adaptations aim to create a culturally equivalent version of a model program by adapting it to both the

surface (social and behavioral characteristics), and deep structural levels (worldview, norms, beliefs and values) of a cultural group to promote the acceptance and comprehension of its messages.

C. Research Questions

To understand family-based cultural influences on alcohol use among Chinese American adolescents, as well as the role of parenting style in moderating these relationships, this study examines the following research questions:

- 1a. How is parent-child bonding associated with risk for alcohol use among Chinese American adolescents?
- 1b. Does parenting style moderate the relationship between parent-child bonding and risk for alcohol use among Chinese American adolescents?
- 2a. How is ICD associated with risk for alcohol use among Chinese American adolescents?
- 2b. Does parenting style moderate the relationship between ICD and risk for alcohol use among Chinese American adolescents?
- 3a. How is the acculturation gap associated with ICD within Chinese American families with adolescents?
- 3b. Does parenting style moderate the relationship between acculturation gap and ICD among Chinese American families?
- 4a. How are parenting practices associated with ICD within Chinese American families with adolescents?
- 4b. Does parenting style moderate the relationship between parenting practices and ICD?

D. Hypotheses

The four main hypotheses are:

1. Positive parent-child bonding will be inversely related to risk for alcohol use among Chinese American adolescents.
2. ICD will be positively related to risk for alcohol use among Chinese American adolescents.
3. Acculturation gaps will be positively related to ICD within Chinese American families.
4. Positive parenting practices will be inversely related to ICD within Chinese American families.

E. Significance

This research study will contribute to the existing body of knowledge on the prevalence of alcohol use among Chinese American adolescents, and in particular, among a unique population of adolescents from an ethnic enclave in a large urban setting. This study further investigates the precursors to adolescent alcohol use and other problem behaviors by exploring how bonding between parent and child serves as a protective factor, as well as how ICD, on the other hand, acts as a risk factor to promote use. Parent-child bonding and ICD are seen as separate constructs in this research study. It does not assume that the lack of parent-child bonding results in greater conflict within families or that the presence of conflict indicates weak bonding. Rather, both risk and protective factors are accounted for in this study to determine strategies for prevention. It assesses the strength of each factor, risk or protective, in its association with adolescent alcohol use, which can therefore inform the future development and/or cultural adaptation of family-based prevention programs to target the more meaningful factor or both.

Intergenerational cultural dissonance, conflict between parents and children that stem from differences in assimilation rates, in particular, will be examined in greater depth to understand how it results

from acculturation gaps in behaviors and/or degree of adherence to cultural values, or from the differences in behaviors and values between parents and children within families. There exists a lack of research that examines the processes that result in this type of conflict within Asian American families. This study therefore provides a more comprehensive understanding of the acculturation process. It measures behavioral acculturation along with concurrent measurements of values acculturation among the target population, parents and children separately, revealing the differing rates of acculturation between behaviors and values to mainstream U.S. society and their respective impact on ICD. Often, research on acculturation measures only behaviors. The distinction between behavioral and value measures of acculturation is important because evidence points to acculturation involving two separate components, values and behavior, with each changing at differing rates during the acculturation process.

Information will be collected from both parent and child within families on levels of ICD. Measuring the sampling unit, parent-child dyad, within families will provide a better measure of the true or actual value of the construct. Families provide a significant context for the development of the adolescent, and the relationships between parents and their children are interdependent. By measuring parent-child dyads within families, social interactions can be captured and seen as property of the dyad. This allows for a greater understanding of family dynamics and processes, and their relationships with outcomes such as level of ICD within the parent-child dyad and risk for adolescent alcohol use. Moreover, the mean value of conflict within families will be compared to the child's perception of conflict, the mother's perception of conflict, and the father's perception of conflict to determine the most significant relationship with risk for alcohol use.

This methodological approach also prevents considering only well-functioning families whose parents most often volunteer to participate in research because data will also be collected from children. Furthermore, gathering data from the child to report separately on his or her parents, both mother and

father, will help compensate for the limitations of only recruiting one parent in a family to participate in this research study.

Information will be collected from both parents and their children for this research study to also measure the acculturation gaps within families. With regard to determining an acculturation gap between parent and child, a limitation of measuring only the perceptions of the child or the child's parents to assess the acculturation level of the other party is relying on the reports of only one or the other. This may result in an overestimation or underestimation of the child's or parent's perceptions of the other's level of acculturation. Additionally, self-reported perceptions of an acculturation gap may be confounded with perceptions of the outcome, or in this case, ICD. For example, children may attribute conflict with their parents to ICD rather than to the normative conflict over autonomy that occurs during adolescence (Birman, 2006). Rather than relying on adolescents' or parents' reports, it may be more accurate to obtain acculturation scores from both parents and children to assess the parent-child dyad as a whole. Results from both behavioral and values acculturation from both parties will provide the behavioral acculturation gap and values acculturation gap separately between parent and child, and their associations with ICD.

Parenting practices that have been determined in past research studies to cause parent-child bonding will be applied to examine if this relationship remains true within Asian American families, and if the lack of these practices will promote ICD. Moreover, few studies have examined parenting styles in combination with parenting practices. This study explores parenting practices that strengthen parent-child bonding combined with parenting styles as an attitude, or the context within which these practices are performed. Parenting practices alone are insufficient in grasping the relationship with ICD. Parenting styles will similarly be examined as moderators for the following relationships between: (1) parent-child bonding and risk for alcohol use; (2) ICD and risk for alcohol use; and (3) acculturation gaps and ICD. This study will therefore increase knowledge and understanding on the role parenting styles play within families of this racial/ethnic minority group to protect or serve as a risk factor for alcohol use among adolescents.

Lastly, the debate on the effectiveness and merit for the amount of time, effort and resources to culturally adapt programs continues in large part due to the lack of rigor in commonly-used methods to match programmatic content and delivery to the culture of a population, particularly at the deep structural level. The ultimate significance of this research is the potential advancement in translational research by laying the groundwork for considering a macro-level theory, the TTI, as a roadmap for culturally adapting prevention programs. The term, “roadmap,” was recently adopted by the National Institutes of Health (NIH) to designate “new ways of doing research, fill fundamental knowledge gaps, and to encourage risk taking to solve complex problems.” Rather than select culturally-based factors that have shown significance among Asian American populations in past research studies, this framework facilitates the identification of cultural factors that need to be examined. To date, there are no known studies that use a theoretical foundation to understand the population at its deep structural level and guide the cultural adaptations of public health interventions.

II. LITERATURE REVIEW

A. Adolescent Development and Substance Use

Adolescence is a major developmental period of transition in the life course signified by rapid growth and change. Transformations during this time involve the parent-child relationship, increasing importance of peer relationships, pubertal development, and an evolving a sense of self (Steinberg & Morris, 2001).

Adolescent research has focused much of its attention on the family, especially on the escalating conflict between parents and their children often resulting from the adolescent's demands for greater autonomy. Closeness and the amount of time adolescents spend with parents simultaneously decline as more time is spent with friends (Steinberg & Morris, 2001). Peers grow in significance during this phase of transition, and exert both positive and negative influences. They can influence academic achievement, as well as problem behaviors though susceptibility to peer pressure is not uniform (Steinberg & Morris, 2001). Another major development is pubertal maturation. Early onset of puberty has been shown to correlate with a greater risk for substance use and negative behaviors (Costello et al., 2007; Lanza & Collins, 2002). Adolescence is also a period of time for psychological exploration of the self, and the development of a self-concept in terms of personal beliefs, principles and values (Steinberg & Morris, 2001).

Additionally, it is when experimentation with alcohol and illegal substances often begins. There exist age-related patterns for alcohol expectancies and use, dependency, and problems. Expectancies such as the perceived effects of alcohol shift from predominantly negative to positive during later middle childhood and early adolescence. Similarly, intent to use alcohol increases with increasing access to it such as at parties. Further fueling the problem of underage drinking is the perception of its prominence as a rite of passage in the United States by parents, and also by many adolescents themselves so that alcohol use is frequently initiated during this developmental period (Masten et al., 2008). In a recent study

conducted by Faden (2006), multiple years from three national surveys—Monitoring the Future, National Survey on Drug Use and Health, and the Youth Risk Behavior Surveillance System—were analyzed to understand trends in alcohol initiation, one of which revealed that the first time adolescents consumed alcohol occurred most often in the 7th and 8th grades. However, results also indicate that the age of initiation has generally increased over the past 10 to 12 years (Faden, 2006).

Early initiation of alcohol is associated with heavier alcohol use throughout adolescence and early adulthood with the prevalence rate of alcohol dependence highest among individuals between 21 and 24 years old (Masten et al., 2008). During adolescence, data on the effects of alcohol exposure indicates that it can alter development, and potentially damage brain function. Drinking may also negatively affect the development of social and academic competencies necessary to succeed in adulthood such as peer relationships and school performance (Masten et al., 2008). Given the vulnerability to alcohol initiation and the high prevalence rate of underage drinking, preventative efforts for substance abuse commonly target adolescents.

B. Family Practices to Promote Parent-Child Bonding

1. Risk and protective factors

Over the past 30 years, researchers have identified factors that promote or reduce adolescent substance abuse in their social and environmental contexts such as peer groups, families, schools, and communities (Catalano et al., 2002). Precursors to early substance use and abuse that consistently predict and increase the probability for these behaviors are called risk factors (Hawkins et al., 1992; Masten et al., 2008). Protective factors, on the other hand, moderate the effects of exposure to risk (Hawkins et al., 1992). They decrease the likelihood of problem behaviors among those at risk through positive effects that directly counter the negative influences of risk factors, or by providing a buffer against the negative effects themselves (Catalano et al., 2002). Risk and protective factors tend to cluster and

reinforce one another, and can be classified as interpersonal factors that include individual, family, peer groups, school, and neighborhood environments; and broad contextual factors at the societal and cultural levels (Hawkins et al., 1992). This framework by Hawkins and colleagues (1992) has been widely accepted and applied among various racial/ethnic groups to explain diverse adolescent behaviors (Szapocznik et al., 2007).

During early adolescence, exposure to risk factors through deviant peer associations and problem behaviors, both of which are key risk factors for alcohol use, escalates (Masten et al., 2008). Parental monitoring, a protective factor, often declines as adolescents spend increasing amounts of time with peers (Masten et al., 2008). Parents can play a powerful role in preventing their children from engaging in antisocial activities. A literature review that investigated family risk and protective factors for adolescent behaviors found that family influence may protect against smoking, substance abuse, unprotected sexual intercourse, violence, poor school attendance and grades, and suicidal ideation and suicide attempt (Kington & O'Sullivan, 2001).

Open and honest communication, parent-child bonding, expressing high expectations and disapproval for use of alcohol and other substances, and effective parenting practices have been shown in other studies to be protective as well for healthy adolescent development (DeVore & Ginsburg, 2005; Hawkins et al., 1992; Fulkerson et al., 2008; Kington & O'Sullivan, 2001). On the other hand, there exist several family-related risk factors that can encourage adolescent drug abuse such as family members' use of alcohol and drugs, poor and inconsistent family management practices, family conflict, and low bonding to the family (Hawkins et al., 1992).

2. Family/parental bonding and attachment

Low bonding or attachment to the family is a family-related risk factor for adolescent substance abuse (Hawkins et al., 1992). According to the SDM, bonding to pro-social others such as peers, family, and school, is regarded as a protective factor, comprised of both attachment and commitment (Catalano et al., 1998). Bonding is defined as “the attachment to others in the social unit, commitment to or investment in lines of action consistent with the socializing unit, and belief in the values of the unit” (Catalano & Hawkins, 1996, p.157). The concept behind the term “pro-social,” used in this context indicates an individual’s trust and respect for society’s normative rules, which lead to his or her actions that comply with a shared understanding of the “rules of the game” (Catalano & Hawkins, 1996).

Results from a cross-sectional analysis of a study conducted by van der Vorst and colleagues (2006) illustrated that parental attachment and drinking among adolescents are inversely related. The lower the adolescent perceived the quality of the attachment relationship, the more likely he or she consumed alcohol at an early age. These results conflict with the findings however, from the longitudinal structural equation modeling analyses from the same study with three waves of surveys, which demonstrated no effect of parental attachment on adolescents’ drinking behaviors. The authors posit that perhaps, the more an adolescent consumes alcohol, the weaker the perceived parental attachment so that alcohol use may be the cause for the emotional distance. Therefore, engaging in negative behaviors by adolescents might affect the strength of bonding with their parents (van Der Vorst et al., 2006).

Although growing alienation between parents and children commonly occurs during adolescence, it can be pronounced among immigrant families. Asian American parents often face significant cultural challenges in raising their children in the United States. A study by Qin (2006) found that in 17 case studies of Chinese families residing in the United States, twelve demonstrated signs of alienation characterized by growing conflict; and the lack of meaningful interactions, exchanges, and communication about academic and personal concerns between parents and their children.

3. **Family conflict**

Children raised in families high in conflict are at risk for both delinquency and illegal drug use (Hawkins et al., 1992). In one of the largest epidemiological studies on the relationship between child adversity and behavioral outcomes, called the Adverse Childhood Experiences (ACE) Study, participants were assessed of a number of family-related risk factors including emotional abuse, physical abuse, emotional neglect, physical neglect, battered mother, and parental discord/divorce. Results demonstrate that ACE were strongly linked with the likelihood of initiating alcohol and beginning the use of alcohol in early and mid-adolescence. For each category of adverse childhood experience, there was a two- to threefold increased likelihood of initiating alcohol use by age 14. Early adolescence showed the strongest graded relationship between ACE score and initiation, and this was true for four birth cohorts dating all the way back to 1900. This study strongly suggests that conflict like parental discord/divorce and battered mother, as well as stressors and traumatic experiences in the family environment during childhood are strong predictors of early alcohol initiation and use (Dube et al., 2006).

In a longitudinal three-wave research study conducted by Skeer and colleagues (2009), researchers followed 1517 participants for 7 years from the ages 10 through 16 years old when first enrolled until they were in their late adolescence and young adulthood periods in life, or between the ages of 15 and 22. This prospective study design aimed to explore the relationship between open family conflict during childhood and risk for substance use disorders during adolescence. Family conflict was measured using the conflict subscale of the Family Environment Scale developed by Moos and Moos (1986); and substance use disorder was defined in the study as any DSM-IV (American Psychiatric Association, 1994) diagnosis of alcohol dependence, or marijuana abuse or dependence in the past year. Participants' primary caregivers were asked about conflict within the family at Wave I, and the participants themselves were measured for any substance use disorder at Wave III. Results demonstrated that for each unit standard deviation increase in conflict, it was significantly associated with 24% higher odds of substance use

disorders later in life. Moreover, the study found that among the children exposed to family conflict, 27% developed a disorder in adolescence, compared to 18.8% among those unexposed. Nearly thirty one percent of the participants could have been prevented from developing a substance use disorder if they had not experienced high levels of conflict at home (Skeer et al., 2009).

C. Asian American Families and Adolescents

1. Collectivism and individualism

Especially among immigrant families, culture is key to understanding the trajectory of adolescent development. Adolescents develop within complex cultural environments in which families socialize their children into their values, goals, and norms (Szapocznik et al., 2007).

Although definitions of culture abound, it is widely agreed upon that culture comprises of key elements, which are shared within a given social group. These elements include “a shared language, set of norms, values, beliefs, expectations, and life experiences” (Johnson, 2007, p.307), which are passed on from one generation to the next (Triandis, 1996). Two significant dimensions of culture that directly oppose one another, collectivism and individualism, are labeled as cultural syndromes by Triandis (1996). A cultural syndrome is an arrangement of collective attitudes, beliefs, self-definitions, norms, defined roles, and values that are clustered around a theme identified among a group within geographic boundaries that share a common language during a specified period of time (Triandis, 1996). Four main aspects characterize collectivism and individualism—relationships to others, definition of self, behavior, and formation of goals (Triandis, 1995).

Relationships are central and interdependent in collectivist cultures. Collectivist cultures emphasize interpersonal relatedness, whereby individuals belong to groups (family, community, and nation) as a matter of right through birth or marriage. In individualistic cultures, group membership is earned and interpersonal relatedness less valued. Self is defined through individual identity, independence, self-

expression, and uniqueness (Chuang & Su, 2009). The definition of self in collectivist cultures is interdependent with members of groups. Collectivists prefer methods of conflict resolution such as mediation to maintain social harmony in relationships (Triandis, 1995).

Others in the group are strongly influential to members of collectivistic cultures. Shared norms among individuals in a group significantly shape behaviors. Alternatively, attitudes and anticipated consequences from behaviors primarily drive individualists' actions. Personal goals assume greater importance than the ambitions of the collective. In collectivist cultures, goals of the group take precedence over individual aims. Expectations of the group dictate moral behavior in terms of identifying a person's responsibilities, as well as the demands from family, community, and society (Triandis & Suh, 2002). If an individual deviates from such expectations for behavior, "loss of face" or dishonor, occurs for the individual and his or her entire family (Triandis & Suh, 2002). Aspects of collectivism are shared among the majority of the world's population. Traditional cultures and East Asian countries are largely collectivist, whereas Western societies like the United States are more individualistic (Kagitcibasi, 2005).

2. Asian values

Significant cultural differences between Eastern and Western societies can create conflict within immigrant families from Asia, especially between parents and their American-born children. In a study by Tsai-Chae and Nagata (2008), researchers found that Asian American college students perceived themselves as having lower adherence to Asian cultural values than their parents, as measured by the Asian Values Scale (AVS). The AVS developed by Kim and colleagues (1999) assesses individual adherence to Asian traditional cultural values. In developing this instrument, Kim, Atkinson, and Yang (1999) identified six broad categories or cultural value dimensions: *Collectivism*, *Conformity to Norms*, *Emotional Self-control*, *Family Recognition Through Achievement*, *Filial Piety*, and *Humility*.

The value called collectivism is defined as the importance of considering the group before self and the needs of others ahead of individual needs. Conformity to norms refers to complying with familial and

societal expectations and norms, fulfilling familial role expectations from gender and position in the hierarchy, avoiding bringing disgrace upon the family reputation, and reciprocating gifts from others. Emotional self-control means the ability to control emotions and resolve emotional issues without external assistance, understanding unspoken love and not openly expressing it. Family recognition through achievement describes the importance of not causing family shame or “loss of face,” and bringing family recognition through achievement both academically and professionally. Filial piety is characterized by the responsibility of caring for an individual’s elderly parents and not placing them in retirement homes, as well as recognizing that elders have more wisdom. Humility is being humble, modest, and not boastful (Kim et al., 2001).

In Tsai-Chae and Nagata’s study (2008), results suggest that measuring perceptions in upholding traditional cultural values are critical to include in models for explaining conflict among immigrant families. A specific cultural value, Conforming to Family Norms, was found to be positively related to parent-child conflict. This collectivist value clashes with the individualistic culture of the United States, and can negatively affect daily interactions between parents and their children. Other cultural values, Respecting Elders, or formerly known as Filial Piety, and Education and Career Issues, or known as Family Recognition Through Achievement, on the AVS scale were also found to be sources of conflict within families. Respecting Elders portrays obligations to respect the wisdom and authority of elders so that differing views on this value can cause discord if disagreement with parents and self-assertiveness are considered disrespectful behaviors (Tsai-Chae & Nagata, 2008).

The value Education and Career is highly relevant to the parent-child conflict due to the expectations that Asian American parents commonly have for their children to achieve academic and occupational accomplishments (Tsai-Chae & Nagata, 2008). Although high hopes may contribute to children’s educational achievement, they may also play a part in decreasing communication and emotional closeness between parent and child (Qin, 2006). In one of the families studied by Qin (2006), parental

attention was focused substantially on the educational performance and achievement of their only son. These demands along with disagreements over his future career choice caused conflict within the family so the child began to share less and less about his experiences at school with his parents (Qin, 2006).

Values held by immigrant parents may also begin to change as they adapt to a different society, creating greater culturally complex family environments in which their children are raised. In a research study conducted by Chuang and Su (2009), goals and values held by Chinese parents in China and Canada were concurrently examined, revealing that they did not significantly differ. Surprisingly, the Confucian value of obedience was regarded as least significant among the parents. Fathers who had lived longer in Canada were more likely to value independence in their children. Other highly regarded traits included both individualistic such as creativity and independence, and collectivistic characteristics like persistence and concentration, perhaps indicating that inculcation of global qualities along the individualism-collectivism orientation may oversimplify the values that are held among Asian families. The researchers hypothesize that perhaps through living, working, and gaining a greater understanding of the Canadian way of life, parents see these traits as necessary for their children to achieve success in a Western society (Chuang & Su, 2009).

3. Dissonant acculturation and intergenerational cultural dissonance

Acculturation gaps develop over time between parents and children of immigrant families as a consequence of dissonant acculturation, which is defined by Portes (1997) as a pattern of varying rates of assimilation to mainstream U.S. society. After migration, children often learn English and absorb mainstream culture at a faster rate than their parents, resulting in an acculturation gap at home (Portes, 1997). This gap itself can lead to growing parent-child separation through intergenerational conflict or ICD (Birman, 2006; Choi et al., 2008).

Intergenerational cultural dissonance is conflict between parents and children over cultural values that commonly occurs among immigrant families due to the faster rates of assimilation by adolescents, or

the adoption of values and behaviors of the new culture, and can intensify the problems resulting from the generation gap that is normally present during adolescence (Choi et al., 2008). Tsai-Chae and Nagata (2008) found that among Asian American college students, an acculturation gap in values, or the perception that parents more strongly adhered to traditional cultural values, predicted conflict. Moreover, the wider the values acculturation gap, the higher the perceived conflict with one's parents (Tsai-Chae & Nagata, 2008).

Similarly, through the development and validation of a new measure of conflict specifically for Asian American families in a study by Lee and colleagues (2000), researchers revealed that highly acculturated Asian American children who perceived their parents to be less acculturated reported greater discord than children who perceived their parents to be correspondingly acculturated. The measure, the Asian American Family Conflict Scale, assesses conflict from disagreements in values and practices in a variety of family situations due to generational differences, as well as from discrepancies in acculturation between parents and their late adolescent and young adult children (Lee et al., 2000).

Unfortunately, the presence of an acculturation gap between parents and their children can serve as a risk factor for adolescent delinquency by intensifying alienation and conflict. Choi and colleagues (2008) conducted research whose results revealed that among the Asian American adolescents surveyed, if they perceived differences in cultural values with their parents, they reported higher rates of quarreling. The stronger the degree of conflict in turn led to weaker perceptions of parent-child bonding and greater engagement in problem behaviors. Intergenerational cultural dissonance therefore encouraged antisocial behaviors including carrying a weapon to school, initiating a fight, and shoplifting (Choi et al., 2008).

4. Parenting style—East versus West differences

Through parallel dual frames of reference, differences in Eastern and Western parenting styles can develop into a source of tension between parents and children within Asian American immigrant families. This concept builds upon the idea of dual frame of reference (Qin, 2006, p.163), which refers to

immigrants comparing their experiences in the United States with their own experiences growing up or those of their peers in their countries of origin (Ogbu, 1987, p.328). Qin (2006) proposes that immigrant parents and their children develop different and parallel dual frames of reference. In a case study of two Chinese families, while the parents were inclined to compare their children's behaviors with those of adolescents in their native countries or with their own experiences growing up, their children tended to compare their parents with those of their friends or parents portrayed in U.S. media whose parenting consisted of greater two-way communication, freedom, and autonomy. Findings revealed that discord, conflict, and disconnection subsequently resulted among the families studied (Qin, 2006).

Values and goals parents have for socializing their children shape parenting styles, which then influence the parenting practices that are employed, as proposed by Darling and Steinberg (1993) in their framework, "The Contextual Model of Parenting Style." For example, the Asian cultural value of emotional self-control may hinder the ability or exercise of parenting practices to express warm feelings and love to foster parent-child bonding.

Parenting style is defined by Darling and Steinberg (1993) as "a constellation of attitudes toward the child that are communicated to the child and that, taken together, create an emotional climate in which the parent's behaviors are expressed," (p.488). Parenting styles can advance or obstruct efforts to socialize children through moderating the effectiveness of parenting practices, and encourage or inhibit the child's willingness to become socialized (Darling & Steinberg, 1993).

Baumrind (1966, 1967, 1968, & 1971) identified three main parenting styles: authoritarian, authoritative, and permissiveness. Characteristics of an authoritarian parent include efforts to influence the behavior and attitudes of the child through a set standard of conduct. Punitive measures are often used to gain compliance and obedience of the child. Obedience is highly valued and viewed as a virtue; other highly regarded values include respect for authority, hard work, and the importance of upholding order and

tradition. Authoritarian parenting lacks reciprocal communication. Parents of this parenting style believe that children should unconditionally accept the authority of adults (Baumrind, 1968).

In contrast, the authoritative parent shares with the child the reasoning behind his or her rules, guidelines and decisions, and encourages verbal give and take. Parents value the expressions and active involvement of their children in the family, as well as both autonomous self-will and obedience in their children. While children are granted independence, firm parental control is exerted when children misbehave or deviate from parents' criteria for behavior. In brief, authoritative parenting includes emotional support, high standards, two-way communication, and self-determination at appropriate levels during a child's development (Darling & Steinberg, 1993).

The third type of parenting style, permissiveness, is characterized by parental behaviors that are nondisciplinary, accepting, and affirmative toward children's impulses, desires, and actions. Decisions, rules, and guidelines for the family are not only explained, but also consulted with the children. Permissive parenting makes few demands on children to assume household responsibilities and chores, or perform obedient and disciplined behaviors. Rather than behaving as an authority figure responsible for influencing a child's ongoing and future actions, a permissive parent acts only as an available resource. The parent avoids the exercise of control, and his or her child is not required to respect familial and societal standards and expectations for behavior and conduct. Permissive parenting attempts to use reason and not authority to accomplish compliance and obedience (Darling & Steinberg, 1993).

Researchers are increasingly directing their attention to parenting styles and practices beyond samples of White, predominantly middle-class families to various racial/ethnic minority and immigrant families. Historically, East Asian parenting styles are predominantly authoritarian (Chuang & Su, 2009). In a recent study, Chuang and Su (2009) conducted a cross-national comparison of parenting styles between samples of Chinese parents residing in Canada, and Chinese parents in China. Findings from this study revealed that parents from China rated their parenting behaviors as more authoritarian and Chinese

Canadian parents were more likely to endorse authoritative behaviors, demonstrating that family socialization processes such as acculturation to Western societies become more complex as families immigrate to other countries (Chuang & Su, 2009).

In another research study, Chinese parents scored significantly higher than European Americans on measures for parental control and authoritarian parenting style, but not for authoritative parenting style (Chao, 1994). Chinese mothers also scored significantly higher on a scale composed of only Chinese child-rearing principles including the concept of *chiao shun* or training. For the European American mothers in this study, the term training carried a negative connotation that was associated with concepts that were militaristic, whereas Chinese mothers interpreted this word positively (Chao, 1994).

Chiao shun is therefore distinctive concept separate from Baumrind's classification of parenting styles (1971), indicating that it developed from the socio-cultural milieu unique to the Chinese culture. Chiao shun is a Chinese term and represents the idea that parents train children to behave appropriately, and act according to the expectations and standards of conduct through teaching and education. Another similar type of training that is specific to Chinese parents is *guan*, which means to rule, direct, or regulate. Along with the aspect of control by setting expectations, always monitoring and correcting behaviors for chiao shun and guan, they also connote a caring and loving attitude towards their children, and include high levels of involvement that calls for commitment and sacrifice. This training responsibility characteristic of the Chinese parenting style falls on the parent as defined by specific role requirements that have evolved from Confucian principles. These principles require that children must demonstrate loyalty and respect to their elders. Also, elders must instruct children through examples of proper behaviors, discipline, and inhibit exposure and access to inappropriate ones (Chao, 1994).

5. Immigration factors toward parent-child alienation

Immigration removes families from a familiar environment and social support network of extended family members and friends. Acculturative stress can result from the need to learn a new

language, culture, as well as learning to navigate new health, education, and other social institutions (Hernandez, 2004; Qin, 2006).

Unique social, cultural and economic challenges can create discord and alienation between immigrant parents and their children, and hinder efforts to promote strong bonds (Qin, 2006). Immigration can often disrupt traditional family roles. For example, children commonly serve as language or cultural translators or brokers for adult family members. Language brokering is the practice of translating and interpreting (Morales & Hanson, 2005), which can involve a variety of activities such as translating and filling out documents and forms for schools, financial institutions, job applications, and government agencies; making appointments with medical and social service organizations; visiting hospitals and doctors; and answering telephones. Children in immigrant families are expected to provide assistance to their parents in situations that may not be developmentally appropriate (Trickett & Jones, 2007; Morales & Hanson, 2005).

Whether or not cultural brokering negatively affects family cohesion and the parent-child relationship among immigrants is unknown. Currently, there exist two perspectives on this issue at the opposite ends of the spectrum. The first perspective opposes children serving as cultural brokers, believing that this type of experience negatively affects the normal dynamics of the parent-child relationship through unhealthy role reversals as a result of the dependence parents place on their children. Other studies have demonstrated that the experiences associated with cultural brokering can help children develop stronger bonds with their parents through their participation in family responsibilities and decision-making (Morales & Hanson, 2005).

Trickett and Jones (2007) found that both first and second generation Vietnamese adolescents reported serving as cultural brokers for their families, with the second generation adolescents to a lesser degree. Parents of the second generation adolescents had lived in the United States for a longer period of time. The authors also showed that the amount of adolescent cultural brokering was unrelated to family

cohesiveness. They argue that the children understood the challenges their immigrant families faced, and viewed cultural brokering as a necessity regardless of their relationships with their parents. While cultural brokering did not adversely affect family functioning, the study revealed that it contributed to family disagreements reported by adolescents, although not by parents (Trickett & Jones, 2007).

Linguistic barriers can often become a prominent issue within immigrant families. Many children in immigrant families speak a language other than English at home, and live in linguistically isolated households (Hernandez, 2004). As immigrant children gain proficiency in English, they slowly lose their native tongue, particularly those words that describe more complicated thoughts, ideas, feelings, and emotions. While most parents and children can effectively communicate about their day-to-day experiences, the more meaningful and profound personal communication that contributes to emotional intimacy tends to diminish. When this type of communication is gradually lost in families over time, alienation may occur (Qin, 2006).

Hahm and colleagues (2003) revealed that the most acculturated Asian American adolescents who spoke only English at home and were born in the United States engaged in higher rates of alcohol use than the less acculturated Asian American adolescents who spoke a language other than English at home. The authors hypothesized that the use of an ethnic language at home prevents adolescents from engaging in unhealthy and problem behaviors. One reason may be that speaking an ethnic language at home indicates parental involvement in transmitting and sharing cultural information and traditions to their children, given that language and culture are deeply intertwined (Hahm et al., 2003).

Other possible immigration factors that can cause emotional distance within families include parent-child separation and parents' work demands outside the home. In many immigrant families, one parent might have first arrived in the United States and then sometime later, bring the rest of the family over. The resulting long separation between parent and child can lead to emotional detachment, and contribute to an estranged relationship (Qin, 2006).

Work demands on parents commonly increase after migration to the United States (Hernandez, 2004). Immigrant parents' work schedules of long hours such as in restaurants or other service jobs allow only for a negligible amount of time parents and children can spend together and share their experiences, which greatly reduce the opportunities for families to connect emotionally, a critical issue especially among working-class families (Qin, 2006).

D. Acculturation and Adolescent Substance Use

Researchers are increasingly examining acculturation and its relationship with adolescent outcomes as a risk factor, including the use and abuse of substances due to the rapidly growing diversity of the U.S. population (Yu et al., 2003; Blake et al., 2001; Chen et al., 1999; Georgiades et al., 2006; Gfroerer & Tan, 2003; Le et al., 2009; Unger, et al., 2000). Recent immigrants make up significant proportions of racial/ethnic minority groups so that grasping the complexities of acculturation has become a foremost concern (Smokowski et al., 2009).

Acculturation itself can add risk for adolescents to engage in antisocial activities. As immigration may remove or lessen the protective effect of parent-child bonding against adolescent substance abuse and other problem behaviors, adolescents of immigrant families themselves undergo significant internal changes as a result of acculturation during an otherwise critical and transitional period of time in life. They are struggling to establish their own identity and autonomy (Steinberg & Morris, 2001). Along with the normative social, emotional and physical development-related stressors that occur during adolescence, further strain can result

1. Acculturation and Asian American alcohol use and abuse

Acculturation has shown to be positively related to adolescent problem behaviors, including substance abuse, among Hispanic immigrant adolescents (Saint-Jean, Martinez, & Crandall,

2008; Szapocznik, Prado, Burlew, Williams, Santisteban, 2007). Similarly, this relationship has also been found among Asian adolescents of immigrant families.

Cook and colleagues (2009) found that acculturation was positively associated with the total number of drinks during the past month. Findings revealed that Korean American adolescents who associated with non-Korean peers were more likely to consume alcohol with a greater quantity of drinks than those who socialize with Korean American peers ($\beta = 3.29$, $p < 0.05$). (Cook et al., Irvin, 2009)

In a second study by Hahm and colleagues (2004), higher acculturation was discovered to significantly increase the likelihood of binge drinking among Asian American adolescents (O.R. = 1.34, $p < 0.05$). However, when use of substances, alcohol and tobacco, by best friends was added to the model, the significant association between acculturation and binge drinking was no longer noteworthy. Therefore, close friends' substance use mediated the relationship between acculturation and binge drinking. The researchers additionally observed no gender differences among the adolescents in their engagement in binge drinking. The authors hypothesize that this may be due to the acculturation effects of weakening traditional cultural gender norms around alcohol use (Hahm et al., 2004).

Hendershot and colleagues (2005) found that the level of acculturation was significantly related to alcohol use in the past 30 days, with each unit increase in level of acculturation associated with a greater likelihood of using alcohol in the past month among Asian American college students (O.R. = 1.70, $p < 0.017$). Additionally, a one-unit increase in level of acculturation was related to an approximately two times greater likelihood of heavy episodic alcohol use (O.R. = 1.94, $p < 0.017$), defined as consuming four or more drinks for women and five or more drinks for men on one occasion in the past two weeks. Higher levels of acculturation were then significantly related to a greater likelihood of current and heavy episodic use (Hendershot et al., 2005).

Lastly, Thai and colleagues (2010) conducted research, which revealed that the more acculturated adolescents had a 17% higher likelihood of drinking (O.R. = 1.17, $p < 0.01$). Acculturation was

demonstrated to no longer predict drinking, however, after peer substance use and academic achievement were included in the model. Results from the study suggest that a significant factor, peer substance use, partially mediated the effects of acculturation on use of difference substances such as cigarettes, marijuana, and lifetime use of alcohol. Compared to the other racial/ethnic groups studied—Whites, Hispanic, African Americans, and others—acculturation was a more relevant factor in alcohol use among Asian American adolescents (Thai et al., 2010).

2. Moderating role of parent-child bonding

In a research study by Hahm and colleagues (2003), the level of acculturation to mainstream U.S. society among Asian American adolescents was examined to determine if acculturation predicted behaviors related to alcohol use. The study further assessed whether or not highly acculturated Asian American adolescents with strong parental attachments drink less than highly acculturated Asian American adolescents with weak parental attachments. Using data from the National Longitudinal Study of Adolescent Health, a stratified nationally representative sample of all public and private high schools in the United States were collected with a total of 714 Asian American adolescents included in the sample size for the study's analyses (Hahm et al., 2003).

The study found that the most acculturated Asian American adolescents had the highest risk of using alcohol in both Waves I and II, and in fact, were three times more likely to have been involved in alcohol use compared with the least acculturated group (O.R. = 3.17, $p < 0.01$). When parental attachment was reported to be at its lowest level, the odds of alcohol use were 11.27 times greater in the most acculturated than the least acculturated group ($p < 0.001$). For adolescents with high levels of perceived parental attachment, no evidence was found that the most and the least acculturated adolescents were different in their risk for alcohol use. Acculturation therefore was not a risk factor for alcohol use among Asian American adolescents unless they perceived low attachment to their parents. Furthermore, parental attachment was only significant for Group 1, or the most acculturated, and shown to serve as a protective

factor, but showed no interaction effects for the rest of the groups. For every one unit increase in parental attachment among Asian American adolescents in Group 1, the odds for drinking decreased by a factor of 0.85 ($p < 0.01$) (Hahm et al., 2003).

E. Guiding Good Choices

The purpose of family-based preventive interventions, such as GGC, is to prevent alcohol and drug abuse and co-occurring antisocial behaviors among adolescents through promoting effective parenting and strengthening families (Kumpfer & Kaftarian, 2000). Considerable evidence exists for the effectiveness of family-focused programs (Bauman et al., 2001; Haggerty et al., 2008; Park et al., 2000; Reid et al., 2001; Spoth et al., 2004).

Guided by the SDM, the family-based intervention, GGC, formerly known as Preparing for the Drug Free Years, was developed to address risk and protective factors for adolescent alcohol and other substance use through parenting practices to increase bonding between parent and child. The population targeted for this program is parents of children between the ages of 9 to 14 years old. It was originally developed in 1987 by J. D. Hawkins and R. F. Catalano for Developmental Research and Programs of the Seattle Social Development Project, a longitudinal research study funded by the National Institute on Drug Abuse (Catalano et al., 1998).

Bonding to the family develops when children are socialized through processes of social learning, which involve the: (1) availability of pro-social opportunities for the child's involvement in the family; (2) skills the child uses for completing tasks, solving problems, and interacting with others in the family; and (3) rewards and punishments for the child's behaviors that conform or violate family expectations and beliefs (Catalano et al., 1998). Bonding between parents and their children is the long-term goal of GGC, which aims to achieve this through specific parenting practices that address the processes discussed. The five

sessions of the program seek to instruct parents on the following practices to: (1) create opportunities for involvement and interactions in the family and reward their children's participation; (2) set clear expectations, monitor behaviors, and practice appropriate discipline; (3) teach children refusal skills to resist peer pressure and engagement in delinquent behaviors; (4) manage and reduce family conflict; and (5) express positive feelings and love to promote family bonding (Kosterman et al., 2001).

In a longitudinal study by Park et al. (2000), researchers evaluated the effectiveness of GGC on addressing family risk and protective factors targeted by the program, increasing the ability of participating adolescents to resist negative peer influences, and inhibiting the growth of alcohol use during adolescence. Twenty-two schools in a rural Midwestern state were randomly assigned to the GGC intervention or the control condition, and all families of 6th grade students enrolled in these schools were invited to participate. Forty-eight percent or 424 families agreed to participate and completed the initial pretest surveys. Another 85% of the participating families completed the posttest assessments; and 73%, 67%, and 70% of these families completed the 1- year, 2-year, and 3.5-year follow-up assessments respectively. Parents assigned to the intervention group were enrolled in the GGC programs, which were all implemented with the same content. Control group families did not receive the intervention, but were sent four informational leaflets that discussed adolescent development by mail.

Using latent growth models, findings revealed that over time, parents who received GGC showed significant increases than the control group in norms against alcohol and other drug use, such as attitudes toward underage drinking. No differences, however, were found between the two groups in family conflict. Families that participated in Guiding Good Choices reported the same slight increase in conflict as the control families during this time period as their children grew from age 11 to 14. Findings did suggest a modest improvement in family management practices such as setting clear expectations, monitoring behaviors, and practicing appropriate discipline among the intervention families compared to the control

families over time. The authors suggest that perhaps poorly functioning families would receive greater benefit from learning parenting practices to reduce family conflict and improve family management.

Additionally, no differences were found between the two groups in participating adolescents' ability to refuse negative peer influences and in fact, it was revealed that among both groups, adolescents became more unlikely to resist their peers. Though the increase in alcohol use among adolescents in the study sample was considerable, results indicated significantly less growth in alcohol use among adolescents in the GGC condition compared to the control (Park et al., 2000).

F. Translational Research

In public health, translational research describes a process of how research is applied to practice in affecting health behaviors (Sussman et al., 2006). It consists of two main areas as identified by the NIH. Type I translation applies the knowledge and data gathered from basic research to develop prevention programs and test their efficacy. The second type of translational research, or Type II, is aimed at enhancing the dissemination, adoption, and implementation of evidence-based interventions and practices in real-world settings for the purpose of sustaining and institutionalizing effective programs, products, and services (Solomon et al., 2006; Rohrbach et al., 2006). The effort to bring prevention programs proved efficacious in controlled, experimental conditions to community settings is a major concern. Oftentimes, Type II translational research no longer yields the effectiveness outcomes seen in the previous phase. Successful implementation of prevention programs therefore results from both implementation of the program with fidelity, as intended by the original developers to maintain its effectiveness, and the acceptability or buy-in of target community members (Solomon et al., 2006). Increasingly, the concern is that while the knowledge base for disease prevention grows and results in evidence-based interventions, research on the dissemination, adoption and implementation of these programs in real-world community settings fails to keep pace (Rohrbach et al., 2006). Basic research is primarily conducted without planning

for the future translation of its knowledge to practice; and relatively less studies explore approaches to incorporating research findings in preventive interventions to promote positive health outcomes (Sussman et al., 2006).

Kumpfer and Alvarado (2003) argue that the current challenge is the adoption by practitioners to implement evidence-based, family-focused programs with fidelity to maintain their effectiveness. Unfortunately, many program implementers lack adequate resources, staffing, and training to implement interventions as originally planned, and subsequently make changes to adapt them to their own circumstances (Solomon et al., 2006). Often, community-based organizations also perceive that programs do not fit in with the local community context, culture and values (Miller, 2001; Solomon et al., 2006). While adaptations can promote greater acceptance of the intervention by the community it serves, they can also inadvertently remove an intervention's core components that are theoretically based, resulting in decreased effectiveness (Soloman et al., 2006).

Culturally adapting prevention programs, while maintaining fidelity, can facilitate the shift of an intervention from Type I to Type II translational research. It fills the gap that exists between the two areas of research by serving to increase the acceptance of the intervention by the target population through becoming linguistically and culturally appropriate; and improve recruitment and retention rates, and program satisfaction and outcomes (Castro et al., 2004; Solomon et al., 2006; Dillman Carpentier et al., 2007).

G. Cultural Adaptation of Prevention Programs

1. Conception of culture in health promotion

One definition of culture among many is the “shared language, set of norms, values, beliefs, expectations, and life experiences of a given social group” (Johnson, 2007, p.307). Culture has been conceptualized in numerous ways by various disciplines for diverse purposes. The importance of

culture in research, Kao and colleagues (2004) argue, is its ability to explain variations in human behavior despite difficulties integrating the concept in both health practice and research. Therefore, researchers often attempt to incorporate the concept of culture by using cultural factors to identify populations at risk or differences among them. Others use culture to identify cultural influences as determinants of risky or healthy behaviors both directly and indirectly (Pasick et al., 1996).

Race, ethnicity, language, nationality, and geographic location are often measured as proxies for culture as a result of both convenience and assumptions that these proxies can serve as indicators of cultural beliefs, values, norms, and practices (Kao et al., 2004). However, Pasick and colleagues (1996) argue that no theoretical basis exists for studying behavior by race and ethnicity. It can lead to the misuse of the concept of culture, negatively portraying racial/ethnic minority populations through models of cultural deficiency and unintentionally causing stigma and discrimination (Kao et al., 2004). Culture is not synonymous with race and ethnicity as revealed through the numerous definitions of culture that share key elements such as values, beliefs, and norms. Moreover, these elements may differ or be similar across ethnic groups (Pasick et al., 1996).

A meaningful understanding of the concept of culture can thus improve its conceptualization, and therefore measurement, in research (Kao et al., 2004). Moreover, although not often considered but important nevertheless is defining culture within a specified context of the prevention effort by identifying relevant cultural factors that affect the behaviors targeted (Soloman et al., 2006). Pasick and colleagues (1996) offer a simple, operational definition of culture to understand its relationship explicitly to health promoting behavior. They propose that culture is “revealed through the unique shared values, beliefs, and practices that (1) are directly associated with a health-related behavior, (2) are indirectly associated with that behavior, and/or (3) influence acceptance and adoption of the health education message” (p. S147). This definition of culture can be used to guide the cultural adaptation of health promotion and disease prevention programs.

2. Surface and deep structural levels

The definition of culture that Pasick et al., (1996) propose points to the deep structural level of cultural adaptation. Culturally adapting a program occurs at both its surface and deep structural levels. The structure at the surface level involves an understanding of the social and behavioral characteristics of the behavior of the targeted population to change the language, and the appearance of an intervention such as its role models, music, and other program materials to match. It can also involve identifying effective and appropriate media channels and setting for recruitment, and employing racially/ethnically matched staff to administer the program and deliver its messages to the target population. The fit of the intervention in the culture of the population can promote its acceptance and comprehension of the messages (Resnicow et al., 2000; Castro et al., 2004), as well as its recruitment of ethnic minorities (Harachi et al., 1997).

Cultural adaptation at the deep structural level, on the other hand, reflects how cultural, social, psychological, environmental, and historical factors influence health behaviors (Resnicow et al., 2000). It addresses the core values, beliefs, norms, and worldviews of the targeted cultural group to provide the context, and give saliency to the problem of focus (Resnicow et al., 2000; Castro et al., 2004). For example, the individualism-collectivism contrast corresponds to the “deep structure” of cultural differences (Triandis & Suh, 2002). Pasick and colleagues (1996) argue that a deep understanding of how culture influences behavior is necessary for the cultural adaptation of prevention programs.

“A cultural symbol system, ideology, or convention can function as a lens through which people perceive and understand events that they experience,” writes Kagitcibasi (2005, p. 405). Whether or not culture plays a role in health behavior can only be determined through directly assessing its cultural dimensions, beliefs, values, and the relationships among cultural variables, psychological processes and the setting or environment surrounding the behavior (Pasick et al., 1996). In the cultural adaptation of health promotion and disease prevention programs, a commonly used method involves gathering

qualitative data through focus groups to guide the adaptation of an intervention to fit or match the surface and deep structural roots of a culture for a racial/ethnic minority population (Resnicow et al., 2000).

The debate on the effectiveness and merit for the amount of time, effort and resources to culturally adapt programs continues in large part due to the lack of theory and rigor in commonly-used methods to match programmatic content and delivery to the culture of a population, particularly at the deep structural level (Marek et al., 2006). While it has been noted that the use of theory is critical in adaptations (Soloman et al., 2006; Castro et al., 2004), a lack of guidance exists as to how theory can be used to: (1) identify deep structural level cultural factors that may be relevant to examine for their influences on behaviors; and (2) explore the relationships of these factors, risk or protective, to the constructs of the original theory used in developing the program to determine if they still significantly result in the outcomes targeted.

III. MACRO-THEORETICAL CONCEPTUAL FRAMEWORK

A macro-theoretical conceptual framework, developed from a synthesis of the TTI, the CMPS, and the SDM, hypothesizes the relationships between family-based risk and protective factors, ICD and parent-child bonding respectively, and use and abuse of alcohol by adolescents within Chinese American families.

The overarching theory in this framework is the TTI, a macro-level theory developed by researchers Flay and Petraitis (1994). It incorporates both distal and proximal factors to describe empirically, the pathway of culture from the broader socio-cultural macroenvironment to influence family-based risk and protective factors. The SDM (Catalano & Hawkins, 1996) defines those parenting practices that can promote bonding by hypothesizing the processes through which children are socialized to attach to their parents. This model was used in the development of the family-based prevention program, GGC (Catalano et al., 1998). The CMPS (Darling & Steinberg, 1993) provides an understanding of how parenting style moderates the relationship between parent-child bonding and adolescent risk for alcohol use. Ultimately, the findings based on this conceptual framework, shown in Figure 1, will serve as the foundation for the roadmap to culturally adapt a family-based prevention program, GGC, at the deep structural level.

A. Theory of Triadic Influence

The overarching theory used in this framework is the TTI, a comprehensive, meta-theoretical perspective developed by researchers, Flay and Petraitis (1994), which integrates main constructs from prominent microtheories of health-related behavior at the individual level, such as the Health Belief Model, Theory of Planned Behavior, and Social Learning Theory. The purpose of this theory in the conceptual framework is to identify cultural factors at the deep structural level, which influence family-based risk and protective factors that encourage or prevent adolescent alcohol use. This theory proposes three major

streams of influence on health-related behavior that flow down through five “tiers” from ultimate to distal to proximal causes of behavior. They are the cultural environmental, social situational or contextual, and intrapersonal influences.

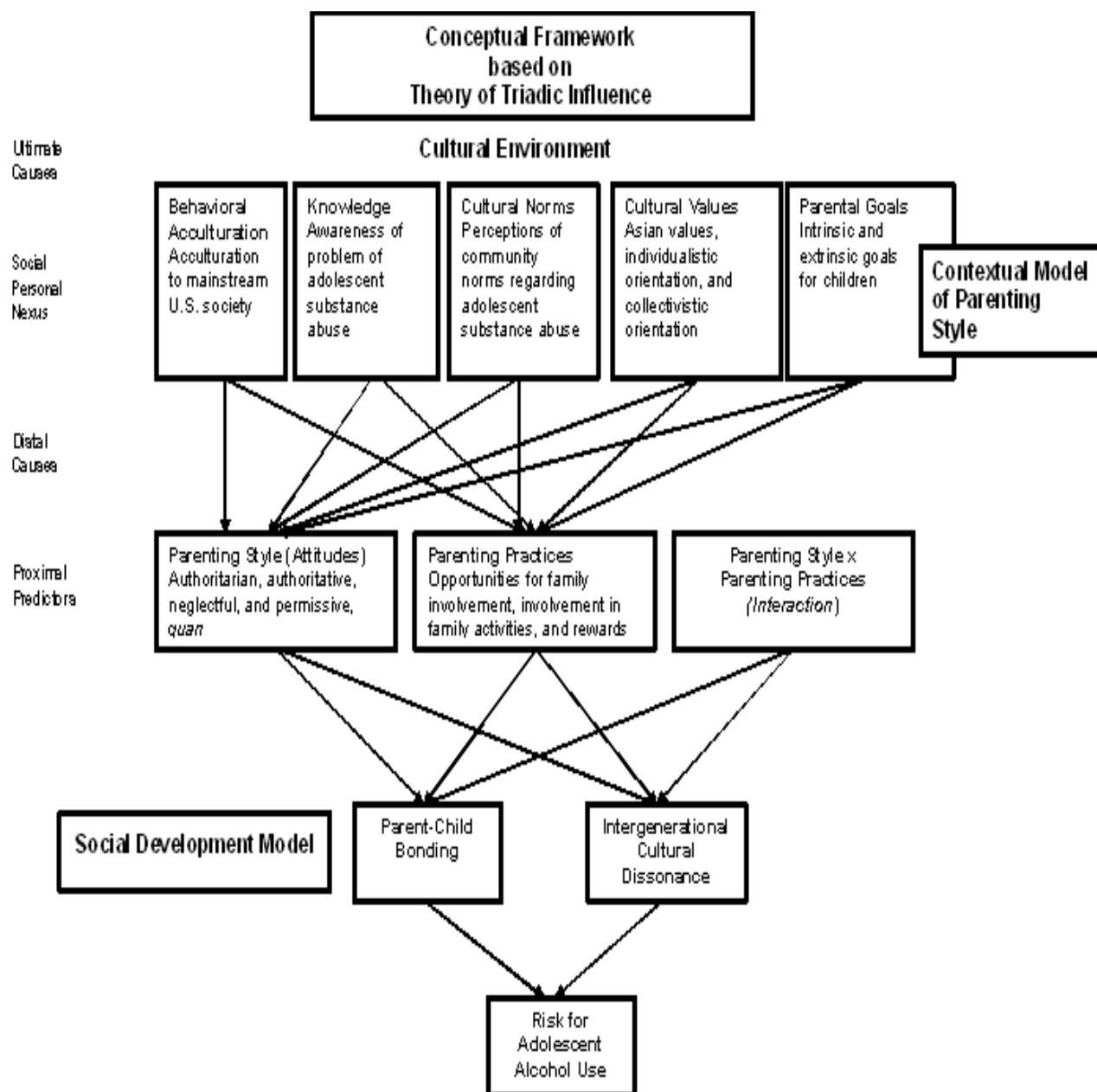


Figure 1. Macro-theoretical conceptual framework to understand family-based cultural influences on risk for alcohol use among Chinese American adolescents.

The first stream, or the cultural environmental influences, includes the broader socio-cultural macroenvironment that affects the attitudes toward performing a health-related behavior by its impact on the knowledge and values held. The social situational or contextual influences concern the microenvironments or more immediate social settings surrounding behavior. It asserts its influence through shaping normative beliefs regarding a behavior through learning from others in the same environment such as peers and family members, and motivations to comply with these other individuals through social bonding. Lastly, the third stream, intrapersonal influences, involves the characteristics of a person such as inherited traits and personality dispositions. This influence acts on the person's self-determination and social skills through an individual's sense of self and general social competence, which in turn impact his or her self-efficacy for performing the health-related behavior (Flay & Petraitis, 1994). This research study proposes that the TTI can guide the cultural adaptations of prevention programs because it incorporates both distal and proximal factors to describe empirically, the influence of culture from the ultimate tier or at the deep structural level to the last tier of decision-making or intention to perform a behavior.

For the purposes of this study, only the first stream, cultural environmental influences, will be explored. A more focused understanding of the mechanisms by which this stream influences family-based risk and protective factors among the target population, parents of Chinese American adolescents, is critical for the cultural adaptation of GGC at the deep structural level. The Theory of Triadic Influence asserts that the cultural environment provides information and transmits cultural values so that it contributes to knowledge and shapes the values held toward health-related behaviors respectively. Knowledge and personal values together affect the attitudes toward a behavior by expectations regarding its consequences and the evaluation of those consequences. Attitudes, or the fourth tier of influence in this theory, determine the decision or intention to act. The cultural environmental stream of influence thus allows empirical relationships to be measured for an understanding of how culture, as defined by Pasick and colleagues (1996), affects parent-child bonding and conflict within families.

Acculturation to mainstream U.S. society is also hypothesized, in this conceptual framework, to impact bonding and intergenerational cultural dissonance within families of the target population. This additional construct was not originally hypothesized in TTI. However, it has been included because of the population targeted in this research study comprises primarily of racial/ethnic minority and immigrant families. According to Berry (2005), acculturation is “the dual process of cultural and psychological change that takes place as a result of contact between two or more cultural groups and their individual members. At the group level, it involves changes in social structures and institutions and in cultural practices. At the individual level, it involves changes in a person’s behavioral repertoire” (p. 698). It is hypothesized that if parents hold strongly onto the culture of their countries of origin, or are slower to acculturate to the broader society, then greater family conflict will result such as through intergenerational cultural dissonance (Choi et al., 2008; Berry, 2005).

B. Contextual Model of Parenting Style

The second model synthesized in this macro-theoretical conceptual framework is the CMPS, whose purpose is to provide an understanding how parenting style moderates the relationship involving the specific parenting practices targeted by GGC and bonding, or the lack of these practices and intergenerational conflict, between parents and their children.

Darling and Steinberg (1993) of CMPS argue the importance of examining parenting style as the context within which the practices occur because it can influence the effectiveness of parents to socialize their children. The CMPS defines parenting style as “a constellation of attitudes toward the child that are communicated to the child and that taken together, create an emotional climate in which the parent’s behaviors are expressed” (Darling & Steinberg, 1993). Parenting style is an attitude, which is also a construct of the TTI that directly influences behavior. The CMPS proposes that parenting style is shaped by the values parents hold and goals parents have for socializing their children, and in turn, influences the

parenting practices that are employed (Darling & Steinberg, 1993). It further hypothesizes that parenting practices directly affect a child's developmental outcomes, which are parent-child bonding and conflict in the context of this study.

Parental goals for their children, as outlined by the CMPS, includes acquiring skills and behaviors and more broadly, the child's development of "global qualities" such as curiosity, critical thinking, independence, spirituality and the capacity to experience joy or love (Darling & Steinberg, 1993). Values are also found to be a relevant cultural factor to influence attitudes toward a behavior in the TTI. Asian cultural values such as emotional self-control may hinder the ability or exercise of parenting practices addressed by GGC such as the expression of warm feelings and love to their children to foster bonding (Kim et al., 1999). Within this model, the parenting style specific to Chinese parents, *guan*, will also be measured (Chao, 1994).

C. Social Development Model

The purpose of the SDM in the conceptual framework is to understand how parent-child bonding occurs as a result of parenting practices, or whether the lack of these practices result in ICD. The family-based cultural influence, ICD, was added to this framework to account for both risk and protective factors on adolescent alcohol use.

Guided by the SDM, the family-based intervention, GGC, was developed to address risk and protective factors for alcohol and other substance abuse through parenting practices to increase bonding between parent and child. Bonding to the family, more specifically, develops when children are socialized through processes of social learning. Bonding to the family involve the: (1) availability of pro-social opportunities for the child's involvement in the family; (2) skills the child uses for completing tasks, solving problems, and interacting with others in the family; and (3) rewards and punishments for the child's behaviors that conform or violate family expectations and beliefs (Catalano et al., 1998).

Parenting practices from sessions within GGC that are particular to promoting parent-child bonding will be measured among parents and children within Chinese American families in this research study through indicators of SDM from past studies (Catalano et al., 1999; Brown et al., 2005; Choi et al., 2005; Fleming et al., 2002). Specifically, indicators that assess: (1) opportunities for a child's involvement in family fun and decision making activities; (2) a child's actual involvement in family activities; and (3) praise and rewards for family involvement will be applied to understand the relationship between parenting practices and ICD (Fleming et al., 2002).

In conclusion, the macro-theoretical conceptual framework is used in this dissertation research study to examine the role parent-child bonding plays as a protective factor against alcohol use, and simultaneously, the effect of ICD as a risk factor that encourages use among Chinese American adolescents. It hypothesizes that parenting practices create bonding between parents and their children, and aims to uncover whether the lack of these practices result in intergenerational conflict. *Contextual Model of Parenting Style* moreover is included in this framework to explore the interactions among parenting styles with parent-child bonding and conflict on risk for alcohol use. Ultimately, this framework serves to identify potentially relevant deep structural level cultural influences on family-based risk and protective factors; and to hypothesize the relationships of these factors to the constructs of the original theory, the SDM, of GGC to determine the pathway of culture on parent-child bonding to prevent adolescent alcohol use and abuse for the future cultural adaptation of this family-based program.

IV. OVERVIEW AND DESIGN OF STUDY

The focus of this research is to advance an understanding of a culturally-based factor, ICD, within Chinese American families and its relationship to increasing the vulnerability of adolescents to engage in alcohol use. The research is guided by a macro-theoretical conceptual framework developed from a synthesis of the TTI, SDM, and CMPS. Using this framework, the following main research questions are posed: (1) How is parent-child bonding associated with risk for alcohol use among Chinese American adolescents? (2) How is ICD associated with risk for alcohol use among Chinese American adolescents? (3) How is the acculturation gap associated with ICD within Chinese American families with adolescents? (4) How are parenting practices associated with ICD within Chinese American families with adolescents?

The four primary hypotheses are: (1) Parent-child bonding will decrease risk for alcohol use among Chinese American adolescents; (2) ICD will increase risk for alcohol use among Chinese American adolescents; (3) the acculturation gap will increase risk for ICD within Chinese American families with adolescents; and (4) parenting practices that strengthen parent-child bonding will decrease ICD within Chinese American families with adolescents.

Data were collected from parent-child dyads with measurement from one child and one parent within a family. All students in the 6th through 8th grades and their parents from three elementary schools in the Chicago's Chinatown neighborhood and Armour Square and Bridgeport community areas were recruited to participate in this study. These elementary schools were selected due to the racial/ethnic compositions of their student populations with large majorities that were Chinese American. Nonprobability sampling was chosen for this research study due to the hard-to-reach and unique population targeted. From a total of 203 Chinese American parent-child dyads that were collected, 187 parent-child dyads were included in the final analyses.

Students were assessed through self-administered questionnaires to primarily measure the relationships among ICD with self-reported alcohol-use initiation, behaviors, and intentions. A major aim of the parent survey was to understand the cultural context of parenting practices to promote parent-child bonding or ICD. The student and parent questionnaires were developed by constructing questions on adolescent substance use, and selecting scales that had previously demonstrated strong reliability and validity within similar populations to assess the theoretical constructs (behavioral acculturation, values acculturation, parenting practices, parenting style, ICD, and parent-child bonding).

The parent questionnaire, recruitment letters, and other related material were translated into Chinese (Mandarin) due to the limited English proficiency of parents in the target population. They were translated into Chinese through a scientifically rigorous approach (Harkness et al., 2002, 2004). Two professional translators first completed parallel translations. Following the completion of the translations, a committee was formed that included the principal investigator, two translators, and a bilingual research assistant to review and determine which versions were the most accurate and linguistically appropriate for the target community, and ensure their quality. Additionally, the parent questionnaire was translated into both Simplified and Traditional Chinese. Simplified Chinese is the formal written language in China, while Traditional Chinese is used in Taiwan. Simplified and Traditional Chinese are both used in Hong Kong. The student questionnaire was also translated into Simplified Chinese for those students who recently immigrated from China and Hong Kong.

Student questionnaires were administered in the classrooms at participating schools. Parents of Chinese American students completed self-administered questionnaires sent home. Significant efforts were made to minimize response bias through different approaches including providing incentives to both students and parents, training research assistants on collecting survey data, pretesting the questionnaires, hiring professional translators, and sending reminders to parents. To obtain the highest response rate

possible among parents, the *Tailored Design Method* for conducting mail surveys (Dillman, 2007) was adapted to be used in this study to include five points of contact through mailings, reminder postcards, and materials sent home.

Prior to the data collection for this research study, a pretest of the instruments was conducted in the community during the summer of 2011. Two community-based organizations, Project Vision and Chicago Chinese Language School, located in Chinatown were recruited to participate. In total, 16 Chinese American students between the ages of 10 to 15 years old, and seven parents completed the self-administered questionnaires. Students were administered the questionnaires by the principal investigator and her research assistant at the community-based organizations. Parents were given questionnaires that had been translated into Simplified Chinese to complete at home. Students and parents were asked if they found the questionnaire difficult to complete; and if they had any questions regarding the wording and instructions, or had other concerns after administration of the surveys. Two parents agreed to meet to discuss the parent questionnaire in-depth. Students were provided with small token incentives and parents were offered \$10 Target gift cards for their participation. This provided an opportunity to allow for changes to the surveys and administrative procedures to minimize bias, and obtain reliable and valid data. Data collection began at participating elementary schools at the beginning of the fall school semester of 2011

V. RESEARCH METHODS

A. Study Sample

1. Sampling and selection criteria

Data were collected from parent-child dyads with measurement from one child and one parent within a family. The sampling unit was therefore the parent-child dyad. The sampling frame consisted of all students who were enrolled at John C. Haines Elementary School, Robert Healy Elementary School, and St. Therese Chinese Catholic School in the 6th, 7th, and 8th grades in the fall of 2011 (N = 745). For the purposes of this research study, only students who self-identified on the student survey as Chinese American or mixed Chinese American heritage were included in the final sample. One parent, mother or father, of each student enrolled at the three elementary schools was also recruited to complete the parent questionnaire. The parent that was most involved in the daily activities of his/her child was asked to complete a self-administered questionnaire. These elementary schools were selected due to the racial/ethnic compositions of their student populations with large majorities that were Chinese American. Nonprobability sampling was chosen for this research study due to the hard-to-reach and unique population targeted.

2. Sample population

A total of 753 respondents participated in the study with 391 parents and 362 students completing a questionnaire; response rates were 52.5% and 48.6% respectively. Of the 753 participants, 241 parent-child dyads were identified, and of these, 203 dyads were specified as Chinese American. From a total of 203 Chinese American parent-child dyads that were collected, 187 parent-child dyads were included in the final analyses. The remaining sixteen dyads were not included due to missing data issues. Figure 2 presents a flow diagram of the sample population, and the total number of cases that were used in the final analyses.

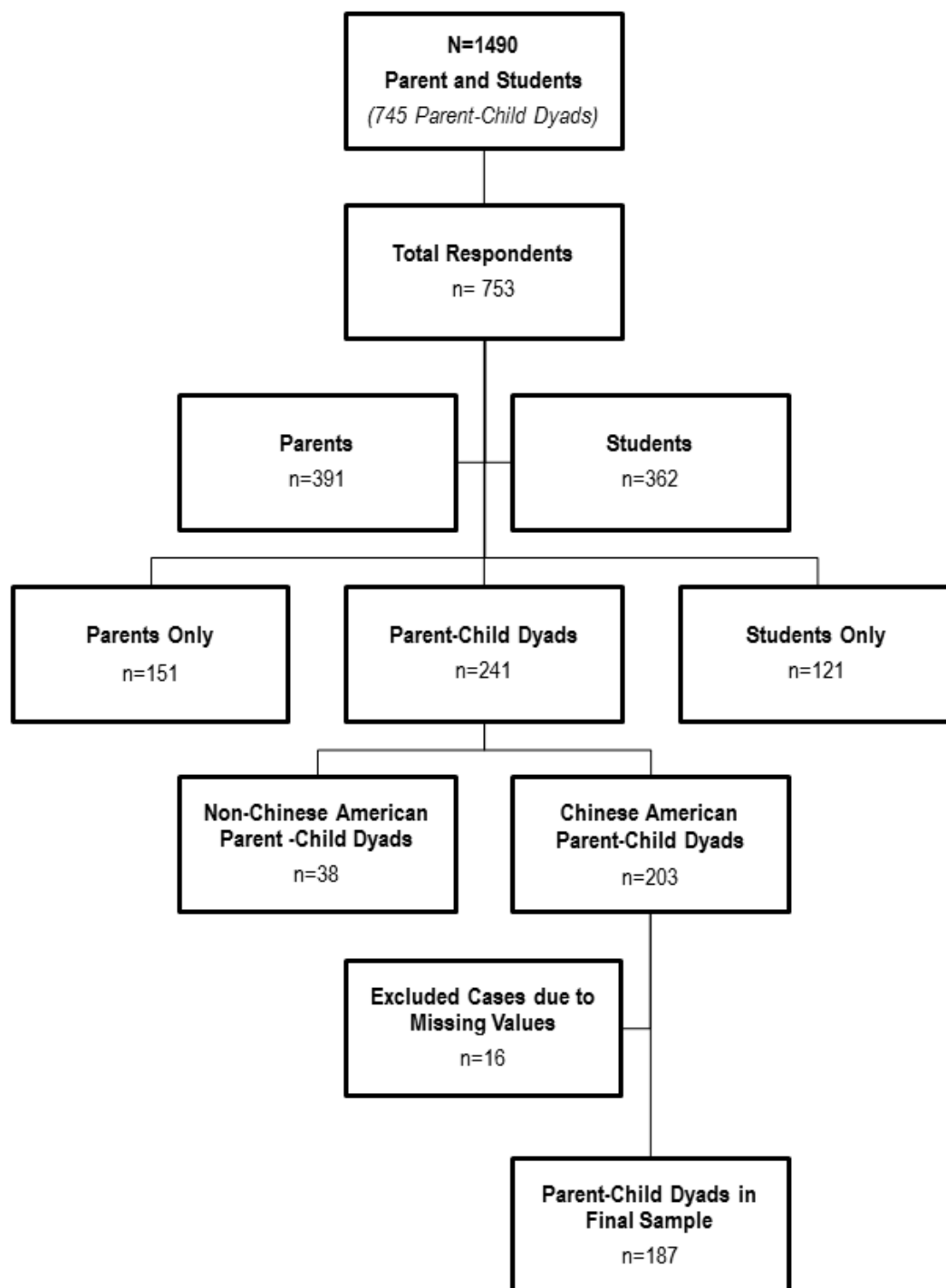


Figure 2. Flow diagram of sample population and total number of parent-child dyads in the final sample.

Of the Chinese American students included in this sample, 59.7% ($n = 111$) were girls, and 40.3% ($n = 75$) were boys as shown in Table I. Age ranged from 10 to 15 years old. About twenty-three percent ($n = 41$) were 11 years old, 35.0% ($n = 62$) were 12 years old, 31.1% ($n = 55$) were 13 years old, and around 10% ($n = 18$) were 14 years old. The mean age of the students was 12.3 years old ($SD = 0.96$). There was no significant difference in age between females and males ($t = 0.47$, $df = 175$, $p = 0.63$). Nearly twenty-nine percent ($n = 53$) reported being in 6th grade, about 35.3% ($n = 66$) were in 7th grade, and 36.4% ($n = 68$) were in 8th grade.

Approximately 54% of the students ($n = 100$) were born in the United States. The most commonly reported country of birth outside the United States was China at 93.7% ($n = 74$). Lastly, nearly 81% ($n = 150$) of the students reported living with both mother and father. About 10% ($n = 18$) lived with mom only; 1.1% ($n = 2$) lived with father only; and around 9% ($n = 16$) lived with mother and a stepparent or other type of living arrangement. None of the student participants reported living with a father and stepparent.

TABLE I
DESCRIPTION OF STUDENTS IN THE FINAL ANALYSES (n = 187)

Characteristics	Students	
	N	%
Age (years) (n = 177)		
10	1	0.6
11	41	23.1
12	62	35.0
13	55	31.1
14	17	9.6
15	1	0.6
Sex (n = 186)		
Female	111	59.7
Male	75	40.3
Grades		
6th	53	28.3
7th	66	35.3
8th	68	36.4
Birth in United States		
United States	100	53.5
Outside of U.S.	87	46.5
Countries of birth outside U.S.		
China	74	93.7
Hong Kong or Taiwan	3	3.8
Other	2	2.5
Living arrangements		
Mother and father	150	80.7
Mother only	18	9.7
Father only	2	1.1
Other	16	8.6

A total of 391 parents participated in the research study. Table II below provides a description of the parents in the final sample. Of the parents included in the final analyses of 187 parent-child dyads, 140 mothers (or 74.8%) and 47 fathers (or 25.1%) completed the parent questionnaire. The mean age of parents was 42.4 (SD = 5.8) years old. Around 54% (n = 95) were between the ages of 40 and 49. Around 34.7% percent (n = 61) were between 30 and 39 years old, and 11.3% (n = 20) were 50 years old or above. Mothers reported significantly younger ages than fathers with a mean age of 41.2 years old (SD = 4.84); the fathers' mean age was 45.8 (SD = 7.02) ($t = -4.89$, $df = 174$, $p < 0.0001$). The majority of parents, 67.2% (n = 135), had a high school level education or less with 26.9% (n = 54) completing 12th grade or less and another 40.3% (n = 81) having obtained a high school diploma or equivalent. Approximately 18% (n = 36) achieved some college or an associate's degree. Nearly 11% (n = 21) earned a bachelor's degree, and around 4% (n = 9) earned a graduate degree. About 45.2% (n = 90) of parents reported a household income of \$20,000 or less; another 38.7% (n = 77) reported an income between \$20,001 and \$40,000; and 16.1% (n = 32) reported an income of more than \$40,001 in the past year.

Other demographic characteristics of the parent participants include marital status. About 87.2% (n = 163) reported being married, and 10.1% (n = 19) were divorced or separated. The majority of the families in the sample, 56.5% (n = 104), had two children, and about 24.5% (n = 45) had three children. Approximately 16.9% (n = 31) of the parents reported having one child. Additionally, the majority of parents were not born in the United States (n = 172, 92.0%). Only about 8.0% (n = 15) were born in the United States. The most commonly reported country of birth outside the U.S. was China at 87.8% (n = 144). Around 7.3% (n = 12) were born in Hong Kong, and another 1.2% (n = 2) reported having been born in Taiwan.

TABLE II
DESCRIPTION OF PARENTS IN THE FINAL ANALYSES (n = 187)

Characteristics	Parents	
	N	%
Parent		
Mother	140	74.9
Father	47	25.1
Age (years) (n = 176)		
30–39	61	34.7
40–49	95	54.0
50 and above	20	11.3
Educational level (n = 185)		
12th grade or less	54	26.9
High school graduate or equivalent	81	40.3
Associate degree or some college but no degree	36	17.9
Bachelor degree	21	10.5
Graduate degree	9	4.4
Income level (n = 183)		
\$20,000 or less	90	45.2
\$20,001 to \$40,000	77	38.7
\$40,001 to \$60,000	12	6.0
\$60,000 or more	20	10.1
Marital status		
Married	163	87.2
Divorced or separated	19	10.1
Widowed or have never been married	5	2.7
Number of children (n = 184)		
Four or more	4	2.1
3	45	24.5
2	104	56.5
1	31	16.9
Birth in United States		
United States	15	8.0
Outside of U.S.	172	92.0
Countries of birth outside U.S.		
China	144	87.8
Hong Kong or Taiwan	14	8.5
Other	6	3.7

B. Setting

Data collection was conducted at two Chicago public schools and one private elementary school in Chicago's Chinatown neighborhood and Armour Square and Bridgeport community areas. Chinatown, located on Chicago's near south side, forms a unique, tightly-knit, ethnic enclave composed of primarily Chinese immigrants and their families. The neighborhood continues to be at the heart of Chinese immigrant life, and serves as a port-of-entry for new Chinese immigrants, meeting their needs for housing, a familiar culture and language, and assistance in finding work.

According to the 2010 U.S. Census, Chicago's total Asian population numbered 148,257, or 5.5% of the city's population, representing an 18% increase from 2000 (U.S. Census Bureau, 2010). About 14% of Chicago's total Asian population, or nearly 21,000, lives in Chinatown located in Armour Square and the neighboring community of Bridgeport (Illinois, Action for Children, 2011). Table III summarizes key demographic characteristics of the population in Armour Square (Chinatown) and Bridgeport.

Armour Square, located to the east of Bridgeport, has slightly more than 13,000 residents (Illinois Action for Children, 2011). In 2000, its population was primarily Asian at 61%. More than 31% of the total population, and 38% of the children lived below the poverty line. Approximately, 53% of the population in Armour Square was female, and around half was between the ages of 25 and 64. Another 15% of the population was between the ages of 5 and 17 (Bocskay et al., 2007). The median income level for Armour Square in 2000 was \$22,756. Nearly 56% percent of its population earned a high school degree (Bocskay et al., 2007).

Bridgeport, west of Armour Square, is one of the most diverse communities in Chicago. In 2010, it was home to approximately 32,000 people (Illinois Action for Children, 2011). About 26% of its population was Asian; 41% was White; 30% was Hispanic; and 1% was African American in 2000. More than 18% of all residents, and 27% of the children lived below the poverty line. A little over half the population fell

between the ages of 25 and 64, and 17.8% was between 5 and 17. In 2000, Bridgeport's median income was \$35,535. Around 64.8% of the population earned a high school degree (Bocskay et al., 2007).

TABLE III
POPULATION DEMOGRAPHICS OF ARMOUR SQUARE (CHINATOWN) AND BRIDGEPORT

Characteristics	Armour Square		Bridgeport	
	n	%	n	%
Total Population^a	13,391		31,977	
Gender^b				
Female	6,339	52.7	16,948	50.3
Male	5,693	47.3	16,746	49.7
Race/Ethnicity^b				
Asian	7,305	60.7	8,808	26.1
Black	2,046	17.0	354	1.1
Hispanic	448	3.7	10,165	30.2
White	2,062	17.1	13,819	41.0
Age (years)^b				
0–5	682	5.7	2,471	7.3
5–17	1,830	15.2	6,010	17.8
18–24	1,009	8.4	3,573	10.6
25–64	6,189	51.4	18,025	53.5
65+	2,322	19.3	3,615	10.7
Socioeconomic Indices^b				
High school graduate	4,772	55.9	13,951	64.8
Below poverty level	3,746	31.1	6,085	18.1
Childhood poverty	942	37.6	2,300	27.4
Median Income level**	\$22,756		\$35,535	

^a Source: U.S. Census 2010.

^b Source: U.S. Census 2000.

According to Chicago Public Schools, Healy Elementary School located in Bridgeport and Haines Elementary School located in Armour Square are public schools that have large student populations of 1274 and 668 students from pre-kindergarten through 8th grades respectively. As of 2009–2010, the largest racial/ethnic minority group at both schools was Asian. At Healy, most of the student population was Asian (around 60%) followed by Hispanic students at 23.5%. At Haines, Asian students made up of 91.6% of the student population, and Blacks comprised of about 7.3%. Among the students at Haines Elementary School, 95.5% of the students were low income. At Healy, 96.2% were considered low income (www.cps.edu). St. Therese Chinese Catholic School is a private elementary school located in the heart of Chinatown, and the majority of its student population is Asian. Of the total current student population of 287, about 75.6% ($n = 217$) is Asian. About 5% are White; 3% are Hispanic; 2% are African American; and the remaining students, about 13.6% ($n = 39$), self-identify as being of multi-racial heritage.

C. Power Analysis

A similar study on the relationship between ICD and delinquent behaviors or depression among adolescents indicates that a sample of 150–160 parent-child dyads would be adequate to detect correlations of 0.26 between variables (Choi et al., 2008). For this research study, a sample size of 160 parent-child dyads was estimated to have 80% power to detect correlations of 0.22 or more using a two-tailed test with $\alpha = 0.05$.

D. Procedures

Data collection began September 6th and ended November 16th of 2011. A meeting occurred with the principals from St. Therese Chinese Catholic School, and Haines and Healy Elementary Schools on August 18, 2011 to discuss the implementation process of the research study prior to its start. Throughout the first few weeks of September, presentations were made to 6th, 7th, and 8th grade teachers at the three

schools to provide a purpose and overview of the study, timeline, and an explanation of their involvement in the administrative procedures. Procedures and dates for administering the student and parent questionnaires varied slightly among the schools due to their differing circumstances.

1. Parent questionnaire

Parents of students enrolled in the 6th through 8th grades in the fall of 2011 at each elementary school were recruited to participate in the research study. Only one parent of each student that was most involved in the daily activities of his/her child was asked to complete a self-administered questionnaire. Five points of contact were made through letters, reminder postcards, and other materials sent home.

The first point of contact consisted of prenotification packets that were mailed home by the schools during the first two weeks of September. A prenotice letter describing the purpose and content of the study served to notify parents of the administration of the student questionnaire at school and arrival of the parent questionnaire to be sent home through their child in the coming weeks. It also included information on the selection criteria, relevance of the study to respondents and the community, and the incentive to participate. Parents were given a \$20 Target gift card for completing the survey. Participants were also eligible to enter a drawing for a raffle prize of an Amazon Kindle or a \$115 gift card to Jewel. One raffle prize was available for each school. Other materials in this packet included a parental permission form that was to be completed and returned to the child's school if the parent gave active permission allowing their student to participate in the study. Lastly, a colorful recruitment flier summarized the study, highlighted the incentives, and provided brief instructions for involvement.

Packets in large yellow manila envelopes distributed by teachers during homeroom or other classroom periods and sent home through students was the second point of contact, which occurred at the end of September to mid-October. This packet included a more detailed cover letter that addressed the study's purpose, selection criteria, relevance, confidentiality procedures, and incentive to participate after a

completed questionnaire had been returned. The parent questionnaire was also provided for the first time to parents. Along with the questionnaire, parents were given an informed consent document and parent contact form. The contact form asked for their phone number, email address, and home address to allow for the incentive to be mailed to respondents, as well as for follow up if needed. Included in both the letter and the instructions for completing the questionnaire, directions were provided that requested for the parent most responsible for the decisions regarding the children in the household to complete the survey. Respondents completed the parent questionnaires and the informed consent and parent contact forms, and returned them in the same yellow manila envelopes to the school principals or teachers of their students' schools. These packets were collected by the principal investigator and her research assistants at the end of the week.

Recruitment packets with the questionnaire, similar to the first packets sent home, were again distributed to the students at each school about a week to two weeks later in the month of October. Only those parents who had not yet returned their completed questionnaires to school were given a packet. Following this third recruitment effort, a postcard was then mailed home about a week later between mid to the end of October to all families in the 6th through 8th grades in the event that a parent had not yet obtained a questionnaire from their child. The postcard served to remind parents of the importance of the study and the incentive they would receive after completing the survey. Near mid-November, the fifth point of contact was made one to two weeks after the postcards were mailed home. Questionnaires were again sent home a third time through the students whose parents had not yet responded. All letters from the three recruitment packets varied slightly in its content in urging parents to participate. Lastly, tables were set up during report card day pickup on November 16th at both Haines and Healy elementary schools for one last effort to recruit more parents in the research study.

2. Student Questionnaire

Administration of the survey to 6th, 7th, and 8th grade students occurred in the classrooms during homeroom or physical education periods at the schools in the months of September and October. Students who were eligible to participate in the research study first received active permission by their parents. Those students who had not been given permission by their parents participated in other activities while the surveys were being administered.

The principal investigator administered the self-report questionnaires to the students during their gym periods at Haines Elementary School. Teachers at Healy Elementary School and St. Therese Chinese Catholic School administered the student survey in classrooms. Only those students whose parents had returned the parental permission form were read the student informed assent form with the instructions prior to completing the questionnaire. Students were assured that their responses would be kept strictly confidential. Students who provided written assent by signing the student informed assent form to participate were given a survey. Students absent from school at the time of data collection were asked to complete the questionnaire at another point-of-time in a period of the following two weeks. Students who completed the questionnaire received a small token incentive of a highlighter. Finally, during report card day pickup at Haines and Healy elementary schools, a table was set up at each to recruit more students to complete the questionnaires.

E. Human Subjects Consideration

Approval from the Institutional Review Board (IRB) of the University of Illinois at Chicago was obtained in May 2011 for the study procedures of this research study. Each of the principals at St. Therese Chinese Catholic School, Haines Elementary School, and Healy Elementary School were informed prior to obtaining IRB approval through individual face-to-face meetings to ask for permission to collect data in their schools, and subsequently provided letters of support for the IRB application.

The informed consent document provided to parents included an ethical commitment of the researcher to maintain the confidentiality of respondents' answers, briefly described the procedures to protect respondents from being identified and linked to individually completed surveys, and informed respondents that the survey is voluntary. Parents signed the informed consent form if they wished to be involved in the study. More detailed information on the procedures to protect confidentiality was made available upon request.

For students, the consent procedure consisted of both active parental permission and written informed assent. Accordingly, all parents at participating schools were informed through the prenotice letter mentioned above of the date and purpose of the study in advance to the scheduled administration of the questionnaire. Parents were asked to return the parental permission form that was provided with the letter to their students' schools if they allowed their child to participate in the study. The active assent allowed the students themselves to actively refuse to participate after they had been informed of the study, and assured that their answers are strictly confidential. A signature on the student assent form was required before completing the questionnaire. Students could choose to refuse or discontinue participation at any time.

F. Measurement

The relevant constructs from the macro-theoretical conceptual framework that were measured for this research study include *behavioral acculturation*, *values acculturation*, *parenting practices*, *parenting style*, *parent-child bonding*, *ICD (intergenerational conflict)*, and *risk for adolescent alcohol use*. Table IV provides a list of the specific theoretical constructs measured in each questionnaire, parent and student, for the purposes of this research study.

The primary purpose of the student questionnaire was to assess the relationships among perceived parent-child bonding and ICD with self-reported risk for adolescent alcohol use. The parent survey, on the other hand, aimed to understand the cultural context that influences the parenting style and

practices that promote parent-child bonding and/or ICD. Therefore, while most constructs were measured in both questionnaires due to the dyad nature of the sampling unit, only students were asked to self-report their alcohol-related attitude, age of initiation, drinking behaviors, and intentions to use alcohol.

TABLE IV
MEASURED THEORETICAL CONSTRUCTS ON PARENT AND STUDENT QUESTIONNAIRES

Parent Survey Constructs	Child (Student) Survey Constructs
1. Behavioral Acculturation	1. Behavioral Acculturation
2. Values Acculturation	2. Values Acculturation
a. Asian Values	a. Asian Values
b. Individualism and Collectivism	b. Individualism and Collectivism
3. Parenting Practices	3. Parenting Practices
4. Parenting Styles (including Guan)	4. Parenting Styles (including Guan)
5. Parent-Child Bonding	5. Parent-Child Bonding
6. Intergenerational Cultural Dissonance	6. Intergenerational Cultural Dissonance
	7. Risk for Adolescent Alcohol Use

The scales used to measure each of the constructs above were chosen for their reported high validity and internal reliability in past research studies. However, during the pretesting of the questionnaires, students and parents were asked to provide feedback on the understandability of the instructions, clearness of wording, appropriateness of response choices, comprehension of questions and sections, length of the survey, and ease of navigating from question to question. Changes were made to the scales to improve comprehension of items and reflect respondents' suggestions and recommendations, which are described below for each measure.

1. Behavioral acculturation

Behavioral acculturation was measured using the *Kviz-Choi Acculturation Scale*, which consists of a Within-Group (Chinese) subscale and an Outside-Group (American) subscale (Choi, 2006). Questions on both subscales are similar. A higher score on one subscale over the other indicates the degree of identifying more to that culture. In a study conducted by Choi (2006), the Cronbach's alphas reported for the Korean subscale was 0.71, and 0.89 for the American subscale among a group of Korean American immigrant women in Chicago indicating high internal reliabilities. Since the questions on the Within-Group subscale are general to any culture, the *Kviz-Choi Acculturation Scale* is applicable to both Chinese American adolescents and their parents. Nine items on the subscale, Within-Group (Outside-Group), included: "I like to listen to Chinese (American) music," "I attend social functions with Chinese (American) people," "I eat traditional Chinese (American) foods," "I read Chinese (American) magazines or newspapers," "I speak a Chinese language (English) with members of my family," "I speak a Chinese language (English) with my friends," "I have acquaintances with people who are Chinese (American)," "I feel accepted by people who are Chinese (American)," and "I am totally comfortable with people who are Chinese (American)".

Changes were made to two words on the student's scale so that the terms "social functions" and "acquaintances" were changed to "parties" and "friends" respectively. The two items on the student survey were then revised to: "I attend parties with Chinese (American) people" and "I have friends who are Chinese (American)." Items were rated on a 5-point scale with the following response choices: "never," "rarely," "sometimes," "often," and "almost always."

2. Asian values scale

Values acculturation or the degree of adherence to Asian cultural values was assessed using four items from the AVS (Kim et al., 1999) in the final analyses. The AVS was found to be internally

consistent with Cronbach's alphas of 0.81 and 0.82 for two separate studies, and a test-retest reliability of 0.83 among Asian American university students (Kim et al., 1999; Kim et al., 2001).

In another research study that applied the AVS to examine the relationship between values acculturation and reports of intergenerational family conflict among Korean American and Chinese American college students, the reported coefficient alpha was 0.87 (Tsai-Chae & Nagata, 2008). The study further explored the associations between specific AVS dimensions and perceived parent-child conflict. An exploratory factor analysis was conducted, which identified a total of five dimensions. They included the following: Educational/Career Issues in the Family, Conforming to Family Norms, Emotional Regulation, Modesty and Consideration for Others, and Respecting Elders (2008).

During the pilot test of the student and parent questionnaires that included the full original 36-item AVS, concerns were expressed by student and parent respondents about the length of the instruments. For each of the five dimensions on the AVS as revealed by Tsai-Chae and Nagata (2008), the two items with the highest loadings were selected for the final scale used in this study. The original AVS scale was subsequently reduced to include only those items that had the highest factor loadings. Loadings ranged from 0.51 to 0.82 (Tsai-Chae & Nagata, 2008). Furthermore, changes were made to the phrasing of items to clarify and simplify them while maintaining their intended meaning. Table V shows the ten original items chosen, their respective factor loadings, and the revised final items that comprised the AVS on the student and parent questionnaires. Items were worded the same on both surveys.

TABLE V
ASIAN VALUES SCALE DIMENSIONS, ORIGINAL ITEMS, FACTOR LOADINGS, AND REVISED ITEMS
SELECTED FOR STUDENT AND PARENT QUESTIONNAIRES^a

Original Items ^b	Loading	Revised Items
Dimension 1: Education/Career Issues in the Family		
1. Occupational failure does not bring shame to the family	0.79	1. Failure in your future job or career will not bring shame to the family
2. Educational and career achievements need not be one's top priority.	0.74	2. Educational and career achievements are not the most important to achieve in life
Dimension 2: Conforming to Family Norms		
3. One should avoid bringing displeasure to one's ancestors	0.74	3. People should avoid making their ancestors unhappy
4. One should not make waves	0.66	4. People should not cause trouble
Dimension 3: Emotional Regulation		
5. One's family need not be the main source of trust and dependence	0.70	5. Family is not the main source of trust and dependence
6. One need not control one's expression of emotions	0.66	6. People should not control the expressions of their emotions
Dimension 4: Modesty and Consideration for Others		
7. Modesty is an important quality for a person	0.70	7. Modesty is an important quality to have
8. One should be humble and modest	0.67	8. People should be humble and modest
Dimension 5: Respecting Elders		
9. Younger persons should be able to confront their elders	0.82	9. Young people should be able to confront their elders
10. Elders may not have more wisdom than younger persons	0.66	10. Elders may not have more wisdom than younger people

^a Source of original items and factor loadings: Tsai-Chae and Nagata, 2008.

^b Items 1,2,5,6,9,10 were reverse coded.

Response choices were coded on a 5-point scale: “strongly disagree,” “disagree,” “neither agree/disagree,” “agree,” and “strongly agree.” Similar to the original AVS, the items above: 1, 2, 5, 6, 9, and 10 were reverse scored. A higher score represented greater adherence to traditional Asian cultural values and a lesser degree of acculturation to Western values (Tsai-Chae & Nagata, 2008).

3. Individualism/collectivism orientations

Measurement of values that represent individualistic and collectivistic orientations was included in this study to understand the differences regarding this significant aspect between Eastern and Western cultures. The scale that was chosen, Measurement of Horizontal and Vertical Individualism and Collectivism (MHVIC), was developed by H.C. Triandis, which reported an internal reliability of Cronbach’s alpha as high as 0.82 (Triandis, 1996). In a second research study, MHVIC proved the most psychometrically sound among three scales for measuring individualistic and collectivistic orientation constructs at the individual level (Paquet & Kline, 2009).

Paquet and Kline (2009) also conducted confirmatory factor analyses to determine the underlying factor structures for the three instruments they evaluated. Due to the concerns that were expressed by student and parent respondents regarding the length of the questionnaires during the pilot test, the original 28-item MHVIC scale was reduced to include only those items that had the highest factor loadings on its four separate dimensions: Vertical Individualism, Horizontal Individualism, Vertical Collectivism, and Horizontal Collectivism. Loadings ranged from 0.27 to 0.81 (Paquet & Kline, 2009). For each of the four dimensions, the first three items with the highest loadings were selected for the final scale used in this study. Table VI displays the twelve original items chosen, their respective factor loadings, and the revised final items that comprised the MHVIC scale on the parent questionnaire.

TABLE VI
MHVIC SCALE DIMENSIONS, ORIGINAL ITEMS, FACTOR LOADINGS, AND REVISED ITEMS
SELECTED FOR STUDENT AND PARENT QUESTIONNAIRES^a

Original Items	Loading	Revised Items
Dimension 1: Vertical Individualism		
1. Without competition, it is not possible to have a good society	0.53	1. Without competition, it is not possible to have a good society
2. Winning is everything	0.71	2. Winning is everything
3. I enjoy working in situations involving competition with others	0.67	3. I enjoy working in situations involving competition with others
Dimension 2: Horizontal Individualism		
4. Being a unique individual is important to me	0.68	4. Being a unique individual is important to me
5. I am a unique person, separate from others	0.75	5. I am a unique person, separate from others
6. I enjoy being unique and different from others	0.81	6. I enjoy being unique and different from others
Dimension 3: Vertical Collectivism		
7. I would do what would please my family, even if I detested that activity	0.57	7. I would do what would please my family even if I detested that activity
8. We should keep our aging parents with us at home	0.51	8. Aging parents should live with their children in their home
9. I would sacrifice an activity that I enjoy very much if my family did not approve of it	0.64	9. I would sacrifice an activity that I enjoy very much if my family did not approve of it
Dimension 4: Horizontal Collectivism		
10. The well-being of my coworkers is important to me	0.46	10. The well-being of my coworkers is important to me
11. It is important to me to maintain harmony within my group	0.67	11. It is important to me to maintain harmony within my group
12. It is important to consult close friends and get their ideas before making a decision	0.47	12. It is important to discuss with close friends and get their ideas before making a decision

^a Source of original items and factor loadings: Paquet and Kline, 2009.

Item 8 above was rewritten to consider those respondents for which this question did not apply such as students and those whose parents were no longer with them. Slight changes were made to the wording of items to achieve greater clarity. On the student questionnaire, the term “detested” was changed to “hated.” Items were also revised on the student survey to better reflect the circumstances of the adolescents. For example, item 10 was changed to state, “the happiness of my peers is important to me.” Item 11 was rewritten to express, “it is important to me to keep the peace within my group.” Response choices for all items on this scale for both parent and child questionnaires were: “strongly disagree,” “disagree,” “neither agree/disagree,” “agree,” and “strongly agree.” A higher score from items 1 through 6 above indicated a greater individualistic orientation, and a higher score from items 7 through 12 revealed a stronger collectivistic orientation.

4. Parenting practices

Parenting practices targeted by SDM to promote parent-child bonding were assessed by both the student and parent questionnaires. The processes practiced by parents to socialize their children as hypothesized by SDM, encompass: (1) opportunities for family involvement in activities and interactions; (2) degree of involvement and interaction; and (3) reinforcements for this involvement and interaction. These items have been tested through a series of studies that examined the SDM as an explanatory framework for the progression of alcohol use and other problem behaviors among various samples of adolescents (Catalano et al., 1999; Brown et al., 2005; Choi et al., 2005; Fleming et al., 2002). Items used to measure this construct were obtained directly from one of the authors of these studies (Fleming, 2011, personal communication).

Due to the length of the questionnaires, the scale used in this study included only ten items from 21 total questions applied in a previous study that measured the SDM indicators for: Opportunities for Family Involvement, Child Involvement in Family Activities, and Rewards for Family Involvement (Fleming et al., 2002). Questions that were found repetitive during the pretesting were eliminated to incorporate

suggestions made by respondents. Unlike the past series of studies that tested this framework using these indicators, all questions were asked of both parent and child.

Three items measured Opportunities for Family Involvement. The original item, “I find ways to keep my child involved with family decisions about fun and work activities, in a manner appropriate to his/her age” was rewritten into two statements to remove the double-barreled question: “I involve my child with family decisions about fun activities” and “I involve my child with family decisions about work activities.” The third item for this indicator was, “I find ways to involve my child with family activities.” This indicator merged the two original items: “I find ways to keep my child involved with fun activities in our family” and “I find ways to keep my child involved in family work activities such as chores.”

For Child Involvement in Family Activities, three items were used to measure this indicator. “How often do you (or your spouse/partner) play sports, hobbies, or games with (STUDENT)?” was changed to “I play sports, hobbies, or games with my child.” The second item, “I am available in the evenings to spend with my child,” was originally stated as, “How many evenings a week are you (or your spouse/partner) available to spend time with (STUDENT)?” Lastly, the third item which originally asked, “How often do you or your (spouse/partner) take your child to the library” was changed to “I go with my child to the library.”

Four items were used to assess the third indicator, Rewards for Family Involvement. The original item, “When your child completes jobs around the house, how often do you praise (STUDENT) or give (him/her) rewards, such as privileges or money,” was split into two sentences to separate performing two distinct approaches toward the child of praising or rewarding for his/her good behavior. Therefore, they were rewritten to state: “I praise my child such as when he/she helps out around the house,” and “I give my child rewards such as privileges and money when he/she helps out around the house.” Similarly, the original item, “How often do you praise or reward your child for doing well in school?” was changed to: “I praise my child when he/she does well in school” and “I give my child rewards such as privileges and money when he/she does well in school” for consistency.

These same items have been included in the student questionnaire, but reworded to reflect child's report on how often these parenting practices occur so that terms such as "I" were changed to "my parents" on the scale. An example of an item to reflect these changes include, "My parents involve me with the family decisions about fun activities." Response choices for all items on this scale for both parent and child questionnaires were: "never," "rarely," "sometimes," "often," and "almost always." A higher score overall on this scale indicated greater exercise of these parenting practices.

5. Parenting style

The Parenting Style scale used in this study was developed by Lamborn and colleagues in 1991. It assesses four parenting styles—authoritative, authoritarian, indulgent (permissive), and neglectful, and consists of the two subscales, Parental Warmth/Involvement and Parental Strictness/Supervision. Lamborn and colleagues constructed this measure using the four-fold typology of parenting style as identified by Baumind (1971), and on Maccoby and Martin's (1983) expansion of her work (1991). The four parenting styles represent the interactions between the two dimensions, Parental Warmth/Involvement and Parental Strictness/Supervision, as illustrated in Figure 3.

Authoritative parents are responsive, warm, supportive and encouraging, and set clear standards for their children's behavior. On this scale, they would score high on both Parental Warmth/Involvement and Parental Strictness/Supervision. Authoritarian parents are strict and exert more control and guidance, but lack warmth; and therefore, would score high on Parental Strictness/Supervision, but lower on Parental Warmth/Involvement than authoritative parents. Permissive or indulgent parents are responsive and warm, but practice less supervision than authoritative parents. Neglectful parents practice neither monitoring and guidance nor are they involved, and therefore, would score low on both dimensions of Parenting Style. This scale has been applied in previous studies examining the relationship between parenting style and

substance use among adolescents, and have reported high reliability coefficients for both Parental Warmth/Involvement and Parental Strictness/Supervision that have ranged from 0.72 to 0.75 and 0.76 to 0.77 respectively (Adalbjarnardottir & Hafsteinsson, 2001; Lamborn et al., 1991).

Strictness/ Supervision	Warmth/Involvement		
		High	Low
	High	Authoritative	Authoritarian
	Low	Indulgent (permissive)	Neglectful

Figure 3. Illustration of four parenting styles categorized on two dimensions of the Parenting Style scale, Parental Warmth/Involvement and Parental Strictness/Supervision.

Similar to the original scale, this research study will assess the child's perceived parenting style of his/her parents in the final data analyses. However, changes were made to the original scale with regard to the wording of items to achieve greater clarity and avoid double-barreled questions. Additionally, the agree-disagree response choices were changed to be item specific, and to code on a 5-point scale for scoring purposes. Due to the length of the student survey, questions that asked about father and mother separately on the original scale were combined on the questionnaire to ask students about their parents together.

There were ten items that reflected Parental Warmth/Involvement, which included: “I can count on my parents to help me out if I have some kind of problem”; “My parents push me to do the best that I can do”; “My parents push me to think independently”; “My parents help me with my schoolwork if there is something I do not understand”; and “When my parents want me to do something, they explain why”; and “When I get a poor grade in school, when my parents push me to try harder.” The seventh item, “When you get a good grade in school, how often do your parents or guardians praise you” had been changed to “When I get a good grade in school, my parents express their approval of me.” During the pretest of the questionnaires, several students expressed difficulty understanding of the word “praise” so that it was revised to “express their approval.” The next two items on the scale were, “My parents spend time just talking to me” and “My family does something fun together.” Lastly, the Parental Warmth/Involvement subscale asked, “Which of the following statements best describes how many of your friends do your parents know?” Response choices for this question were: “My parents don’t know any of my friends”; “My parents know a few of my friends”; “My parents know some of my friends”; “My parents know a lot of my friends”; “My parents know all of my friends.” Except for this last item, response choices for all other items were: “never,” “rarely,” “sometimes,” “often,” and “almost always.”

Five items consisted of the subscale, Parental Strictness/Supervision. The first item on the subscale originally asked students, “In a typical week, what is the latest you can stay out on school nights (Monday–Thursday)?” This was changed to, “In a typical week, what is the latest your parents usually allow you to stay out on school nights (Monday–Thursday)?” The original response categories were “not allowed out,” “before 8:00,” “8:00 to 8:59,” “9:00 to 9:59,” “10:00 to 10:59,” “11:00 or later,” and “as late as I want.” Similarly, the next question on this subscale asked, “In a typical week, what is the latest your parents usually allow you to stay out on Friday or Saturday night?” The original response choices for this item were: “before 9:00,” “9:00 to 9:59,” “10:00 to 10:59,” “11:00 to 11:59,” “12:00 to 12:59,” “1:00 to 1:59,” “after 2:00,” and “as late as I want.” From the pretest of the questionnaires, it was learned from students and their

parents that it was unnecessary to include choices that went past midnight. Therefore, the response choices for both questions mentioned above were changed to: “Not allowed out,” “Earlier than 9 PM,” “9:00 to 10:59 PM,” “11:00 PM or later,” and “As late as I want.”

The last three items on this subscale asked students how much their parents know: “Where you go at night?”; “What you do with your free time?”; and “Where you are most afternoons after school?” The response choices were: “never,” “rarely,” “sometimes,” “often,” and “almost always.” All response choices for this scale on the student questionnaire were coded on a 5-item scale to facilitate the analysis of results.

6. Guan

Guan has been defined as a parenting style specific to Chinese American parents, which indicates parental control and governance while also implying care, love, and high levels of involvement (Chao, 1994). The scale, Guan Parenting Behaviors, used for this research study was developed by Chao & Wu (2001), which has not yet been published, but is the only known scale to measure this specific parenting style. The scale was obtained from the original developers (Chao, 2011, personal communication). Similar to the construct Parenting Style described above, the final data analysis will assess students’ perceptions of their parents’ guan, a culturally-based attitude toward parenting. The original scale which contained 12 items had been reduced to 9 items on the student questionnaire.

Slight changes in wording had been made so that “me” had been changed to “you” to simplify the questions for greater clarity. For example, the item, “Has to know my friends before I can do things with them” had been rewritten to, “Have to know who your friends are before you can do things with them.” Six of the items on this scale asked students how often their parents practiced the following parenting behaviors: “Explain to you what they expect from you”; “Tell you that you must follow your expectations”; “Let you spend time with friends they think are a good influence”; “Watch your behaviors before they give you more freedom”; “Pay attention to whether or not you listen to them before they give you more freedom”; and “Tell you what they think is best for you.” One of the original items, “Continually warns me about using

drugs or having sex” was revised into two statements to remove the double-barreled question. Therefore, the last two items on the scale for guan were: “Continually warn you about using drugs” and “Continually warn you about having sex.” For all items, Response choices for this scale were coded on a 5-item scale that included: “never,” “rarely,” “sometimes,” “often,” and “almost always.” A higher score on the scale indicates a stronger perceived exercise of guan by the child of his/her parents.

7. Parent-child bonding

For this construct, the indicators that have been used to measure parent-child bonding also come from the same series of studies discussed above to assess Parenting Practices to test the SDM, which hypothesizes the relationship between parenting practices to parent-child bonding (Catalano et al., 1999; Brown et al., 2005; Choi et al., 2005; and Fleming et al., 2002). Items used in this scale were obtained directly from an author of one of these past studies (Fleming, 2011, personal communication).

The series of items were asked of both parents and students to measure the level of bonding in a parent-child dyad. Similar questions on the parent survey were also asked on the student questionnaire. However, the student survey asked students to report on their level of bonding with mothers and fathers separately on two different subscales. Therefore, the question “How often do you feel close to your mother” was repeated in the subscale for fathers to ask, “How often do you feel close to your father?” Revisions on several of the items occurred to simplify the sentences and avoid ambiguity. For example, the item, “Do you want to be the kind of person (your mother/person acting as mother)” was changed to, “How often do you want to be like your mother?”.

The five items asked students to report how often they, “feel close to your mother (father),” “want to be like your mother (father),” “get along with your mother (father),” “share your thoughts and feelings with your mother (father),” and “tell you mother (father) your problems and troubles.”

For the parent questionnaire, these same five items were rewritten to represent the parent’s perceptions on how closely bonded their child was to them. For example, one of the survey items was

restated as, “How often does your child say that he/she feels close to you.” The other items ask parents to report how often does their child, “share his/her thoughts and feelings with you,” “tell you his/her problems and troubles,” “want to be like you,” “get along with you.” Response choices for all items on this parent-child bonding scale were “never,” “rarely,” “sometimes,” “often,” and “almost always.” A score on this scale represents the strength of bonding so that the higher the score, the stronger the bond between parent and child within families.

8. Intergenerational cultural dissonance (intergenerational conflict)

In a study by Choi and colleagues (2008), the parents and children reported separately on the conflict within the family. The purpose for this was to understand if the parents’ report or the child’s report was more significant in its relationship with the child’s report of delinquent behaviors. However, in this research study, ICD will be indicated by a combined score of parent and child within dyads, as well as by child perceived conflict with his/her mother and father separately. The combined score will provide a more comprehensive understanding of the actual level of conflict that exists within a family and its relationship with the child’s risk for alcohol use.

Two scales were used to assess this construct for adolescents and their parents separately. They are called the Intergenerational Congruence in Immigrant Families—Child Scale (Ying et al., 2004), and the Intergenerational Congruence in Immigrant Families—Parent Scale (Ying & Tracy, 2004). Psychometric properties such as internal reliability and validity have been tested for both scales among samples of Chinese American parents and children. The coefficient alphas reported for the child scale and parent scale among these samples were high, and therefore used in this study. The internal reliability alphas reported for the child scale were 0.85 and 0.84 for the father and mother items respectively; and the parent scale had a coefficient alpha of 0.90 (Ying et al., 2004; Ying & Tracy, 2004).

Intergenerational cultural dissonance was measured on both the parent and child surveys to assess the level of conflict within a family. On the student survey, students were asked to rate the level of

conflict they perceived to have with their mothers and fathers separately on different subscales. All items of the original scale were used in this research study with slight wording changes made for greater clarity and simplicity. For example, the original term “demonstrate” was replaced with “show” so that one of the items became “My mother (father) and I agree on how we show our affection for each other.” A second item that was originally stated as, “My mother (father) and I agree on the aims, goals, and things believed to be important in life” was rewritten into two statements to avoid a double-barreled question. The two statements then became: “My mother (father) and I agree on the aims or goals in life” and “My mother (father) and I agree on what things are important in life.” The rest of the five items on the parent scale included, “My mother (father) and I agree on the friends that he/she makes”; “My mother (father) and I agree on the amount of time we spend together”; “My mother (father) and I generally talk things over together”; “I am satisfied with my relationship with my mother (father)”; and “My mother (father) and I agree on how I should behave.” For the last item, this statement was combined from two original items: “My mother (father) and I agree on behavior in a predominantly American setting” and “My mother (father) and I agree on behavior in a predominantly Chinese setting.” This resulted from the pretest of the questionnaire when several students expressed difficulties in determining what settings were considered predominantly American or Chinese.

For the Intergenerational Congruence in Immigrant Families—Parent Scale, the items were similar except that they were stated from the parent’s perspective. Examples of this are: “My child and I agree on the aims or goals in life” and “I am satisfied with my relationship with my child.”

The original item response choices also coded on a 5-point scale. However, they were “strongly disagree,” “somewhat disagree,” “neither agree nor disagree,” “somewhat agree” and “strongly agree.” However, response choices for this scale were changed, but still coded on a 5-point scale: “strongly disagree,” “disagree,” “agree,” “strongly agree,” and “don’t know.” “Don’t know” replaced “neither agree nor disagree” to provide a more meaningful response, and to avoid forcing respondents from having to choose.

The higher the score on the scale indicates greater intergenerational congruence and less conflict within the parent-child relationship.

9. Risk for alcohol use

Several questions together measured risk for adolescent alcohol use by asking students about their attitude toward alcohol, age of initiation for consuming alcohol, alcohol use behaviors, and intentions to use alcohol in the future. Questions included: “In general, do you think it is OK for someone your age to drink alcohol?”; “Have you ever had a drink of alcohol, more than a few sips, without your parents’ permission?”; “How old were you when you first tried more than a few sips of an alcoholic beverage without your parents’ permission?”; “In the past 30 days, on how many days did you have at least one drink of alcohol without your parents’ permission?”; “Have you ever been drunk from drinking alcohol?”; “In the past 30 days, on how many days have you been drunk on alcohol?”; and “In the next 12 months, how likely will you drink beer, wine, wine coolers, or other liquor?”

10. Demographic information

Demographic information was collected from both students and parent participants. For students, information was gathered to include age, sex, grade, country of birth, age of immigration to the United States if not born here, and race/ethnicity. Other information asked the countries of birth for mom and dad separately. Lastly, students were asked to report their living situation such as if they lived with both parents, mother only, father only, mother and stepparent, and father and stepparent.

Parents were asked for information that included: race/ethnicity, partner’s race/ethnicity, age, marital/partner status, country of birth, number of years in the United States, generational status, educational attainment, and household income. A question was included to ask if the respondent was the mother, father, or other guardian of the student; and if he/she filled out the survey with his/her spouse or

partner. Other questions asked for the number of children in the family, as well as for the composition of the household to determine if the grandparents or other extended members of the family live at the same residence.

G. Data Analysis

1. Data management

The accuracy of the dataset was first validated by randomly drawing 10%–12% of the data records from a total of 753 records to be checked for errors. A total of 90 cases were checked. Each error and its correction were recorded to determine the accuracy of the dataset. The calculation of the error rate was based on the following formula: $\text{Error rate} = \text{number of wrong items} / (\text{number of cases} * \text{total number of items for each case}) * 100\%$. The allowable error rate for the data was less than 1%. There were a total of 290 items for each record, and 23 errors found. The total error rate for the dataset was $23 / (90 * 290) * 100\% = 0.09\%$.

Secondly, the dataset was examined for outliers; an outlier was defined as a measurement error that occurred from being outside of the pre-set scale range (minimum and maximum levels) for each item. It is markedly different from the scores of the other cases in the sample. To check for measurement error outliers, it was first verified that the entered values were within the expected range for each corresponding response choice within the dataset. Only a few outliers were found and corrected. For unusual or aberrant responses, such as birth years reported for parents to have occurred in 1997 and 1991, the original surveys were rechecked to verify that the correct values were entered in the dataset. In a few cases, the outliers were investigated further by contacting respondents to ask for or confirm their responses to the corresponding items on the survey.

Preparation of the data for the final analyses also included merging the student and parent reports from within a family to create another dataset that consisted of only parent-child dyads. Only those students

who self-identified on the student survey as Chinese American or mixed Chinese American heritage were included in the final sample along with his/her parent. Lastly, cases with patterns of missing data were excluded, as well as those with missing values for the means on measured constructs that were relevant to this research study. The final sample used for the analyses included 187 parent-child dyads.

2. Preparation of scales

Scales that were used to measure ICD and Asian values involved reverse coding items. As described above, the Intergenerational Congruence in Immigrant Families scales was used to measure the level of conflict within families. A higher the score, however, indicated a higher congruence between parent and child, and a lesser degree of conflict. In order to assess clear and direct relationships between ICD and its outcomes or the causes for conflict, all items on the scale were reverse coded for the final data analyses. Similarly, six items out of ten were reverse coded on the revised AVS as the direction for all items remained the same on the surveys as the original scale (Kim et al., 1999).

Next, to define the four parenting styles using the same approach as the original developers of this scale (Lamborn et al., 1991), the sample was dichotomized on each of its dimensions, Parental Warmth/Involvement and Parental Strictness/Supervision. Those respondents that scored in the upper half or above the median on both dimensions perceived the parenting style to be authoritative. Authoritarian parenting style consisted of a score above the median value on Parental Strictness/Supervision, but a score lower than the median value on Parental Warmth/Involvement. On the other hand, a high score above the median on Parental Warmth/Involvement, but a low score below the median value on Parental Strictness/Supervision indicated an indulgent or permissive parenting style. The last parenting style, neglectful, consisted of scores lower than the median values on both dimensions of this scale.

3. **Preliminary analyses**

Preliminary analyses of the questionnaire data included descriptive statistics for students, mothers, and fathers, as well as t-tests, chi-square tests, analysis of variance, and correlations using SAS 9.2. Demographic characteristics were first examined and described for both students and parents independently. Separate t-tests and chi-square tests were then performed as appropriate to explore distinctions between students by sex and differences between mothers and fathers among parents on the various constructs measured in this study. Paired t-tests were conducted to examine the dissimilarities between parent and child within parent-child dyads, mother-child dyads and father-child dyads on these same constructs. T-tests and chi-square tests were used to examine the demographic characteristics that differ between students at risk for alcohol use and students not at risk. The dissimilarities between these two groups of students were also described by measured constructs. Additional analyses were performed to reveal the frequency distributions of perceived parenting styles among students at risk and not at risk, as well as among mothers and fathers in the sample. Lastly, correlations among the various measured constructs were conducted to determine if there existed multicollinearity among the variables for the multiple linear regression analyses.

4. **Internal reliability coefficients**

The internal reliability for each of the scales used to measure the constructs was assessed using Cronbach's alpha. The coefficient alphas are summarized in Table VII for both parents and students.

For the construct, Behavioral Acculturation, Cronbach's alphas for students and parents on the Kviz-Choi Acculturation Scale for the Within-Group subscale were 0.79 and 0.80 respectively. For the Outside-Group subscale, the reliability coefficients were 0.85 for students and 0.91 for parents. The internal reliability of the Kviz-Choi Acculturation Scale was therefore high for both groups of respondents.

The reported Cronbach's alphas for the ten items on the AVS were 0.31 for students and 0.38 for parents, demonstrating poor internal consistency for measuring the construct. Items that demonstrated weak correlations with the remaining items on the scale were first deleted one at a time, which did not improve the internal reliability. The correlations matrix was then examined to determine patterns among the items that correlate better with some more than others. Secondly, exploratory factor analyses were conducted, which revealed that the 4-direct coded items loaded on a single factor while the rest of the 6-reversed coded items loaded on another two separate factors from the data gathered among students. Among parents, the same 4-direct coded items loaded on two factors; the rest of the items were distributed across three factors.

Consequently, the 4-direct coded items were chosen to compose the AVS, which resulted in high coefficient alphas of 0.71 and 0.70 for parents and students respectively. Additionally, the two factors or dimensions that the 4-items loaded on from the parent responses were examined separately as specific cultural values in the final analyses. These two factors were renamed Harmony with Others and Modesty and Humility to reflect the content of their items as shown in Table VII. Both dimensions also reported high internal reliability. Harmony with Others consisted of the following two items: (1) people should avoid making their ancestors unhappy; and (2) people should not cause trouble. Modesty and Humility included: (1) modesty is an important quality to have; and (2) people should be humble and modest. Among parents, Harmony with Others had a coefficient alpha of 0.73, and Modesty and Humility had a coefficient alpha of 0.87. Among students, the corresponding Cronbach's alphas were slightly lower at 0.60 and 0.69.

With regard to the MHVIC, the internal reliability coefficients for the Individualistic Orientation and Collectivistic Orientation were high among students at 0.70 and 0.73 respectively. Among parents, the corresponding coefficients were 0.65 and 0.46. Cronbach's alphas reported for students and parents on Parenting Practices were 0.83 and 0.82. Parenting Style's coefficient alphas revealed for the students' report measured on this scale was 0.84 for Parental Warmth/Involvement and 0.58 for Parental

Strictness/Supervision. The reliability coefficient for the students' report of guan was 0.84, which indicated a high internal consistency for the scale.

There were three reliability coefficients to report for the measure on parent-child bonding, which all demonstrated high internal reliability. Cronbach's alpha for the parent's scale was 0.85; and for the student survey, they were 0.89 and 0.90 for mother and father subscales respectively. Lastly, the internal reliability for ICD was high for all three scales. The three reliability coefficients were 0.91 for the parent's scale, and 0.90 for the mother items and 0.92 for the father items on the child's scale.

TABLE VII
REPORTED RELIABILITY COEFFICIENTS FOR MEASURED CONSTRUCTS

Reliability Coefficients (α)	Parent	Child (Student)
Behavioral Acculturation		
Within Group (Enculturation)	0.80	0.79
Outside Group (Acculturation)	0.91	0.85
Asian Values	0.71	0.70
Harmony with Others	0.73	0.60
Modesty and Humility	0.87	0.69
Individualism and Collectivism	0.65	0.74
Individualistic Orientation	0.65	0.70
Collectivistic Orientation	0.46	0.73
Parenting Practices	0.82	0.83
Parenting Styles		
Parental Warmth/Involvement		0.84
Parental Strictness/Supervision		0.58
Guan		0.84
Parent-Child Bond	0.85	
Mother-Child Bond		0.89
Father-Child Bond		0.90
Intergenerational Congruence (Lack of Conflict)	0.91	
Mother-Child Congruence		0.90
Father-Child Congruence		0.92

5. Main research questions

This study will empirically examine eight relationships that are represented in the analytical model displayed in Figure 4, which has been derived from the conceptual framework. Each relationship has been labeled by their corresponding research question. An explanation of the analyses for each research question follows.

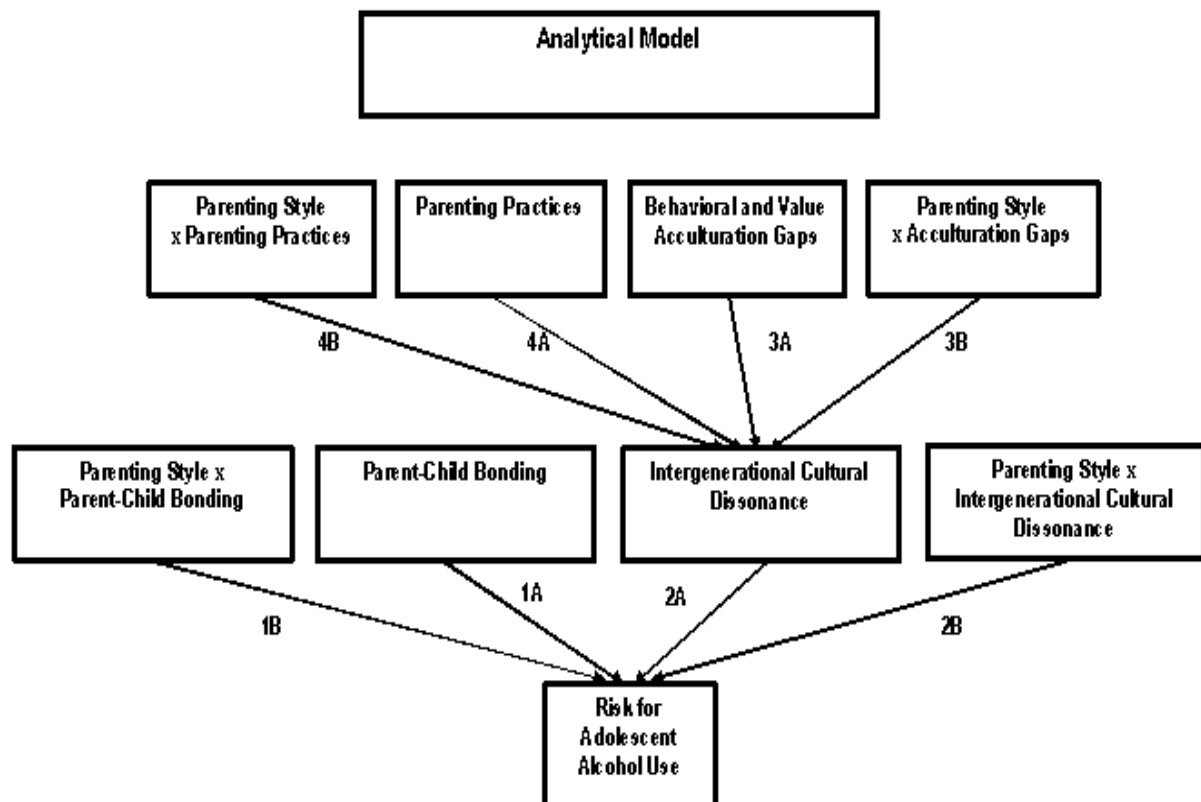


Figure 4. Analytical model illustrating the empirical relationships assessed.

Research Question 1a: How is parent-child bonding associated with risk for alcohol use among Chinese American adolescents?

Parent-child bonding was treated as a continuous variable and assessed at the level of the entire parent-child dyad. The degree of bonding was composed from a measurement taken from the participating parent (mother or father) and the child for each dyad. The average of the parent's and child's rating of parent-child bonding formed a value of bonding for the dyad. For example, if the respondent that completed the parent survey identified herself as the mother, then the child's report of bonding with the mother would be combined with the mother's score to obtain the mean value.

Several questions measured risk for adolescent alcohol use by asking students about their attitude toward alcohol, age of initiation for consuming alcohol, alcohol use behaviors, and intentions to use alcohol in the future. To assess risk for alcohol use, students who responded favorably or positively to any of the items on alcohol was categorized as having risk. A dichotomy was then used to compare those adolescents who were classified as being at risk for alcohol use to those who were classified as not at risk.

Logistic regression analyses were conducted while controlling for demographic variables to determine if parent-child bonding acted as protective factor against alcohol use among Chinese American adolescents. Additional analyses were completed to determine if the child's perceived bonding with his/her mother within mother-child dyads and perceived bonding with the father within father-child dyads proved protective against risk of alcohol use as well. In these same models, the mother's perceived bonding by child's perceived bonding with the mother and father's perceived bonding by child's perceived bonding of the father were entered as interaction terms to determine if the dyadic interaction terms accounted for significant variance beyond the main effects of the mother, father, and child scores for bonding.

Demographic variables for students and parents including gender, student's age, parent's age, parent's educational level, country of birth for both groups, and others were entered into the analyses

using forward selection and backward selection procedures. Lastly, the Hosmer & Lemeshow Goodness-of-Fit Test was used to determine the best-fitting logistic regression models for the data.

Research Question 2a: How is intergenerational cultural dissonance associated with risk for alcohol use among Chinese American adolescents?

Intergenerational cultural dissonance was treated as a continuous variable and assessed for the entire parent-child dyad. The measurement was taken of the parent (mother or father) and the corresponding measurement from child (report of mother or father) for each dyad. The average of the two values formed a value of conflict for the dyad. Similarly, risk for alcohol use was measured by the same method described in research question 1a.

Logistic regression analyses were conducted while controlling for demographic variables to determine if intergenerational conflict is a significant predictor for alcohol use among Chinese American adolescents. Similar to the analysis approach described for the research question above, additional models were run to determine if the child's perceived conflict with his/her mother within mother-child dyads and perceived conflict with the father within father-child dyads proved significant as well in serving as risk factors for alcohol use. Within the mother-child dyads, the mother's perceived conflict by child's perceived conflict was entered as an interaction term. The father's perceived conflict by child's perceived conflict was also entered as an interaction term within the father-child dyads. The purpose of these interaction terms were to determine if the dyadic interaction terms accounted for significant variance beyond the main effects of the mother, father, and child scores for ICD.

Demographic variables for students and parents including gender, student's age, parent's age, parent's educational level, country of birth for both groups, and others were entered into the analyses to using forward selection and backward selection procedures. The Hosmer and Lemeshow Goodness-of-Fit Test was used to determine the best-fitting logistic regression models for the data. Finally, a correlation

analysis was conducted to determine the strength and direction of relationships among perceived conflict and bonding between parent and child.

Research Question 3a: How is the acculturation gap associated with intergenerational cultural dissonance within Chinese American families with adolescents?

Correlation analyses were conducted to determine the strength and direction of relationships among child and parent behavioral acculturation and mean conflict within the parent-child dyad, as well as relationships among child and parent values acculturation and mean value for conflict within the dyad.

The acculturation gap consisted of a total of seven different gaps related to behaviors and values between parents and students. The behavioral acculturation gap consisted of Within Group or Chinese Group (enculturation) and Outside Group or American Group (acculturation) gaps. Measurement for values acculturation consisted of two scales, AVS and MHVIC. The AVS measured a third gap, and its two dimensions, Harmony with Others and Modesty and Humility were used to measure two specific cultural values gaps. Lastly, the two subscales of MHVIC each respectively measured a values acculturation gap for Individualistic Orientation and Collectivistic Orientation. Figure 5 provides a diagram for the all the acculturation gaps that were examined for their association with ICD within parent-child dyads in the final analyses.

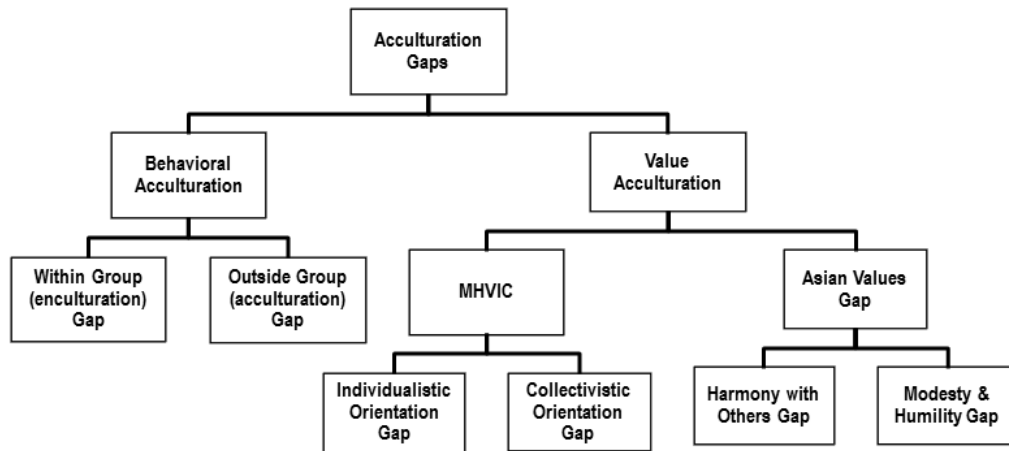


Figure 5. Diagram of acculturation gaps that were examined to determine their associations with intergenerational cultural dissonance within parent-child dyads.

The acculturation gaps were determined for each parent-child dyad within a family, and treated as continuous variables. To determine each gap, the difference was taken by subtracting the child's score from the parent's score on corresponding scales.

Additionally, three measurements for conflict served as the dependent variables for this research question and analyzed for separately. One score for conflict was the mean value for the entire parent-child dyad. The second measurement was the child's perceived level of conflict with his/her mother within mother-child dyads, and the third was the child's perceived level of conflict with the father within father-child dyads.

Consequently, multiple linear regression models were run between each acculturation gap and each of the three measurements for conflict. The intent was to determine acculturation gaps that were significant in independently predicting: (1) mean value of conflict for the entire parent-child dyad, (2) the child's perceived conflict with the mother within mother-child dyads, and (3) the child's perceived conflict with the father within father-child dyads.

Demographic variables for students and parents including gender, student's age, parent's age, parent's educational level, country of birth for both groups, and others were entered into the analyses using forward selection and backward selection procedures. The Akaike's Information Criteria was used to determine the best-fitting multiple linear regression models for the data.

Research Question 4a: How are parenting practices associated with intergenerational cultural dissonance within Chinese American families with adolescents?

The child's report of parenting practices and parent's report of parenting practices were used in the analyses of this research question, and treated as continuous variables. Parent's report by child's report was first as an interaction term and if found insignificant, parent's report of parenting practices was entered as a main effect along with the child's report within parent-child dyads. Interactions and main effects were

also examined separately for mother's report of parenting practices and father's report of parenting practices within mother-child dyads and father-child dyads respectively.

Similar to research question 3a above, three measurements for conflict served as the dependent variables for this research question and analyzed for separately. One score for conflict was the mean value for the entire parent-child dyad. The second measurement was the child's perceived level of conflict with his/her mother within mother-child dyads, and the third was the child's perceived level of conflict with the father within father-child dyads. Multiple linear regression models were run separately for each of the three measurements for conflict.

Demographic variables for students and parents including gender, student's age, parent's age, parent's educational level, country of birth for both groups, and others were entered into the analyses using forward selection and backward selection procedures. The Akaike's Information Criteria was used to determine the best-fitting multiple linear regression models for the data.

6. Moderating influence of parenting styles

In a study by Latendresse et al., results demonstrated that adolescents' reports were stronger predictors of their drinking than parents' reports in a longitudinal study (2009). Therefore, in this research study, child's perceptions of parenting styles rather than the parents' reports of their own styles were analyzed.

The four questions regarding the moderating influence of parenting style are: (1) Does parenting style moderate the relationship between parent-child bonding and risk for alcohol use among Chinese American adolescents? (2) Does parenting style moderate the relationship between ICD and risk for alcohol use among Chinese American adolescents? (3) Does parenting style moderate the relationship between acculturation gap and ICD among Chinese American families? and (4) Does parenting style moderate the relationship between parenting practices and ICD?

Parenting styles were included as interaction terms along with the main effects (parent-child bonding, ICD, acculturation gap, and parenting practices) in logistic regression and multiple linear regression analyses to determine if they moderated the relationships between the independent variables and the dependent variables. The authoritative parenting style was used as the reference due to past research studies demonstrating that it serves as the most effective style in protecting adolescents from engaging in substance use and problem behaviors (Baumrind, 1991; Hoeve et al., 2011; Adalbjarnardottir & Hafsteinsson, 2001). The other three different types of styles (authoritarian, indulgent (permissive), and neglectful) were contrasted to the reference. Additionally, analyses were conducted for the Chinese-specific parenting style, *guan*, which was separately included as a moderator similar to the other parenting styles in the models.

An example of the analyses that occurred for this set of research questions involved determining if a parenting style moderated the relationship between parent-child bonding and risk for alcohol use. It was first entered as an interaction term with the mean value for parent-child bonding of the parent-child dyad. If the interaction term was found insignificant, it was added as a main effect along with bonding in the logistic regression analyses. These steps were repeated to include parenting style as interaction terms in the models for child's perceived degree of bonding of mother within mother-child dyads and child's perceived degree of bonding with the father within father-child dyads. Analyses were run that also examined parenting styles by mother's perceived degree of bonding and father's perceived degree of bonding as interaction terms to determine if they were predictive in models for risk of alcohol use.

Demographic variables for students and parents including gender, student's age, parent's age, parent's educational level, country of birth for both groups, and others were entered into the analyses using forward selection and backward selection procedures.

VI. RESULTS

A. Descriptive Statistics of Sample

Further descriptive analyses were conducted for the final sample of 187 parent-child dyads to describe both students and parents by measured theoretical constructs. Table VIII illustrates the differences between participating students by sex, which shows two significant differences between females and males regarding behavioral acculturation. Female students scored higher on the Within Group (or Chinese Group) subscale of the Kviz-Choi Acculturation Scale at 3.6 (SD = 0.62) than male students with a reported mean score of 3.2 (SD = 0.70). Similarly, female students also scored higher on performing American behaviors or on the Outside Group subscale with a mean score of 3.6 (SD = 0.76) than the male students with a mean score of 3.4 (SD = 0.79). However, this difference did not achieve significance at a p-value of 0.21.

With regard to parent-child bonding, female students perceived a greater degree of bonding with parents than male students that proved significantly different ($p = 0.01$). The mean score for females was 3.8 (SD = 0.95) and the mean score for males was 3.4 (SD = 0.88). Female students also perceived slightly less ICD or conflict with parents (mean score = 1.8, SD = 0.58) than male students (mean score = 1.9, SD = 0.56, $p = 0.06$); and reported that their parents engaged in more frequent parenting practices that promote parent-child bonding with a mean score of 3.3 (SD = 0.74) than males with a mean score of 3.1 (SD = 0.72) although this only approached significance at $p = 0.09$.

TABLE VIII
 DESCRIPTION OF FEMALE AND MALE STUDENTS IN FINAL SAMPLE BY MEASURED
 THEORETICAL CONSTRUCTS (n = 187)

Characteristics	Female (N = 111)	Male (N = 75)	p-value
	Mean (SD)	Mean (SD)	
Behavioral Acculturation			
Within Group (enculturation)	3.6 (0.62)	3.2 (0.70)	0.002
Outside Group (acculturation)	3.6 (0.76)	3.4 (0.79)	0.21
Asian Values	3.7 (0.74)	3.7 (0.65)	0.56
Harmony with Others	3.6 (0.93)	3.8 (0.81)	0.23
Modesty and Humility	3.7 (0.78)	3.7 (0.77)	0.77
Individualistic Orientation	3.2 (0.69)	3.2 (0.67)	0.81
Collectivistic Orientation	3.6 (0.61)	3.6 (0.64)	0.49
Parenting Practices	3.3 (0.74)	3.1 (0.72)	0.09
Guan	3.6 (0.78)	3.6 (0.88)	0.90
Perceived Parent-Child Bond	3.8 (0.95)	3.4 (0.88)	0.01
Intergenerational Cultural Dissonance	1.8 (0.58)	1.9 (0.56)	0.06

Among parents in the final sample, mothers and fathers were not significantly different on most measured theoretical constructs as shown in Table IX except for degree of adherence to collectivistic orientation and perceived parent-child bonding. Fathers reported slightly higher adherence to collectivistic cultural values with a mean score of 3.6 (SD = 0.31) than mothers (mean score = 3.5, SD = 0.38). Fathers and mothers scored the same on the individualistic orientation subscale of the MHVIC. For perceived parent-child bonding, mothers reported closer perceived bonds with their children than fathers with mean scores of 3.9 (SD = 0.69) and 3.7 (SD = 0.61) respectively.

TABLE IX
 DESCRIPTION OF MOTHERS AND FATHERS IN FINAL SAMPLE BY MEASURED
 THEORETICAL CONSTRUCTS (n = 187)

Characteristics	Mother (N = 140)	Father (N = 47)	p-value
	Mean (SD)	Mean (SD)	
Behavioral Acculturation			
Within Group (enculturation)	3.9 (0.54)	3.9 (0.50)	0.81
Outside Group (acculturation)	2.9 (0.79)	2.8 (0.73)	0.49
Asian Values	3.7 (0.64)	3.8 (0.57)	0.50
Harmony with Others	3.4 (0.88)	3.5 (0.86)	0.29
Modesty and Humility	4.1 (0.68)	4.1 (0.58)	0.91
Individualistic Orientation	3.1 (0.59)	3.1 (0.51)	0.90
Collectivistic Orientation	3.5 (0.38)	3.6 (0.31)	0.02
Parenting Practices	3.4 (0.59)	3.5 (0.49)	0.49
Guan	4.1 (0.63)	4.1 (0.50)	0.97
Perceived Parent-Child Bond	3.9 (0.69)	3.7 (0.61)	0.04
Intergenerational Cultural Dissonance	1.9 (0.48)	2.0 (0.41)	0.26

B. Descriptive Statistics of Measures

Statistical analyses were also conducted to describe differences between parents and students on the same measured theoretical constructs above, as well as the frequency distributions for perceived parenting styles among the two groups. Descriptive statistics are provided for parents and students separately, and for the mean values of the dissimilarities found between parent and child within a dyad.

1. Behavioral acculturation

Parents reported higher enculturation on the Within Group (or Chinese Group) subscale of the Kviz-Choi Acculturation Scale than students with mean scores of 3.9 (SD = 0.53) and 3.5 (SD = 0.67) respectively as displayed in Table X. The mean difference for enculturation between parent and child within a dyad was 0.4 (SD = 0.83), which proved highly significant ($p < 0.0001$). Conversely, students reported greater acculturation to U.S. society than their parents. The mean score on the Outside Group (or American Group) subscale for students was 3.5 (SD = 0.77), and the mean score for parents was 2.9 (SD = 0.77). Within parent-child dyads, the mean difference was -0.6 (SD = 0.86) with a p-value of < 0.0001 .

TABLE X
COMPARISON OF BEHAVIORAL ACCULTURATION BETWEEN PARENTS AND STUDENTS,
AND DIFFERENCES IN MEANS WITHIN PARENT-CHILD DYADS (n=187)

Behavioral Acculturation	Parent Mean (SD)	Student (Child) Mean (SD)	Mean Difference (Parent-Child)	p-value paired t-test
Within Group (enculturation)	3.9 (0.53)	3.5 (0.67)	0.4 (0.83)	<0.0001
Outside Group (acculturation)	2.9 (0.77)	3.5 (0.77)	-0.6 (0.86)	<0.0001

2. Values acculturation

Values acculturation was measured by two scales separately, Asian values and MHVIC.

Asian values consisted of two dimensions Harmony with Others and Modesty and Humility. Similarly, MHVIC consisted of two subscales that measure Individualistic Orientation and Collectivistic Orientation. Table XI describes the differences between parents and students on each cultural value dimension.

Although there was no significant difference found between parents and students on the AVS total scores, there were significant dissimilarities on its dimensions. Parents scored lower than students on Harmony with Others with mean values of 3.4 (SD = 0.88) and 3.7 (SD = 0.88) respectively, but higher on Modesty and Humility with a mean score of 4.1 (SD = 0.65). The mean score for students was 3.7 (SD = 0.77). The mean differences between parents and students within dyads was -0.3 (SD = 1.22) and 0.4 (SD = 0.93) for Harmony with Others and Modesty and Humility.

Students scored slightly higher than parents on the Individualistic Orientation subscale with a mean value of 3.2 (SD = 0.68) Parents' mean score was 3.1 (SD = 0.57). Within parent-child dyads, the mean difference was -0.1 (SD = 0.78), which achieved significance at $p = 0.02$. Students also reported to adhering marginally more to collectivistic cultural values than their parents with a mean score of 3.6 (SD = 0.62). Parents' mean score on the Collectivistic Orientation subscale was 3.5 (SD = 0.37). The mean difference was -0.06 (SD = 0.75) within parent-child dyads, which also attained significance at $p = 0.03$.

TABLE XI
COMPARISON OF VALUES ACCULTURATION BETWEEN PARENTS AND STUDENTS, AND
DIFFERENCES IN MEANS WITHIN PARENT-CHILD DYADS (n = 187)

Values Acculturation	Parent Mean (SD)	Student (Child) Mean (SD)	Mean Difference (Parent-Child)	p-value paired t-test
Asian Values	3.8 (0.62)	3.7 (0.70)	0.05 (0.86)	0.41
Harmony with Others	3.4 (0.88)	3.7 (0.88)	-0.3 (1.22)	0.002
Modesty and Humility	4.1 (0.65)	3.7 (0.77)	0.4 (0.93)	<0.0001
Individualistic Orientation	3.1 (0.57)	3.2 (0.68)	-0.1 (0.78)	0.02
Collectivistic Orientation	3.5 (0.37)	3.6 (0.62)	-0.06 (0.75)	0.03

3. Parenting practices

The mean difference between parent and child reports of parenting practices within dyads was highly significant ($p = 0.0004$). The mean score for parents was 3.4 (SD = 0.56); the mean score for students was 3.2 (SD = 0.73) as shown in Table XII. Parents reported that they engaged in parenting practices that promote parent-child bonding more often than students.

TABLE XII
COMPARISON OF REPORTED PARENTING PRACTICES BETWEEN PARENTS AND STUDENTS,
AND DIFFERENCES IN MEANS WITHIN PARENT-CHILD DYADS (n=187)

Parenting Practices	Parent Mean (SD)	Student (Child) Mean (SD)	Mean Difference (Parent-Child)	p-value paired t-test
	3.4 (0.56)	3.2 (0.73)	0.2 (0.82)	0.0004

4. Parenting styles

Among parents, significant distinctions were not found between mothers and fathers in their perceived parenting styles ($\chi^2 = 0.94$). The percentages of mothers and fathers that reported practicing authoritative, authoritarian, indulgent (permissive), and neglectful parenting styles were similar as exhibited in Table XIII. Students, on the other hand, perceived their parents' parenting styles differently by sex ($\chi^2 = 0.003$). About twenty-six percent of female students reported indulgent or permissive parenting styles compared to only 5.3% among male students. Male students perceived authoritarian parenting styles more often at 28.0% than female students at around 22.5%. Similarly, more male students perceived authoritative and neglectful parenting styles than female students. Frequency distributions of student and parent reports among the four parenting styles were similar.

TABLE XIII
FREQUENCIES FOR PERCEIVED PARENTING STYLES AMONG PARENTS AND STUDENTS (n = 187)

Parenting Styles	Parent n = 187	Mother n = 140 (74.9%)	Father n = 47 (25.1%)	Chi-square
Authoritative	57 (30.5%)	44 (31.4%)	13 (27.7%)	0.94
Authoritarian	46 (24.6%)	33 (23.6%)	13 (27.7%)	
Indulgent (Permissive)	33 (17.7%)	25 (17.9%)	8 (17.0%)	
Neglectful	51 (27.3%)	38 (27.1%)	13 (27.7%)	
Parenting Styles	Student n = 186	Female n = 111 (59.7%)	Male n = 75 (40.3%)	Chi-square
Authoritative	57 (30.7%)	32 (28.8%)	25 (33.3%)	0.003
Authoritarian	46 (24.7%)	25 (22.5%)	21 (28.0%)	
Indulgent (Permissive)	33 (17.7%)	29 (26.1%)	4 (5.3%)	
Neglectful	50 (26.9%)	25 (22.5%)	25 (33.3%)	

Students and parents differed in their perceptions, however, with regard to the Chinese-specific parenting style, guan. Table XIV illustrates the mean difference between parents and children within a dyad, which was 0.5 (SD = 0.92) and significantly different at a p-value of 0.003. Parents reported engaging in more behaviors related to guan than students' reports of their parents' behaviors with mean scores of 4.1 (SD = 0.60) and 3.6 (SD = 0.82) respectively.

TABLE XIV
COMPARISON OF PERCEIVED GUAN BETWEEN PARENTS AND STUDENTS, AND DIFFERENCE
IN MEANS WITHIN PARENT-CHILD DYADS (n = 187)

	Parent Mean (SD)	Student (Child) Mean (SD)	Mean Difference (Parent-Child)	p-value paired t-test
Guan	4.1 (0.60)	3.6 (0.82)	0.5 (0.92)	<0.0001

5. Parent-child bonding

As shown in Table XV, parents generally perceived a greater degree of bonding with their children than the students' perceived bonding with their parents. Parents as a group reported a mean score of 3.9 (SD = 0.67) compared to students at 3.7 (SD = 0.93), which achieved significance at $p = 0.01$. Although not significant, among mother-child dyads, mothers reported a slightly higher degree of bonding (mean score = 3.9, SD = 0.69) with their children than the reports of children with their mothers (mean score = 3.8, SD = 0.93). Fathers reported a notably higher degree of parent-child bonding than the students' reports of bonding with their fathers within father-child dyads. The mean score for fathers was 3.7 (SD = 0.61), and the mean score for the students was 3.3 (SD = 0.88). The difference in scores achieved significance at $p = 0.01$.

TABLE XV
COMPARISON OF PERCEIVED PARENT-CHILD BONDING BETWEEN PARENTS AND STUDENTS,
AND DIFFERENCES IN MEANS WITHIN PARENT-CHILD DYADS (n = 187)

Parent-Child Bonding	Parent Mean (SD)	Student (Child) Mean (SD)	Mean Difference (Parent-Child)	p-value paired t-test
Parent-Child (n = 187)	3.9 (0.67)	3.7 (0.93)	0.2 (0.81)	0.01
Mother-Child (n = 140)	3.9 (0.69)	3.8 (0.93)	0.1 (1.11)	0.08
Father-Child (n = 47)	3.7 (0.61)	3.3 (0.88)	0.4 (0.99)	0.01

6. Intergenerational cultural dissonance (intergenerational conflict)

Mean scores among parents and students within parent-child dyads, mother-child dyads, and father-child dyads for ICD or intergenerational conflict are represented in Table XVI below. The mean differences between parents and children in their reports of the degree of perceived conflict within parent-child dyads and mother-child dyads achieved significance, whereas within father-child dyads, they did not. Among parents as a group, the mean score was 1.9 (SD = 0.46), and among students, the mean score was 1.8 (SD = 0.58). Mothers reported a slightly higher mean score for conflict at 1.9 (SD = 0.48) with their children than the students' reports of conflict with their mothers at 1.8 (SD = 0.50). Although the difference in perceived conflict between fathers and children was not significant, reported conflict was greater within father-child dyads than mother-child dyads. Fathers' mean score was 2.0 (SD = 0.41), and the mean score for students' conflict with their fathers was 1.9 (SD = 0.51). It is interesting to note, however, that the mean difference in conflict within mother-child dyads was the same as the mean difference within father-child dyads.

TABLE XVI

COMPARISON OF PERCEIVED INTERGENERATIONAL CULTURAL DISSONANCE BETWEEN PARENTS AND STUDENTS, AND DIFFERENCES IN MEANS WITHIN PARENT-CHILD DYADS (n = 187)

Intergenerational Conflict	Parent Mean (SD)	Student (Child) Mean (SD)	Mean Difference (Parent-Child)	p-value paired t-test
Parent-Child (n = 187)	1.9 (0.46)	1.8 (0.58)	0.1 (0.52)	0.01
Mother-Child (n = 140)	1.9 (0.48)	1.8 (0.50)	0.1 (0.68)	0.01
Father-Child (n = 47)	2.0 (0.41)	1.9 (0.51)	0.1 (0.69)	0.10

7. Risk for adolescent alcohol use

Descriptive analyses were conducted to describe students at risk for alcohol use versus students not at risk with regard to both demographic characteristics and measured theoretical constructs. Results are shown in Table XVII.

The age was found to be significant with a slightly higher mean age for students at risk, which was 12.7 years old (SD = 1.16) compared to 12.2 years old (SD = 0.89) for students not at risk. Other demographic characteristics were shown to be insignificant, which included gender, birth in the United States or outside the United States, and living arrangements. However, it is interesting to note that among students at risk, around 60.0% were born outside the United States in China, Hong Kong, or Taiwan. The remaining 40% were born in the United States. Moreover, around 24% of those born outside the United States were at risk compared to 14% of the U.S. born.

Table XVII also displays values for important constructs that have shown significance and describe the distinctions between students at risk and students not at risk. Students at risk reported lower adherence to Asian values and its dimensions of Harmony with Others and Modesty and Humility with mean scores of 3.5 (SD = 0.65), 3.4 (0.86), and 3.4 (SD = 0.82) respectively. For students not at risk, the mean score for Asian values was 3.8 (SD = 0.70). For Harmony with Others, it was 3.8 (SD = 0.90); and for Modesty and Humility, it was 3.8 (SD = 0.75).

Students at risk perceived that their parents engaged in less parenting practices that promote parent-child bonding with a mean score of 3.0 (SD = 0.73) compared to students not at risk with a mean score 3.3 (SD = 0.73). Students at risk also scored significantly lower on perceived guan than students not at risk with mean scores of 3.3 (0.82) and 3.7 (0.80) respectively. Moreover, the frequency distribution of students at risk for alcohol use greatly differed from students not at risk among the four parenting styles, which proved highly significant at a Chi-square value of 0.0006. Around 28.6% of students at risk reported that their parents engaged in an authoritarian parenting style compared to 23.7% of students not at risk;

and another 51.4% perceived their parents to be neglectful compared to 21.7%. Conversely, among students not at risk, a greater percentage perceived that their parents had an authoritative parenting style (33.6%) compared to students at risk (17.1%), or an indulgent/ permissive parenting style (21.0% compared to 2.9%). In summary, students at risk for alcohol use more often perceived their parents to be neglectful, and less authoritative and permissive.

Lastly, students at risk for alcohol use perceived a lesser degree of bonding and greater ICD with their parents than students not at risk. The mean score for bonding among students at risk was notably lower at 3.3 (SD = 1.01) compared to the mean score for students not at risk, which was 3.7 (SD = 0.90). Students at risk reported a mean score for conflict of 2.0 (SD = 0.65), while students not at risk reported a mean score of 1.8 (SD = 0.55). For both factors, bonding and intergenerational conflict, the dissimilarities between the two groups of students were highly significant ($p = 0.008$ and $p = 0.02$ respectively) as shown in the table below.

TABLE XVII
CHARACTERISTICS OF STUDENTS AT RISK FOR ALCOHOL USE VERSUS STUDENTS NOT AT RISK
BY DEMOGRAPHIC CHARACTERISTICS AND MEASURED CONSTRUCTS (n = 187)

Demographic Characteristics	Students at Risk n = 35	Students not at Risk n = 152	
Age Mean (S.D.)	12.7 (1.16)	12.2 (0.89)	p = 0.03
Gender			
Female	20 (57.1%)	91 (60.3%)	$\chi^2 = 0.73$
Male	15 (42.9%)	60 (39.7%)	
Born in U.S.			
United States	14 (40.0%)	86 (56.6%)	$\chi^2 = 0.08$
Outside of U.S.	21 (60.0%)	66 (43.4%)	
Measured Constructs	Mean (SD)	Mean(SD)	p-value
Asian Values	3.5 (0.65)	3.8 (0.70)	0.02
Harmony with Others	3.4 (0.86)	3.8 (0.90)	0.03
Modesty and Humility	3.5 (0.82)	3.8 (0.75)	0.08
Parenting Practices	3.0 (0.73)	3.3 (0.73)	0.06
Guan	3.3 (0.82)	3.7 (0.80)	0.005
Bonding	3.3 (1.01)	3.7 (0.90)	0.008
Intergenerational Cultural Dissonance (conflict)	2.0 (0.65)	1.8 (0.55)	0.02
Parenting Styles	Students at Risk n = 35 (18.7%)	Students not at Risk n = 52 (81.3%)	Chi-square
Authoritative	6 (17.1%)	51 (33.6%)	0.0006
Authoritarian	10 (28.6%)	36 (23.7%)	
Indulgent (Permissive)	1 (2.9%)	32 (21.0%)	
Neglectful	18 (51.4%)	33 (21.7%)	

C. Main Research Questions

As revealed in Table XVIII, a correlation analysis was conducted to determine the strength and direction of relationships among perceived conflict and bonding between parent and child within parent-child dyads. Parental perceived level of conflict was not highly correlated with the child's perceptions of conflict. Similarly, the parent's perceived degree of bonding with the child was not highly correlated with the child's perceived degree of bonding with mother or father.

However, results also indicate several important and strongly correlated relationships between the child's perceived level of conflict and his/her degree of bonding with the mother and father that achieved significance. The child's perceived level of conflict with the mother was positively correlated with the child's perceived conflict with the father ($r = 0.65$, $p < 0.0001$). Furthermore, the child's perceived degree of bonding with the mother was positively related with the child's perceived degree of bonding with the father ($r = 0.54$, $p < 0.0001$). With regard to the relationship with the mother, the child's perceived level of conflict was negatively correlated with his/her perceived degree of bonding with this parent ($r = -0.74$, $p < 0.0001$). The child's perceived level of conflict with the father was likewise negatively associated with his/her perceived degree of bonding with the father ($r = -0.72$, $p < 0.0001$). Lastly, the child's perceived level of conflict with the father was negatively related with his/her perceived degree of bonding with the mother ($r = 0.51$, $p < 0.0001$); and this relationship holds true as well for his/her perceived level of conflict with the mother and perceived degree of bonding with the father ($r = -0.042$, $p < 0.0001$).

This suggests that within families, children did not perceive their relationships with the mother and father to differ very much. Moreover, the child's perceived level of conflict with a parent was inversely associated with his/her degree of bonding with the same parent, as well as inversely correlated with the degree of bonding with the other parent. It may be implied therefore that parent-child bonding and conflict are associated, and furthermore, that the child's perceptions of bonding or conflict with one parent may influence his/her perceptions with the other parent.

TABLE XVIII
CORRELATIONS AMONG PARENT AND CHILD PERCEIVED CONFLICT AND BONDING WITHIN
PARENT-CHILD DYADS (n = 187)

Measure	1	2	3	4	5	6
1. Child Perceived Conflict with Mother	—	0.65 [‡]	0.15*	-0.74 [‡]	-0.42 [‡]	-0.17*
2. Child Perceived Conflict with Father		—	0.18*	-0.51 [‡]	-0.72 [‡]	-0.11
3. Parent Perceived Conflict with Child			—	-0.03	-0.14	-0.23***
4. Child Perceived Bonding with Mother				—	0.54 [‡]	0.06
5. Child Perceived Bonding with Father					—	0.12
6. Parent Perceived Bonding with Child						—

*p < 0.05. **p < 0.01. ***p = 0.0015. ‡ p < 0.0001.

1a: How is parent-child bonding associated with risk for alcohol use among Chinese American adolescents?

Logistic regression analyses were conducted while controlling for demographic variables to determine if parent-child bonding, child's perceived bonding with the mother, and child's perceived bonding with the father served as protective factors against alcohol use among Chinese American adolescents.

Results indicate that the mean value for bonding within a parent-child dyad, which consisted of the average of the parent's and child's rating of parent-child bonding was insignificant. The child's perceived degree of bonding with the father within father-child dyads was also not significantly associated with risk for alcohol use. However, the child's perceived degree of bonding was significant within mother-child dyads. The child's report of bonding with the mother decreased the odds for alcohol use (O.R. = 0.56; 95% C.I.: 0.38, 0.85; p = 0.006) as shown in Table XIX when holding the other predictor variable constant. The second predictor indicated that the child's birth outside of the United States resulted in a greater likelihood

that Chinese American adolescents engaged in alcohol use (O.R. = 2.15; 95% C.I.: 0.98, 4.69; $p = 0.06$).

The Hosmer and Lemeshow Goodness-of-Fit Test resulted in a p -value of 0.60 ($\chi^2 = 5.53$, d.f. = 7),

indicating that the model was a good fit for the data.

TABLE XIX
LOGISTIC REGRESSION MODEL FOR RISK OF ALCOHOL USE BY BONDING
WITHIN MOTHER-CHILD DYADS (n = 140)

Mother-Child Dyads (n=140)				
Variable	β	S.E.	Adjusted O.R. (95%C.I.)	p-value
Risk for Alcohol Use				
Child's Report of Bonding	-0.57	0.21	0.56 (0.38, 0.85)	0.006
Child Born Outside of U.S.	0.76	0.40	2.15 (0.98, 4.69)	0.06

2a: How is intergenerational cultural dissonance associated with risk for alcohol use among Chinese American adolescents?

Logistic regression analyses were conducted to determine the associations between conflict and risk for alcohol use among adolescents. Three types of conflict were entered as independent variables: (1) mean conflict of the parent-child dyad, (2) child's perceived conflict with the mother, and (3) child's perceived conflict with the father. The mean value for conflict at the level of the parent-child dyad was insignificant in predicting risk, as well as the child's perceived conflict with the father within father-child dyads using the best-fitting models as selected by forward and backward selection procedures. However, child's perceived conflict with the mother was found to be predictive of risk for alcohol use within mother-child dyads after controlling for the child born outside of the United States. The odds ratio for child's report

of conflict was 2.11 (95% C.I.: 1.13, 3.93; $p = 0.02$) as displayed in Table XX. The child's birth outside of the United States also increased the likelihood that he/she engaged in alcohol use (O.R. = 1.97; 95% C.I.: 0.91, 4.25; $p = 0.09$). The Hosmer and Lemeshow Goodness-of-Fit test resulted in a p -value of 0.39 ($\chi^2 = 8.50$, d.f. = 8).

TABLE XX
LOGISTIC REGRESSION MODEL FOR RISK OF ALCOHOL USE BY CONFLICT
WITHIN MOTHER-CHILD DYADS (n = 140)

Mother-Child Dyads (n=140)				
Variable	β	S.E.	Adjusted O.R. (95%C.I.)	p-value
Risk for Alcohol Use				
Child's Report of Conflict	0.75	0.31	2.11 (1.13, 3.93)	0.02
Child Born Outside of U.S.	0.68	0.39	1.97 (0.91, 4.25)	0.09

3a: How is the acculturation gap associated with intergenerational cultural dissonance within Chinese American families with adolescents?

A correlation analysis was performed to determine the strength and direction of relationships among parent and child behavioral acculturation (Within Group and Outside Group), and the mean value for conflict within parent-child dyads as shown in Table XXI. Important associations that resulted include a moderate and positive relationship between the child's acculturation and parent's acculturation ($r = 0.38$, $p < 0.0001$), which may indicate that a child's level of acculturation is associated to his/her parent's degree of acculturation and occurs in the same direction. Secondly, the correlation matrix reveals that a parent's degree of acculturation to American behaviors is negatively associated to his/her own enculturation of

Within Group (or Chinese) behaviors ($r = -0.38, p < 0.0001$). Thirdly, there exists a moderately negative relationship between level of child's acculturation and parent-child conflict ($r = -0.30, p < 0.0001$); the reason may be due to the acculturation levels of parent and child occurring in the same direction as mentioned above so that less conflict results.

TABLE XXI
CORRELATIONS AMONG PARENT AND CHILD BEHAVIORAL ACCULTURATION AND
MEAN CONFLICT WITHIN PARENT-CHILD DYADS ($n = 187$)

Measure	1	2	3	4	5
1. Child Outside Group (Acculturation)	—	0.38***	0.05	-0.17*	-0.30***
2. Parent Outside Group		—	0.04	-0.38***	-0.28***
3. Child Within Group (Enculturation)			—	0.04	-0.27**
4. Parent Within Group				—	0.11
5. Parent-Child Conflict					—

* $p < 0.05$. ** $p = 0.0002$. *** $p < 0.0001$.

In the correlation analysis between values acculturation of parent and child and parent-child conflict, a noteworthy relationship occurred between the child's score on Asian values and his/her score on Collectivistic Orientation, which reached significance. Table XXII presents the results that indicate that a higher score on Asian values resulted in greater adherence to a collectivistic orientation among students ($r = 0.51, p < 0.0001$). A second relationship reveals a moderately negative association between a child's

degree of collectivistic orientation and parent-child conflict, perhaps demonstrating that the more a child adheres to collectivistic values, the less conflict occurs within the family ($r = -0.34$, $p < 0.0001$).

TABLE XXII
CORRELATIONS AMONG PARENT AND CHILD ASIAN VALUES ACCULTURATION,
INDIVIDUALISTIC ORIENTATION, COLLECTIVISTIC ORIENTATION, AND MEAN CONFLICT
WITHIN PARENT-CHILD DYADS ($n = 187$)

Measure	1	2	3	4	5	6	7
1. Child Asian Values	—	0.16*	0.21*	-0.06	0.51‡	-0.002	-0.27**
2. Parent Asian Values		—	0.06	0.26**	0.06	0.26**	-0.10
3. Child Individualistic Orientation			—	0.23*	0.22*	0.19*	-0.05
4. Parent Individualistic Orientation				—	0.09	0.28***	0.05
5. Child Collectivistic Orientation					—	-0.08	-0.34‡
6. Parent Collectivistic Orientation						—	-0.11
7. Parent-Child Conflict							—

* $p < 0.05$, ** $p < 0.001$, *** $p = 0.0001$. ‡ $p < 0.0001$.

Multiple linear regression models were performed to assess seven different acculturation gaps and their associations with ICD within parent-child dyads, mother-child dyads, and father-child dyads. Table XXIII presents the best-fitting models that include only those acculturation gaps found significant for each type of dyad.

Within parent-child dyads, the enculturation gap and collectivistic orientation gap were significant predictors for the mean value of conflict for the dyad. The enculturation gap, while controlling for the covariates, child's age and household income, positively predicted conflict ($\beta = 0.15$, S.E = 0.03, $p < 0.0001$). The collectivistic orientation gap, while controlling for child's age and household income, also separately and positively predicted parent-child conflict ($\beta = 0.11$, S.E = 0.04, $p = 0.006$). Results show that for the covariate, child's age, the increase in age positively predicted conflict. For household income, the model indicates that income was negatively associated with conflict so that the higher the income, the lower the level of conflict.

Within mother-child dyads, the conflict with mother as perceived by the child was predicted by three types of gaps—enculturation, Asian values, and collectivistic orientation. The enculturation gap positively predicted conflict while controlling for the child's age, household income, and the parent's birth in the United States or outside the United States ($\beta = 0.22$, S.E = 0.05, $p < 0.0001$). Both household income and mother's birth outside the United States were negatively associated with conflict. The higher the income reported by the mother, the child perceived less conflict. The Asian values gap ($\beta = 0.11$, S.E = 0.05, $p = 0.03$), and the collectivistic orientation gap ($\beta = 0.26$, S.E = 0.06, $p < 0.0001$) while controlling for child's age were highly predictive as well. Among the gaps, the collectivistic orientation gap had the strongest relationship with child's perceived conflict with the mother.

Within father-child dyads, the child's perceived conflict with the father was predicted by five acculturation gaps, indicating that this perceived conflict was associated with differences in specific cultural values as well. In addition to the enculturation gap, collectivistic orientation gap, and the Asian values gap

that predicted conflict similar to the predictors of conflict with the mother, gaps resulting from dissimilarities in Harmony with Others ($\beta = 0.13$, S.E = 0.07, $p = 0.05$) and Modesty and Humility ($\beta = 0.29$, S.E = 0.11, $p = 0.005$) were also positively associated with perceived conflict with the father. Among all gaps, the Asian values gap demonstrated the strongest association with perceived conflict while controlling for child's age and father's educational level ($\beta = 0.38$, S.E = 0.10, $p = 0.0003$). With regard to this second covariate, results indicate that the lower the father's educational level, the greater the child perceived conflict with the father.

Lastly, analyses were also conducted to determine if any of the acculturation gaps were significant in predicting ICD as reported by parents. None of the gaps proved significant.

TABLE XXIII
MULTIPLE REGRESSION MODELS FOR CONFLICT BY ACCULTURATION GAPS FOUND
SIGNIFICANT WITHIN PARENT-CHILD DYADS, MOTHER-CHILD DYADS, AND
FATHER-CHILD DYADS

Parent-Child Dyads (n = 187)			
Variable	β	S.E.	p-value
Parent-Child Conflict			
Enculturation Gap	0.15	0.03	<0.0001
Child's Age	0.13	0.03	<0.0001
Higher Household Income	-0.19	0.07	0.005
Parent-Child Conflict			
Collectivistic Orientation Gap	0.11	0.04	0.005
Child's Age	0.12	0.03	<0.0001
Household Income	-0.18	0.07	0.007
Mother-Child Dyads (n = 140)			
Variable	β	S.E.	p-value
Mother-Child Conflict			
Enculturation Gap	0.22	0.06	<0.0001
Child's Age	0.14	0.05	0.004
Higher Household Income	-0.44	0.13	0.0005
Mother Born Outside U.S.	-0.51	0.18	0.005
Mother-Child Conflict			
Collectivistic Orientation Gap	0.26	0.06	<0.0001
Child's Age	0.14	0.05	0.003
Mother-Child Conflict			
Asian Values Gap	0.11	0.05	0.03
Child's Age	0.15	0.05	0.001
Father-Child Dyads (n = 47)			
Variable	β	S.E.	p-value
Father-Child Conflict			
Enculturation Gap	0.29	0.08	0.001
Child's Age	0.21	0.08	0.01
Father-Child Conflict			
Collectivistic Orientation Gap	0.23	0.09	0.01
Father's Less Educated	0.41	0.19	0.03
Father-Child Conflict			
Asian Values Gap	0.38	0.10	0.0003
Child's Age	0.21	0.08	0.01
Father's Less Educated	0.50	0.19	0.008
Father-Child Conflict			
Harmony with Others Gap	0.13	0.07	0.05
Father's Less Educated	0.49	0.19	0.01
Father-Child Conflict			
Modesty and Humility Gap	0.29	0.11	0.005
Child's Age	0.21	0.09	0.01

4a: How are parenting practices associated with intergenerational cultural dissonance within Chinese American families with adolescents?

A correlation analysis was conducted to assess the strength and direction of relationships among parent and child reports of parenting practices and the mean value for conflict at the level of the parent-child dyad. Only one notable relationship resulted between child's report of parenting practices and parent-child conflict, which was moderately correlated ($r = -0.45$, $p < 0.0001$) as revealed in Table XXIV. The higher the score on the child's report of parenting practices, indicating greater frequency of his/her parent engaging in practices that promote parent-child bonding, the less the conflict occurred between parent and child within a family.

TABLE XXIV
CORRELATIONS AMONG PARENT AND CHILD REPORTS FOR PARENTING PRACTICES AND
MEAN CONFLICT WITHIN PARENT-CHILD DYADS ($n = 187$)

Measure	1	2	3
1. Child Report of Parenting Practices	—	0.22*	-0.45**
2. Parent Report of Parenting Practices		—	-0.28**
3. Parent-Child Conflict			—

* $p < 0.05$. ** $p < 0.0001$.

Multiple linear regression analyses were performed to determine the best fitting models for the mean value of parent-child conflict, child's perceived conflict with mother, and child's perceived conflict with father by parenting practices that promote parent-child bonding as shown in Table XXV.

Within parent-child dyads, conflict was predicted by both the child's report of parenting practices and parent's report of parenting practices while controlling for the child's age. In this model, both child's report ($\beta = -0.20$, S.E = 0.04, $p < 0.0001$) and parent's report ($\beta = -0.12$, S.E = 0.05, $p = 0.01$) acted as main effects and were significantly and negatively associated with conflict, indicating that their reports of greater frequency of parenting practices that promote parent child bonding resulted in less conflict within the family. The interaction term of the parent's report by the child's report was insignificant in this model.

Within mother-child dyads, the best fitting model for child's perceived conflict with the mother resulted from his/her report of parenting practices. The mother's report of practices was insignificant. Moreover, the higher the score for the child's report of parenting practices was strongly predictive of less conflict ($\beta = -0.34$, S.E = 0.06, $p < 0.0001$) after controlling for child's age. Similarly, within father-child dyads, the child's report of the father's parenting practices was significantly predictive of his/her perceived conflict with the father after controlling for the child's age and household income. The father's report of parenting practices was found insignificant. The higher the score that measured parenting practices as reported by the child, the lower the child's perceived conflict with the father ($\beta = -0.50$, S.E = 0.10, $p < 0.0001$). Among all dyads, the strongest relationship occurred between the child's report of father's parenting practices and perceived level of conflict with the father.

TABLE XXV
 MULTIPLE REGRESSION MODELS FOR CONFLICT BY CHILD REPORTS OF
 PARENTING PRACTICES WITHIN PARENT-CHILD DYADS, MOTHER-CHILD DYADS,
 AND FATHER-CHILD DYADS

Parent-Child Dyads (n = 187)			
Variable	B	S.E.	p-value
Parent-Child Conflict			
Child Report of Parenting Practices	-0.20	0.04	<0.0001
Parent Report of Parenting Practices	-0.12	0.05	0.01
Child's Age	0.09	0.03	0.002
Mother-Child Dyads (n = 140)			
Variable	B	S.E.	p-value
Mother-Child Conflict			
Child Report of Parenting Practices	-0.34	0.06	<0.0001
Child's Age	0.09	0.04	0.04
Father-Child Dyads (n = 47)			
Variable	B	S.E.	p-value
Father-Child Conflict			
Child Report of Parenting Practices	-0.50	0.10	<0.0001
Child's Age	0.21	0.07	0.002
Higher Household Income	-0.66	0.16	<0.0001

D. Parenting Style Interaction Effects

1b: Does parenting style moderate the relationship between parent-child bonding and risk for alcohol use among Chinese American adolescents?

Logistic regression models were performed to determine if any of the four parenting styles as perceived by students of their parents—authoritarian, authoritative, indulgent (permissive) and neglectful—and guan exerted interaction effects between parent-child bonding and risk for alcohol use among Chinese American adolescents within parent-child dyads, mother-child dyads, and father-child dyads. Table XXVI reveals that while parenting styles did not interact with parent-child bonding within any of the dyads, parenting styles were found to be predictive of risk for alcohol use within parent-child and mother-child dyads. Within father-child dyads, parenting styles were found insignificant.

Within parent-child dyads, bonding was measured at the level of the parent-child dyad from the mean value of parent and child reports. The best fitting model demonstrated that among the four styles, authoritarian and neglectful parenting styles served as main effects and significantly increased the likelihood of engaging in alcohol use with odds ratios of 3.89 (95% C.I.: 1.19, 12.70; $p = 0.02$) and 10.11 (95% C.I.: 3.00, 34.01; $p = 0.0002$) respectively. Their interaction terms with parent and child reports of bonding separately were not significant. The likelihood to engage in alcohol use among adolescents that perceived their parents to engage in a neglectful parenting style was slightly more than 2.5 times greater than those who perceived their parents to have an authoritarian parenting style. In this model, parent-child bonding was no longer significant at $p = 0.09$ when adjusted for parenting styles so that authoritarian and neglectful parenting styles were confounders. Moreover, the odds for risk of alcohol use increased with the increasing age of the child (O.R. = 1.74; 95% C.I.: 1.10, 2.76; $p = 0.02$), and decreased when the parent was born outside the United States (O.R. = 0.21; 95% C.I.: 0.05, 0.86; $p = 0.03$). The Hosmer and Lemeshow Goodness-of-Fit Test indicated that the model was a very good fit for the data with a p-value of 0.90 ($\chi^2 = 3.53$, d.f. = 8)

Results from models on the Chinese-specific parenting style, guan, also did not demonstrate interaction effects between parent-child bonding and risk within parent-child dyads, but it achieved significance when entered into the analyses as a main effect. Unlike the authoritarian and neglectful parenting styles, guan served as a protective factor against risk for alcohol use with O.R. = 0.52 (95% C.I.: 0.30, 0.88; $p = 0.01$). However, parent-child bonding was no longer significant so that guan was a confounder in this model. Similar to the model discussed above, child's age achieved significance for increased risk and controlled for. The Hosmer and Lemeshow Goodness-of Fit Test indicated that this model was a good fit for the data with a p-value at 0.44 ($\chi^2 = 7.96$, d.f. = 8).

Within mother-child dyads, the logistic models that were performed included both mother and child reports of bonding along with their interaction term, and interactions of each of the four parenting styles with both mother and child reports separately. Results in Table XXVI indicate that the neglectful parenting style did not moderate the relationships between either report of bonding and risk for alcohol use, but achieved significance as a main effect. It increased the odds for risk by 2.63 (95% C.I.: 1.11, 6.18; $p = 0.03$). The child's report of bonding with the mother decreased risk for alcohol use (O.R. = 0.75; 95% C.I.: 0.47, 1.19; $p = 0.22$). However, it was no longer significant when the neglectful parenting style was entered so that the style acted as a confounder in this model. The Hosmer and Lemeshow Goodness-of Fit Test indicated that this model was a good fit for the data with a p-value at 0.62 ($\chi^2 = 5.31$, d.f. = 7). Lastly, guan, proved an insignificant parenting style within mother-child dyads.

TABLE XXVI
LOGISTIC REGRESSION MODELS FOR RISK OF ALCOHOL USE BY BONDING AND PARENTING STYLES WITHIN PARENT-CHILD DYADS AND MOTHER-CHILD DYADS

Parent-Child Dyads (n = 187)				
Variable	B	S.E.	Adjusted O.R. (95%C.I.)	p-value
Risk for Alcohol Use				
Parent-Child Bonding	0.65	0.37	1.91 (0.91, 4.00)	0.09
Authoritarian Parenting Style	1.36	0.61	3.89 (1.19, 12.70)	0.02
Neglectful Parenting Style	2.31	0.62	10.11 (3.00, 34.01)	0.0002
Child's Age	0.56	0.23	1.74 (1.10, 2.76)	0.02
Parent Born Outside of U.S.	1.57	0.72	0.21 (0.05, 0.86)	0.03
Risk for Alcohol Use				
Parent-Child Bonding	0.41	0.35	1.50 (0.75, 2.99)	0.25
Guan Parenting Style	-0.66	0.27	0.52 (0.30, 0.88)	0.01
Child's Age	0.57	0.22	1.78 (1.16, 2.74)	0.009
Mother-Child Dyads (n = 140)				
Variable	B	S.E.	Adjusted O.R. (95%C.I.)	p-value
Risk for Alcohol Use				
Child Report of Bonding	-0.29	0.24	0.75 (0.47, 1.19)	0.22
Neglectful Parenting Style	0.97	0.44	2.63 (1.11, 6.18)	0.03
Child's Age	0.45	0.22	1.57 (1.03, 2.40)	0.04

2b: Does parenting style moderate the relationship between intergenerational cultural dissonance and risk for alcohol use among Chinese American adolescents?

Logistic regression models were conducted to determine if any of the four parenting styles as perceived by students of their parents—authoritarian, authoritative, indulgent (permissive) and neglectful—and guan exerted interaction effects between ICD and risk for alcohol use among Chinese American adolescents within parent-child dyads, mother-child dyads, and father-child dyads. Similar to the relationships above between parent-child bonding and risk for alcohol use, parenting styles did not interact with conflict within any of the dyads. However, they were found to achieve significance within parent-child and mother-child dyads as main effects. Within father-child dyads, parenting styles were found insignificant.

Within parent-child dyads, conflict was measured at the level of the parent-child dyad from the mean value of parent and child reports. The best fitting model demonstrated that among the four styles, authoritarian and neglectful parenting styles again served as main effects and significantly increased the likelihood of engaging in alcohol use with odds ratios of 3.19 (95% C.I.: 1.07, 9.55; $p = 0.04$) and 6.28 (95% C.I.: 2.19, 18.02; $p = 0.0006$) respectively. Adolescents were twice as likely to drink alcohol if they perceived their parents to be neglectful than authoritarian. Intergenerational conflict within this model was no longer significant in predicting alcohol use when adjusted for parenting styles so that these styles acted as confounders. The Hosmer and Lemeshow Goodness-of-Fit Test revealed that this model is an excellent fit for the data with $p = 0.99$ ($\chi^2 = 1.58$, d.f. = 8).

The Chinese-specific parenting style, guan, did not demonstrate interaction effects between parent-child conflict and risk within parent-child dyads. However, it achieved significance when entered into the analyses as a main effect. Unlike authoritarian and neglectful parenting styles, guan served as a protective factor against risk for alcohol use with O.R. = 0.57 (95% C.I.: 0.35, 0.93; $p = 0.03$). However, ICD was no longer significant so that guan was a confounder in this model. The covariate, birth of the child outside of the United States, increased the odds for alcohol use by 1.98 (95% C.I.: 0.92, 4.26; $p = 0.08$). Although not significant, it was selected for in the best fitting model. The Hosmer and Lemeshow Goodness-of-Fit Test resulted in a p-value of 0.42 ($\chi^2 = 8.15$, d.f. = 8).

Within mother-child dyads, the logistic models that were performed included both mother and child reports of conflict along with their interaction term, and interactions of each of the four parenting styles with both mother and child reports separately. Results in Table XXVII reveal that authoritarian and neglectful parenting styles did not moderate the relationships between either report of conflict and risk for alcohol use, but achieved significance as confounders similar to the model above that described within parent-child dyads. The neglectful parenting style as perceived by the child increased the odds for risk by 5.60

(95%C.I.: 1.97, 15.97; $p = 0.001$); and the authoritarian parenting style reported an odds ratio of 2.94 (95% C.I.: 1.00, 8.68; $p = 0.05$). The best fitting model selected using backward and forward selection procedures included the child's report, but not the mother's. The child's report of conflict increased risk for alcohol use though it was not significant. The Hosmer and Lemeshow Goodness-of-Fit Test resulted in $p = 0.85$ ($\chi^2 = 4.06$, d.f. = 8), signifying that this model explains risk for alcohol use among adolescents by child's perceived conflict with the mother and parenting styles very well. Lastly, guan, proved an insignificant parenting style within mother-child dyads.

TABLE XXVII
LOGISTIC REGRESSION MODELS FOR RISK OF ALCOHOL USE BY CONFLICT AND
PARENTING STYLES WITHIN PARENT-CHILD DYADS AND MOTHER-CHILD DYADS

Parent-Child Dyads (n = 187)				
Variable	B	S.E.	Adjusted O.R. (95%C.I.)	p-value
Risk for Alcohol Use				
Parent-Child Conflict	0.06	0.53	1.06 (0.37, 3.00)	0.92
Authoritarian Parenting Style	1.16	0.56	3.19 (1.07, 9.55)	0.04
Neglectful Parenting Style	1.84	0.54	6.28 (2.19, 18.02)	0.0006
Risk for Alcohol Use				
Parent-Child Conflict	0.38	0.50	1.45 (0.55, 3.85)	0.45
Guan Parenting Style	-0.57	0.25	0.57 (0.35, 0.93)	0.03
Child Born Outside of U.S.	0.68	0.39	1.98 (0.92, 4.26)	0.08
Mother-Child Dyads (n = 140)				
Variable	B	S.E.	Adjusted O.R. (95%C.I.)	p-value
Risk for Alcohol Use				
Child Report of Conflict	0.24	0.35	1.27 (0.64, 2.51)	0.49
Authoritarian Parenting Style	1.08	0.55	2.94 (1.00, 8.68)	0.05
Neglectful Parenting Style	1.72	0.53	5.60 (1.97, 15.97)	0.001

3b: Does parenting style moderate the relationship between acculturation gap and intergenerational cultural dissonance among Chinese American families?

To assess the interaction effects of parenting styles, including the Chinese-based parenting style *guan*, with acculturation gaps on ICD within Chinese American families, multiple linear regressions analyses were conducted while controlling for demographic variables. The variable, parenting styles, that was entered into the models were styles as reported by the students of their parents. Moreover, the authoritative parenting style served as the reference style in these models. Table XXVIII shows only those gaps between parent and child from the seven possible acculturation gaps (enculturation gap, acculturation gap, individualistic orientation gap, collectivistic orientation gap, Asian values gap, Harmony with Others gap, Modesty and Humility gap) that resulted in significant interactions with parenting styles to predict conflict.

Within parent-child dyads, three types of gaps interacted with parenting styles; they were the enculturation gap, acculturation gap, and the collectivistic orientation gap. The best-fitting model indicates that both the authoritarian and indulgent (permissive) parenting styles interacted with the acculturation gap or the gap between parent and child with regard to American behaviors to increase conflict compared to the interaction between the acculturation gap moderated by an authoritative parenting style. In fact, although not significant, the acculturation gap was predictive of less conflict under an authoritative parenting style. However, conflict increased under the authoritarian parenting style ($\beta = -0.09 + 0.17 = 0.08$) that was significantly different from the acculturation gap by authoritative parenting style at $p = 0.04$. Similarly, the acculturation gap increased conflict under the indulgent or permissive parenting style ($\beta = 0.10$, $p = 0.04$). The acculturation gap had little effect under the neglectful style, and was found insignificant compared to the reference parenting style. Conflict was measured within parent-child dyads as the mean value of the parent and child reports.

The collectivistic orientation gap between parent and child also showed a significant interaction with parenting styles, neglectful and guan. The other styles, authoritarian and indulgent or permissive, were found to have insignificant effects compared to the collectivistic orientation gap under the authoritative parenting style. The neglectful parenting style moderated the relationship between the collectivistic orientation gap and conflict to significantly predict greater conflict ($\beta = 0.22$, $p = 0.04$) in contrast to the authoritative parenting style. Similarly, guan moderated the relationship between the collectivistic orientation gap and conflict. However, in this case, rather than increase risk of the collectivistic orientation gap to predict conflict, guan interacted with this gap to decrease the level of conflict within the parent-child dyad. Although the collectivistic orientation gap increased conflict ($\beta = 0.30$, S.E. = 0.13, $p = 0.03$), the effect was weaker with increasing values of guan ($0.30 - (0.07 * \text{Guan})$) at $p = 0.05$. Guan also interacted with the enculturation gap or difference between parent and child with regard to Chinese behaviors in the same manner. The enculturation gap's effect on conflict was weaker with increasing values of guan while controlling for the covariates, child's age and birth outside the United States.

TABLE XXVIII

MULTIPLE REGRESSION MODELS FOR CONFLICT BY INTERACTION EFFECTS OF
PARENTING STYLES AND ACCULTURATION GAPS WITHIN PARENT-CHILD DYADS (n = 187)

Parent-Child Dyads (n = 187)				
Variable	β	S.E.	Effect of Gap	p-value
Parent-Child Conflict				
Acculturation Gap	-0.09	0.05		0.08
Authoritarian Parenting Style	0.38	0.09		<0.0001
Indulgent (Permissive) Parenting Style	0.18	0.10		0.08
Neglectful Parenting Style	0.44	0.09		<0.0001
Acculturation Gap x Authoritarian	0.17	0.08	0.08	0.04
Acculturation Gap x Indulgent	0.19	0.09	0.10	0.04
Acculturation Gap x Neglectful	0.07	0.08	-0.02	0.40
Child's Age	0.08	0.03		0.004
Parent-Child Conflict				
Collectivistic Orientation Gap	0.03	0.06		0.66
Authoritarian Parenting Style	0.27	0.08		0.0004
Indulgent Parenting Style	0.04	0.08		0.62
Neglectful Parenting Style	0.38	0.07		<0.001
Collectivistic Gap x Authoritarian	0.004	0.10	0.03	0.97
Collectivistic Gap x Indulgent	0.00	0.10	0.03	0.98
Collectivistic Gap x Neglectful	0.19	0.10	0.22	0.04
Child's Age	0.09	0.03		0.001
Parent-Child Conflict				
Collectivistic Orientation Gap	0.30	0.13		0.03
Guan Parenting Style	-0.17	0.03		<0.0001
Collectivistic Gap x Guan	-0.07	0.04	0.30 -(0.07*Guan)	0.05
Child's Age	0.11	0.03		0.0001
Child Born Outside of U.S.	0.08	0.05		0.11
Parent-Child Conflict				
Enculturation Gap	0.33	0.12		0.005
Guan Parenting Style	-0.12	0.04		0.001
Enculturation Gap x Guan	-0.07	0.03	0.33 -(0.07*Guan)	0.04
Child's Age	0.12	0.03		<0.0001
Child Born Outside of U.S.	0.09	0.05		0.08

Multiple linear regression models were run to predict the level of conflict with the mother as reported by the child within mother-child dyads by the independent variables—acculturation gaps, parenting styles, and the interactions of parenting styles with each gap separately while controlling for demographic variables. In Table XXIX, only those gaps between mother and child that resulted in significant interactions with parenting styles to predict conflict are described. Three different types of gaps interacted with parenting styles, which included the acculturation gap, individualistic orientation gap, and collectivistic orientation gap.

The authoritarian and indulgent (permissive) parenting styles interacted with the acculturation gap to positively predict perceived conflict by the child compared to the acculturation gap under that authoritative parenting style. Under this reference style, though insignificant, acculturation gap was negatively related to conflict within the mother-child dyad. However, the acculturation gap under the authoritarian ($\beta = 0.13$, $p = 0.01$) and indulgent ($\beta = 0.10$, $p = 0.04$) parenting styles significantly worsened the gap's effect on conflict

With regard to the individualistic orientation gap, only the neglectful parenting style achieved significance. It interacted with this gap to significantly increase conflict between mother and child ($\beta = 0.30$, $p = 0.02$) compared to the individualistic gap under the authoritative parenting style. The neglectful parenting style also interacted with the collectivistic orientation gap to more strongly and positively predict conflict ($\beta = 0.63$, $p = 0.0006$) than the gap under the authoritative parenting style. Similarly, the Chinese-based parenting style, guan, served as a moderator in the relationship between the collectivistic orientation gap and conflict. However, in this model, guan interacted with the gap to decrease the gap's effect on conflict between mother and child as perceived by the child. The collectivistic orientation gap's effect on conflict was weaker with increasing values of guan while controlling for the child's age ($0.66 - (0.14 \times \text{Guan})$) at $p = 0.03$.

TABLE XXIX
 MULTIPLE REGRESSION MODELS FOR CONFLICT BY INTERACTION EFFECTS OF
 PARENTING STYLES AND ACCULTURATION GAPS WITHIN MOTHER-CHILD DYADS (n = 140)

Mother-Child Dyads (n = 140)				
Variable	β	S.E.	Effect of Gap	p-value
Mother-Child Conflict				
Acculturation Gap	-0.12	0.07		0.09
Authoritarian Parenting Style	0.38	0.11		0.0004
Indulgent (Permissive) Parenting Style	0.21	0.11		0.05
Neglectful Parenting Style	0.50	0.11		<0.0001
Acculturation Gap x Authoritarian	0.25	0.10	0.13	0.01
Acculturation Gap x Indulgent	0.22	0.11	0.10	0.04
Acculturation Gap x Neglectful	0.12	0.10	0.00	0.25
Child's Age	0.08	0.03		0.02
Mother-Child Conflict				
Individualistic Orientation Gap	-0.005	0.09		0.95
Authoritarian Parenting Style	0.39	0.13		0.003
Indulgent Parenting Style	0.12	0.13		0.36
Neglectful Parenting Style	0.68	0.12		<0.001
Individualistic Gap x Authoritarian	-0.10	0.16	-0.11	0.53
Individualistic Gap x Indulgent	-0.007	0.15	-0.01	0.96
Individualistic Gap x Neglectful	0.30	0.13	0.30	0.02
Child's Age	0.06	0.05		0.17
Mother-Child Conflict				
Collectivistic Orientation Gap	0.14	0.09		0.13
Authoritarian Parenting Style	0.30	0.12		0.01
Indulgent Parenting Style	0.05	0.12		0.68
Neglectful Parenting Style	0.60	0.11		<0.001
Collectivistic Gap x Authoritarian	-0.01	0.15	0.13	0.95
Collectivistic Gap x Indulgent	-0.07	0.16	0.07	0.65
Collectivistic Gap x Neglectful	0.49	0.14	0.63	0.0006
Child's Age	0.08	0.04		0.06
Mother-Child Conflict				
Collectivistic Orientation Gap	0.66	0.24		0.006
Guan Parenting Style	-0.27	0.06		<0.0001
Collectivistic Gap x Guan	-0.14	0.06	0.66 -(0.14*Guan)	0.03
Child's Age	0.12	0.04		0.006

Within father-child dyads, conflict with the father as perceived by the child served as the dependent variable in the analyses that examined parenting styles and their interactions with acculturation gaps. Only those gaps that achieved significance in their interactions with the various styles are illustrated in Table XXX. The neglectful parenting style interacted with the acculturation gap. With regard to the acculturation gap, the neglectful parenting style moderated the relationship so that the acculturation gap predicted greater conflict ($\beta = 0.15$, $p = 0.03$), whereas the gap under the authoritative parenting style when controlled for demographic variables protected against conflict between father and child ($\beta = -0.22$, $p = 0.01$). The results for the demographic variable, household income, indicated that the higher the income that was reported for a household, the lower the amount of conflict was perceived by the child ($\beta = -0.55$, $S.E. = 0.18$, $p = 0.002$). Moreover, the birth of the father outside of the United States was positively associated with the conflict between father and child ($\beta = 0.72$, $S.E. = 0.31$, $p = 0.02$)

Similarly, the collectivistic orientation gap interacted with the authoritarian parenting style to become predictive of greater conflict ($\beta = 0.29$, $p = 0.03$) compared to the gap under the authoritative parenting style, which was associated with less conflict although not significant. The father's educational level was an important predictor in the model; the lower level of education that the father completed, the greater the amount of conflict resulted ($\beta = 0.49$, $S.E. = 0.21$, $p = 0.02$). Guan was found to be insignificant in interacting with any of the acculturation gaps within father-child dyads.

TABLE XXX
 MULTIPLE REGRESSION MODELS FOR CONFLICT BY INTERACTION EFFECTS OF
 PARENTING STYLES AND ACCULTURATION GAPS WITHIN FATHER-CHILD DYADS (n = 47)

Father-Child Dyads (n = 47)				
Variable	β	S.E.	Effect of Gap	p-value
Father-Child Conflict				
Acculturation Gap	-0.22	0.09		0.01
Authoritarian Parenting Style	0.35	0.18		0.06
Indulgent (Permissive) Parenting Style	-0.01	0.21		0.96
Neglectful Parenting Style	0.41	0.19		0.03
Acculturation Gap x Authoritarian	0.28	0.15	0.06	0.07
Acculturation Gap x Indulgent	0.26	0.17	0.04	0.12
Acculturation Gap x Neglectful	0.37	0.16	0.15	0.03
Higher Household Income	-0.55	0.18		0.002
Father Born Outside of U.S.	0.72	0.31		0.02
Father-Child Conflict				
Collectivistic Orientation Gap	-0.16	0.16		0.31
Authoritarian Parenting Style	0.07	0.17		0.67
Indulgent Parenting Style	-0.22	0.50		0.67
Neglectful Parenting Style	0.12	0.18		0.48
Collectivistic Gap x Authoritarian	0.45	0.21	0.29	0.03
Collectivistic Gap x Indulgent	0.39	0.51	0.23	0.45
Collectivistic Gap x Neglectful	0.25	0.23	0.09	0.27
Child's Age	0.21	0.08		0.005
Higher Household Income	-0.38	0.18		0.04
Father Less Educated	0.49	0.21		0.02

4b: Does parenting style moderate the relationship between parenting practices and intergenerational cultural dissonance?

For the analyses of this research question, multiple linear regression models were conducted that included the following as independent variables to predict conflict within parent-child dyads, mother-child dyads, and father-child dyads: child's report of parenting practices, parent (parent, mother, and father separately) reports of parenting practices, interaction of child's report and parent reports of parenting practices, interaction of child's report of practices with parenting styles, and interactions of parent reports of parenting practices with parenting styles. The variable, parenting style, that was entered into the models were styles as reported by the students of their parents. The authoritative parenting style served as the reference style in these models. Within father-child dyads, interactions of the five parenting styles, including guan, with parenting practices were found insignificant in predicting conflict with the father as reported by the child. Table XXXI exhibits the best fitting models for both parent-child dyads and mother child dyads.

Within parent-child dyads, conflict, the dependent variable, was measured by the mean of the parent and child reports for conflict. As shown in the table below, only the child's report of parenting practices was found to significantly interact with parenting styles, and among the different styles, neglectful and guan moderated the relationship between parenting practices and parent-child conflict. The child's report of parenting practices that promote parent-child bonding under the authoritative parenting style was inversely related to conflict although it was not significant. When the neglectful parenting style was entered as an interaction term with parenting practices, it moderated parenting practices so that it was strongly associated with less conflict ($\beta = -0.39$, $p = 0.02$). Child's report of parenting practices and guan parenting style each separately protected against conflict within the parent-child dyad, but together as an interaction term, guan interacted with the child's report of parenting practices to more strongly protect against conflict with increasing values for this style while controlling for child's age ($-0.72-(0.13*\text{Guan})$) at $p = 0.02$.

Within mother-child dyads, the results were very similar to the outcomes found for the parent-child dyads as displayed in Table XXXI. For these dyads, conflict was defined as the child's report of conflict with his/her mother within mother-child dyads, and entered as the dependent variable. Only the child's report of parenting practices, and not the mother's report, was found to significantly interact with parenting styles. The neglectful parenting style was again found to be the moderator by interacting with parenting practices to predict less conflict ($\beta = -0.57$, $p = 0.02$) compared to parenting practices under the authoritative parenting style. Guan also interacted with child's report of parenting practices to increase the effect of parenting practices on reducing conflict with increasing values for this Chinese-based parenting style.

TABLE XXXI
MULTIPLE REGRESSION MODELS FOR CONFLICT BY INTERACTION EFFECTS OF
PARENTING STYLES AND CHILD REPORTS OF PARENTING PRACTICES WITHIN
PARENT-CHILD DYADS AND MOTHER-CHILD DYADS

Parent-Child Dyads (n = 187)				
Variable	β	S.E.	Effect of Gap	p-value
Parent-Child Conflict				
Child's Report of Parenting Practices	-0.01	0.12		0.86
Authoritarian Parenting Style	0.61	0.39		0.12
Indulgent (Permissive) Parenting Style	0.53	0.50		0.29
Neglectful Parenting Style	1.19	0.41		0.004
Parenting Practices x Authoritarian	-0.12	0.11	-0.13	0.29
Parenting Practices x Indulgent	-0.14	0.14	-0.15	0.31
Parenting Practices x Neglectful	-0.29	0.13	-0.39	0.02
Child's Age	0.09	0.03		0.0008
Parent-Child Conflict				
Child's Report of Parenting Practices	-0.72	0.20		0.0004
Guan Parenting Style	-0.60	0.17		0.0005
Parenting Practices x Guan	0.13	0.05	-0.72-(0.13*Guan)	0.02
Child's Age	0.08	0.04		0.02
Mother-Child Dyads (n = 140)				
Variable	β	S.E.		p-value
Mother-Child Conflict				
Child's Report of Parenting Practices	-0.12	0.12		0.35
Authoritarian Parenting Style	0.64	0.60		0.29
Indulgent (Permissive) Parenting Style	0.11	0.74		0.88
Neglectful Parenting Style	1.75	0.63		0.005
Parenting Practices x Authoritarian	-0.15	0.18	-0.27	0.41
Parenting Practices x Indulgent	-0.01	0.20	-0.11	0.95
Parenting Practices x Neglectful	-0.45	0.20	-0.57	0.02
Child's Age	0.08	0.04		0.06
Mother-Child Conflict				
Child's Report of Parenting Practices	-0.72	0.23		0.002
Guan Parenting Style	-0.62	0.19		0.001
Parenting Practices x Guan	0.13	0.06	-0.72-(0.13*Guan)	0.03
Child's Age	0.08	0.04		0.05

VII. DISCUSSION

This research study examined a culturally-based factor, ICD, within Chinese American families as a risk factor for alcohol use among adolescents. Moreover, it separately addressed the role of parent-child bonding as a protective factor against use. This study, in particular, aimed to explore ICD at greater depth due to the lack of research that exists to understand this type of conflict commonly found between parent and child among racial/ethnic minority and immigrant families. Intergenerational cultural dissonance the clash between parents and children over cultural values result from comparatively greater rates of assimilation by adolescents to U.S. society (Choi et al., 2008).

A macro-theoretical conceptual framework was developed to consider cultural influences on parent-child bonding and conflict within families to prevent adolescent substance use. Drawing on the TTI, deep structural level cultural factors were identified such as dissimilarities in behavioral and values acculturation between parent and child that serve as common sources of conflict. Secondly, the parenting practices, which the SDM hypothesizes to promote parent-child bonding, were assessed to determine if they also act to decrease intergenerational conflict. Lastly, drawing on the CMPS, this study explored the moderating role of parenting styles (authoritarian, authoritative, indulgent, permissive, neglectful) on relationships among intergenerational conflict, parent-child bonding, and risk for alcohol use.

The four main questions in this research study included the following: (1a) How is parent-child bonding associated with risk for alcohol use among Chinese American adolescents? (2a) How is ICD associated with risk for alcohol use among Chinese American adolescents? (3a) How is the acculturation gap associated with ICD within Chinese American families with adolescents? (4a) How are parenting practices associated with ICD within Chinese American families with adolescents?

From these research questions, the hypotheses of this research study were: (1) positive parent-child bonding will be inversely related to risk for alcohol use among Chinese American adolescents; (2)

ICD will be positively related to risk for alcohol use among Chinese American adolescents; (3) acculturation gaps will be positively related to ICD within Chinese American families; and (4) positive parenting practices will be inversely related to ICD within Chinese American families.

In this chapter, discussion of the main findings for predicting risk for alcohol use from this research study is first offered, as well as the interactions of parenting styles with parent-child bonding and conflict separately to more comprehensively describe this problem behavior among adolescents within Chinese American families. Next, potential culturally-based sources for conflict between parent and child are explained. Analyses of the significance of parenting styles interacting with these culturally-based factors to greater understand parent-child conflict follow. Strengths and limitations of the research study are then presented.

A. Parent-Child Bonding and Intergenerational Conflict on Risk for Alcohol Use

This research study considered parent-child bonding and ICD as two distinct constructs to be examined separately in their relationships with risk for alcohol use. It did not presuppose that the absence of one factor signified the presence of the other or vice versa. From the correlation analyses, results revealed several key and strongly correlated relationships between the child's perceived level of conflict and his/her degree of bonding with the mother and father that achieved significance. Children did not perceive their relationships with the mother and father to differ very much. Moreover, the child's perceived level of conflict with a parent was inversely associated with his/her degree of bonding with the same parent, as well as inversely correlated with the degree of bonding with the other parent. It may be implied therefore that parent-child bonding and conflict are associated, and furthermore, that the child's perceptions of bonding or conflict with one parent may influence his/her perceptions with the other parent.

With regard to the first research question that examined the association between parent-child bonding and risk for alcohol use among Chinese American adolescents, it was hypothesized that positive

parent-child bonding would be inversely related to risk consistent with expectations from the SDM. Results from this research study supported this hypothesis, and revealed that parent-child bonding within Chinese American families served as a protective factor against alcohol use among adolescents. Table XXXII summarizes the findings that were found significant and insignificant between parent-child bonding and risk for alcohol use. The degree of bonding as perceived by the child with his/her mother significantly decreased the likelihood that he/she would engage in underage drinking by a half. Past studies have also found a similar relationship between parent-child bonding, as defined by SDM, and protection against problem behaviors (Catalano et al., 1999; Deng & Roosa, 2007). In one of the studies, the SDM measurement of parent-child bonding was applied to a sample of Chinese adolescents between 11 and 17 years old in Beijing, China, which revealed that this Western-based theory was applicable to study a Chinese population (Deng & Roosa, 2007), strengthening the support that SDM may serve as an appropriate model to predict adolescent problem behaviors among Chinese American families as well.

Within families, the child's perceived level of conflict with the mother, on the other hand, served as a potential risk factor, confirming the second hypothesis that ICD would be positively associated with risk for alcohol use shown in Table XXXII. For every increase in one unit of conflict, results showed an increase in the odds for risk of alcohol use by around 112% among students. In a research study by Choi et al. (2008), researchers found that within Vietnamese and Cambodian American families, conflict predicted greater problem behaviors such as trespassing, drawing graffiti, shoplifting, setting fire, carrying a weapon to school, starting a fight, and more. Moreover, only conflict as perceived by the child and not by the parent acted as a significant predictor of his/her problem behaviors similar to the findings in this research study that showed that adolescents' perceptions resulted in the prediction of their own alcohol-related behaviors. It is not surprising therefore that parent reports of conflict were poorly correlated with the adolescents' reports of conflict likewise found by Choi et al. (2008), which points to the differing perceptions that parents and children may have on the level of conflict that exists within the family. The perceived level of bonding

between parent and child were poorly correlated as well. The dissertation study attempted to measure the actual levels of bonding and conflict within the parent-child dyad through measurement of both parent and child perceptions. However, it can be determined that regardless of the actual levels of family conflict that exist, perceptions by adolescents are the most critical predictors to consider in assessing the relationship to their own problem behaviors.

Bonding and conflict with the mother achieved significance in understanding risk for alcohol use, which demonstrates the weight of this relationship. Although the child's perceived bonding and conflict with the father were found insignificant in predicting risk for alcohol use, this may be due to the small number of father-child dyads collected. It may be assumed however that because the child's perceptions of his/her relationships to the mother and father did not differ very much as shown by the previous correlation analyses, the child's perceptions of bonding and conflict with the father would affect his/her risk for alcohol use in a similar manner as the child's perceptions with the mother.

TABLE XXXII
SIGNIFICANT AND INSIGNIFICANT RELATIONSHIPS AMONG PARENT-CHILD BONDING, PARENT-CHILD CONFLICT, AND RISK FOR ALCOHOL USE^a

Risk for Alcohol Use		
Variable	Significant	Insignificant
Parent-Child Dyads		
Mean Value for Bonding within Parent-Child Dyads		X
Mean Value for Conflict within Parent-Child Dyads		X
Mother-Child Dyads		
Child's Perceived Bonding with Mother	X	
Child's Perceived Conflict with Mother	X	
Father-Child Dyads*		
Child's Perceived Bonding with Father		X
Child's Perceived Conflict with Father		X

^a Mother and father's perceived conflict and bonding with child were found insignificant with child's risk of alcohol use

B. Parenting Styles and Guan to Understand Risk for Alcohol Use

Although the CMPS hypothesized that parenting styles moderated parenting practices to predict child outcomes (Darling & Steinberg, 1993), parenting styles were also explored in this study to determine if they exerted interaction effects with parent-child bonding and conflict to gain a greater understanding of adolescent risk for alcohol use. Additionally, the Chinese-based parenting style, guan, was assessed similarly. Table XXXIII summarizes the relationships found significant and insignificant for parent-child bonding and parenting styles on risk for alcohol use, and parent-child conflict and parenting styles on risk.

In examining bonding as a mean value within parent-child dyads, the authoritarian and neglectful parenting styles each proved strong predictors for risk of alcohol use as main effects rather than as moderators. Adolescents who perceived their parents to be authoritarian were nearly four times as likely to be at risk, and were about ten times as likely to be at risk if they perceived their parents as neglectful. The

neglectful parenting style as perceived by the child within mother-child dyads was found to also greatly increase the odds for risk of alcohol use. Parent-child bonding within both types of dyads surprisingly was no longer significant so that the parenting styles acted as confounders.

Likewise, the authoritarian and neglectful parenting styles directly predicted alcohol use rather than interact with ICD within parent-child dyads and mother-child dyads. Both parenting styles increased risk for alcohol use with the effect of the neglectful parenting style resulting in twice the odds compared to the authoritarian style. Intergenerational cultural dissonance was also no longer significant in predicting alcohol use so that parenting styles again acted as confounders. With regard to both family-based factors, parent-child bonding and conflict, guan decreased risk for alcohol use, proving that it may serve as a potential parenting style within families that is effective in protecting adolescents against alcohol use. Parenting styles including guan unexpectedly acted as confounders rather than moderators demonstrating that when examining parent-child bonding and conflict with risk for alcohol use, parenting attitudes should be considered. They independently affect risk so that bonding and conflict alone are insufficient in understanding adolescent problem behaviors. Lastly, the authoritative and permissive or indulgent parenting styles did not reach significance in the models predicting risk for alcohol use among adolescents. Further research is needed to determine the potential causes for this finding.

TABLE XXXIII
SIGNIFICANT AND INSIGNIFICANT RELATIONSHIPS FOR PARENT-CHILD BONDING,
PARENT-CHILD CONFLICT, AND PARENTING STYLES ON RISK FOR ALCOHOL USE

Parent-Child Bonding and Parenting Styles on Risk for Alcohol Use		
Variable	Significant	Insignificant
Mean Value for Bonding within Parent-Child Dyads		X
Authoritative Style		X
Authoritarian Style	X	
Permissive		X
Neglectful	X	
Guan	X	
Child's Perceived Bonding with Mother		X
Authoritative Style		X
Authoritarian Style		X
Permissive		X
Neglectful	X	
Guan		X
Child's Perceived Bonding with Father		X
Authoritative Style		X
Authoritarian Style		X
Permissive		X
Neglectful		X
Guan		X
Parent-Child Conflict and Parenting Styles on Risk for Alcohol Use		
Variable	Significant	Insignificant
Parent-Child Conflict		
Authoritative Style		X
Authoritarian Style	X	
Permissive		X
Neglectful	X	
Guan	X	
Child's Perceived Conflict with Mother		X
Authoritative Style		X
Authoritarian Style	X	
Permissive		X
Neglectful	X	
Guan		X
Child's Perceived Conflict with Father		X
Authoritative Style		X
Authoritarian Style		X
Permissive		X
Neglectful		X
Guan		X

Results from this study show that the authoritarian and neglectful parenting styles may be harmful by increasing the likelihood of children to engage in underage drinking. The neglectful parenting style increased risk for use by twice or more compared to the authoritarian parenting style. The neglectful style may thus be the most detrimental approach to parenting. Past research studies have also found that neglect and the neglectful parenting style have proved the most damaging in predicting problem behaviors including use and abuse of alcohol and tobacco among adolescents (Lamborn et al., 1991; Steinberg et al., 1994; Hoeve et al., 2009; Hoeve et al., 2008; Luyckx et al., 2011). Lamborn, et al. (1991) revealed that adolescents that described their parents as neglectful, compared to adolescents that reported other parenting styles, scored among the poorest of all measured outcomes, which included psychosocial development, academic competence, internalized distress, and problem behavior involving alcohol and drug use, school misconduct and delinquency. Moreover, a past longitudinal study by Steinberg et al. (1994) which followed the same sample of adolescents reported in the research study by Lamborn et al. (1991) a year later, found that the baseline negative effects from the neglectful parenting style continued to accumulate so that the adolescents that reported this style suffered from sharp increases in problem behaviors when they entered high school (Steinberg et al., 1994). However, unlike the studies by Steinberg et al. (1994), Lamborn et al. (1991), and others (Luyckx et al., 2011; Hoeve et al., 2008), the authoritarian parenting style did not protect adolescents from risk for alcohol use in this study. Further research is needed to determine the reason for the lack of protection traditionally offered by this style with its characteristically high levels of strictness and supervision.

In contrast, guan was strongly protective. Chao (1994) maintains that guan is a distinctive style separate from Baumrind's classification of parenting styles (1971), indicating that it is unique to the Chinese culture. It is described by parental control and authority while implying high levels of care, involvement, and concern. The finding from this study confirms that guan is different from the authoritarian parenting style due its protective effect on risk for alcohol use, despite the similarities with regard to strict monitoring and

governance. Perhaps, Chinese American adolescents in this sample perceive guan positively likewise to the attitudes held by the sample of Chinese immigrant mothers in Chao's research study (1994).

Finally, results demonstrated that the child's birth outside of the United States resulted in a greater likelihood that Chinese American adolescents engaged in alcohol use. Many studies that have been conducted in the past have shown that greater acculturation among adolescents is related to more problem behaviors. However, in a study by Chung (2001), she found that among Asian American university students, the highly acculturated group of students reported significantly less conflict than the low acculturated group because for the majority of the highly acculturated students, their parents on average were more likely to have been born or have lived in the United States or a longer period of time. She argues that first generation immigrants often undergo dramatic cultural shifts so that they and their families suffer most from acculturative stress. Due to drastic changes involved with immigration, parents become anxious about their children rapidly adjusting to mainstream culture and losing the traditions, customs, and values from their countries of origin. They respond by becoming stricter and adhering more strongly to traditional values especially with regard to individuality and personal freedom. She suggests that immigrant parents become secure with the host culture over time so that differences in acculturation with their children diminish, resulting in less conflict (Chung, 2001).

In this sample, the parents of students that were born outside of the United States were more likely to have recently immigrated. Perhaps, they also felt threatened by the loss of cultural values as their children more rapidly assimilated to the United States compared to the more acculturated parents of students that were born here, increasing ICD within the family. Additionally, the majority of the parents surveyed were comprised of immigrants from China with lower levels of socioeconomic status. Low educational levels and household incomes were highly predictive of conflict, which was a risk factor for alcohol use. Immigrant parents, especially recent immigrants, may face greater economic challenges that

drive them to work long hours and have less time to spend with their children, leaving these adolescents to increased vulnerability for problem behaviors.

C. Intergenerational Cultural Dissonance (Intergenerational Conflict)

Intergenerational cultural dissonance was examined at greater depth in this research study with the purpose to determine causes for conflict such as from acculturation gaps between parent and child in behaviors and values, and from the lack of parenting practices that encourage bonding.

The third main hypothesis for this research study stated that acculturation gaps will be positively related to intergenerational conflict within Chinese American families, which was confirmed as acculturation differences in behaviors and values between parent and child created sources for conflict as represented in Table XXXIV.

TABLE XXXIV

SIGNIFICANT AND INSIGNIFICANT RELATIONSHIPS BETWEEN ACCULTURATION GAPS AND CONFLICT WITHIN PARENT-CHILD DYADS, MOTHER-CHILD DYADS, AND FATHER-CHILD DYADS

ICD within Parent-Child Dyads		
Variable	Significant	Insignificant
Acculturation Gap		X
Enculturation Gap	X	
Individualistic Orientation Gap		X
Collectivistic Orientation Gap	X	
Asian Values Gap		X
Harmony with Others Gap		X
Modesty and Humility Gap		X
ICD within Mother-Child Dyads		
Variable	Significant	Insignificant
Acculturation Gap		X
Enculturation Gap	X	
Individualistic Orientation Gap		X
Collectivistic Orientation Gap	X	
Asian Values Gap	X	
Harmony with Others Gap		X
Modesty and Humility Gap		X
ICD within Father-Child Dyads		
Variable	Significant	Insignificant
Acculturation Gap		X
Enculturation Gap	X	
Individualistic Orientation Gap		X
Collectivistic Orientation Gap	X	
Asian Values Gap	X	
Harmony with Others Gap	X	
Modesty and Humility Gap	X	

Results suggest that ICD occurs mainly from the differences between parent and child in Asian behaviors and values; the acculturation gap (or acculturation to American behaviors) and the individualistic orientation gap in contrast were not significant in causing conflict. For example, within parent-child dyads, the enculturation and collectivistic orientation gaps were predictive of ICD. The mean value of conflict was measured for parent-child dyads to obtain a better measure of the actual level that exists for this construct. However, these same Asian-related gaps were also predictive of conflict as perceived by the child with his/her mother and father separately. Adolescents generally scored lower than parents on both Asian behaviors and values so that parents may be attempting to socialize and reinforce their children in adopting traditional values and behaviors. Perhaps, the threat that parents may feel is not from the adoption of Western behaviors and values; rather the perceived threat to the family arises from the loss of cultural values and behaviors. Past studies support the finding that conflict within the family results from differences in traditional cultural values with similar findings among Asian American adolescents (Choi et al., 2008; Tsai-Chae & Nagata, 2008; Ahn et al., 2008; Chung, 2001). This study is unique in that it was able to discern that the adoption of Western-related gaps in both values and behaviors were not sources for ICD. As mentioned earlier, values held by immigrant parents may also begin to change as they adapt to a different society, creating greater culturally complex family environments in which their children are raised. In a research study conducted by Chuang and Su (2009), the researchers hypothesized that as immigrant parents assimilate to the host country, they view the adoption of Western values as necessary for their children to achieve success (Chuang & Su, 2009).

To better understand ICD, this research study assessed the interaction effects of parenting styles, including the Chinese-based parenting style *guan*, with acculturation gaps on ICD within Chinese American families. It found that the neglectful and authoritarian parenting styles achieved significance interacting with the gaps to predict increased conflict among all the dyads. Furthermore, the neglectful parenting style was notably associated with greater conflict than the gaps under the other parenting styles. The authoritarian

parenting style, although not as strong as the neglectful parenting style to increase conflict, was still predictive of heightened ICD. Gaps under guan consistently predicted less conflict compared to gaps under the authoritative parenting style.

A second factor examined for understanding ICD was parenting practices. The fourth main hypothesis for this research study stated that positive parenting practices will be inversely related to ICD within Chinese American families. The results confirmed this hypothesis, which revealed that the greater the degree of parenting practices engaged by parents as perceived by the child was predictive of less conflict among all dyads. Interestingly, the strongest relationship occurred between child's report of father's parenting practices and his/her perceived level of conflict with the father. The finding that parenting practices that promote parent-child bonding may also decrease ICD within families is noteworthy because ICD is above and beyond the usual conflict that normally occurs during adolescence. Moreover, adolescents of immigrant parents may face additional challenges such as acculturative stress and language barriers that are not faced by their peers of nonimmigrant parents, multiplying their vulnerability for parent-child alienation. This study consequently shows that parenting practices as hypothesized by the SDM can also benefit immigrant families to protect their adolescents against substance use.

Within parent-child dyads, the neglectful parenting style interacted with parenting practices to predict less conflict than practices under an authoritative parenting style. This was also true for the child's reports of his/her mother's parenting practices and perceived level of conflict with the mother. Guan also interacted with parenting practices to predict less conflict in both parent-child dyads and mother-child dyads. Child's report of parenting practices and guan separately and significantly predicted less conflict in both parent-child dyads and mother-child dyads. The neglectful parenting style in this case predicted less conflict rather than increase conflict as shown in previous relationships between acculturation gaps and conflict, and it was the only style that was significantly different from parenting practices under the authoritative parenting style. Results suggest that because the neglectful parenting style involves low

warmth and involvement and low supervision and strictness versus the high warmth/involvement and high supervision/strictness of the authoritative parenting style, this lack of parenting may result in fewer opportunities for conflict between parent and child. Lastly, guan also interacted with child's report of parenting practices to increase the effect of parenting practices on reducing conflict with increasing values for this Chinese-based parenting style. Further research is needed to explore this finding, but perhaps this may be due to the potentially positive attitudes held toward guan by the Chinese American students in this sample.

E. Strengths and Limitations of Research Study

The strengths of this research study include examining the parent-child dyad. The study allowed for three different measures for parent-child bonding and conflict separately: mean value within the parent-child dyad, child's perceived level with the mother, and child's perceived degree of with the father. It also measured perceptions of the mother and father separately. Parent-child dyads thus allowed for an assessment of which report, parent or child, on perceived bonding and conflict was more significant in predicting risk for alcohol use. Parent-child dyads also allowed for the measurement of actual gaps rather than gaps as perceived by the child only.

The measurement of all parenting styles, including guan, was another strength of this research study in considering a style that was culturally specific and separate from the Western-based conceptions of parenting styles. Additionally, this is the first known study that examined gaps in both Western values and behaviors concurrently with gaps in Asian values and behaviors to determine their relationships to intergenerational conflict within Asian American families. It was able to more clearly discriminate among the acculturation gaps that potentially caused ICD between parent and child.

Limitations also existed in this study, which included the small sample size of father-child dyads, which may be the reason behind the findings that the child's report of bonding and conflict with the father

were insignificant. Furthermore, due to the cross-sectional nature of data, neither causality nor the direction of potentially causal relationships could be determined. A convenience sample was drawn from three elementary schools so that the parents and adolescents surveyed may not be representative of the general population of Chinese American parent-child dyads. Measures on alcohol use were assessed with questionnaires, relying on self-reports by adolescents. Lastly, sampling occurred from public schools and one private elementary school, which excluded adolescents who did not attend regular elementary schools such as those that work and study, attend special schools, and dropped out and may be at higher risk for serious alcohol use and abuse.

VIII. CONCLUSION

This dissertation concludes with implications for public health to prevent adolescent substance use from the study's research findings, especially with regard to the development and cultural adaptation of family-based interventions; and recommendations for future research.

A. **Public Health Implications for Practice**

The aim of this research study was to identify potentially relevant deep structural level cultural factors that may influence parent-child bonding and ICD; and hypothesize the relationships of these factors to the constructs of the SDM, that served as the theoretical foundation for the family-based prevention program, GGC, for its future cultural adaptation. It determined how culture plays a role in yielding the targeted outcome of this family-based program, bonding between parent and child, to prevent adolescent alcohol use and abuse.

Several implications for public health practice then are presented here that focus on the development and/or cultural adaptations of family-based prevention programs for adolescent substance use and other problem behaviors. When developing and/or culturally adapting family-based prevention programs, it may be important to consider parenting styles along with parent-child bonding and/or parent-child conflict. For example, instructing families on parenting practices that promote parent-child bonding such as (1) opportunities for family involvement in activities and interactions; (2) degree of involvement and interaction; and (3) reinforcements for this involvement and interaction should be expanded to include parenting behaviors that result in an authoritative parenting style such as warmth. Authoritarian parenting styles, on the other hand, should be discouraged. Among Chinese American families, the strength of guan as a protective factor against alcohol use and conflict should be recognized and built upon.

The neglectful parenting style consistently showed to be the most harmful parenting style among the parenting styles. Families that engage in neglectful behaviors are most at risk for conflict and their

children engaging in alcohol use and other problem behaviors. Unfortunately, these families are also the most likely to be hard-to-reach. Prevention programs should focus on targeting the most vulnerable families for recruitment and retention, and tailor the programs to increase their participation, challenges and needs such as by changing the mode of implementation.

This study also assessed the strength of each factor, risk or protective, in its association with adolescent alcohol use, which can inform the future development and/or cultural adaptation of family-based prevention programs to target the more meaningful factor or both. In this case, the findings uncovered that both parent-child bonding and conflict are strongly predictive and interrelated. An effective approach may therefore be to address this specific type of conflict, ICD that occurs over the loss of traditional cultural values and behaviors, concurrently with encouraging practices for bonding among racial/ethnic minority and/or immigrant families. Moreover, considering the sources of conflict that result within families such as over the child's rapid assimilation and the adoption of Western values and norms, or over the child's loss of traditions, customs, and values from the countries of origin is critical. Rather than just understanding approaches to managing conflict, it may help parents to be more effective in engaging in parenting practices by allowing them to recognize potential causes for this conflict and their impact that goes beyond the normative conflict from adolescent development.

Finally, cultural adaptations of programs need to be based on theory. The theoretical framework developed for this study demonstrates the essential use of theory to identify those cultural influences that should be further explored. Evidence of influence on behaviors and outcomes from those cultural factors should be gathered before making adaptations. Moreover, this research study indicated that Western-based theories may be appropriate to use as well in racial/ethnic minority and immigrant families. Parenting practices that have been determined in past research studies to cause parent-child bonding remains true within Asian American families, and these practices that promote parent-child bonding may also decrease ICD to prevent adolescent substance use and other problem behaviors.

B. Recommendations for Further Research

While prevention occurs during adolescence so that understanding risk and protective factors with adolescents is appropriate, more studies are needed to understand the prevalence and incidence of alcohol and other drug use among Asian American adolescents and young adults. Furthermore, Asian American families that reside in ethnic enclaves and hard-to-reach are largely understudied. Most studies related to the problem of alcohol use and other problem behaviors have been conducted among university students that come from family backgrounds with parents of high socioeconomic status and educational levels. There exists a serious lack of understanding of the types of challenges that families within ethnic enclaves face in strengthening parent-child bonds, and how families can protect their children from engaging in alcohol use.

Among all dyads, the strongest relationship occurred between the child's report of father's parenting practices and perceived level of conflict with the father. More research is needed on the significance of the relationship with the father and the subsequent impact of the adolescent problem behaviors with female or male child (Trudeau et al., 2012). The female students in this study more often perceived their parents to be less authoritarian and neglectful, as well as engage in more parenting practices than the male students. This perhaps provides the rationale for why female students perceived a greater degree of bonding with parents than the male students, and slightly less ICD or conflict with their parents. Further exploration is needed to understand the cultural norms attitudes that parents hold toward parenting that may differ between female and male children.

Thirdly, acculturation scales that measure differences in Western behaviors and values between parent and child should also be included to understand more deeply the causes for conflict. It may be more important to measure the acculturation gap as a precursor for adolescent substance use and problem behaviors rather than just the degree of acculturation by the adolescents. Research should also examine more deeply the difference between guan and authoritarian parenting style to understand the reason why

guan was protective and authoritarian parenting style was not for risk of alcohol use. Surprisingly, guan interacted with acculturation gaps to be predictive of less conflict than gaps under the authoritative parenting style. The next step is to determine if guan still exerts the same protective effects on risk for alcohol use and parent-child conflict among non-Chinese American families. Further research is needed on parenting styles among Asian American adolescents, and in particular the Chinese-based parenting style, guan, and its protective effects against alcohol use and other problem behaviors.

Research should be expanded to examine the significance of locale such as assessing factors within the contextual environment of racial/ethnic minority and immigrant communities or ethnic enclaves that can serve as a buffer or protect against the disintegration and alienation of families, despite the challenges that immigrants face such as the ability of communities to supply opportunities for socioeconomic support and networks, cohesion, and participation for families. The environmental factors within an ethnic enclave may differ dramatically from other types of communities, and act to increase risk especially given that ethnic enclaves often serve as the first port-of-entry for recent immigrants. Families in ethnic enclaves are highly vulnerable population with lower socioeconomic status and educational levels (household income showed to increase risk for alcohol use and conflict within families), and given that countries such as China are undergoing rapid development that have significantly affected the social, cultural, and economic institutions, it is necessary to examine the process by which the interactions of social, cultural, and economic determinants of health within these communities may lead to the disruption of traditional family structures and roles, and thereby promote risk for alcohol abuse and other health risk behaviors among adolescents.

Unfortunately, Asian Americans are underrepresented in research. This research study demonstrates the significance of more studies that are comprehensive and examine the cultural context of risk and protective factors to culturally tailor or adapt interventions that have incorporated a thorough understanding of these relevant factors on adolescent substance abuse. At a minimum, family-based

prevention programs for Asian American adolescents should account for acculturation effects and involve culture-specific strategies such as reducing ICD between parents and their children to strengthen families.

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APPENDICES

APPENDIX A: Parent Recruitment Letters—English



180 W. Washington St.
Suite 1000
Chicago, IL 60602
Tel: 312-372-7070
Fax: 312-372-7171
www.asianhealth.org

September 6, 2011

Dear Parent or Guardian,

We need your help to understand how we can strengthen the bonds between parents and children. We have invited Haines, Healy, and St. Therese Chinese Catholic elementary schools to participate in a research study about the relationships between parents and their children, which will be conducted by the Asian Health Coalition in collaboration with the University of Illinois at Chicago (UIC). Data from this study will help us develop family-based programs and services to support parents in raising healthy and happy youth with bright futures.

Your household was selected to participate in this study because your child currently attends St. Therese Chinese Catholic School. Your child will be given a survey at school to fill out if you allow him/her to complete it. It should take about 15-20 minutes to complete. He/she will be asked about possible alcohol and tobacco use, perceived opportunities to be involved in family activities, relationships with family members, and other family-related questions. ***Please sign the enclosed parental permission form that states that you allow your child to complete the questionnaire, and return it with your child to his/her school by September 9, 2011***

In the next week, your child will receive a packet to take home to you, which will contain the questionnaire for you to complete. Please complete and return the questionnaire to your child's school. The questionnaire will take 25 to 30 minutes to complete. Your participation in this study is entirely voluntary. In appreciation for your participation, you will receive a \$20 Target gift card, and a DVD called *Creating Harmony* that was developed to provide families with information about how to create strong bonds and maintain harmony in the home. **You will also be entered for a raffle drawing to win a Kindle or a \$115 gift certificate to Jewel if you participate. One family from each school can win the prize.**

If you have any questions or concerns about this study, please contact me at 312-372-7070 ext. 229 or by email at meme@asianhealth.org, or you can contact the UIC faculty sponsor of this research study, Frederick Kviz, PhD, at 312-996-4889 or by email at fkviz@uic.edu. Thank you.

Sincerely yours,

Meme Wang

APPENDIX A (continued)



180 W. Washington St.
Suite 1000
Chicago, IL 60602
Tel: 312-372-7070
Fax: 312-372-7171
www.asianhealth.org

Date: September 30, 2011

Dear Parent or Guardian,

I recently wrote asking for your help to understand how families strengthen parent-child bonds to prevent their adolescents from engaging in substance abuse and other negative behaviors. Your participation in this research study, conducted by the Asian Health Coalition in collaboration with the University of Illinois at Chicago (UIC), will help us develop programs that strengthen our families and raise happy and healthy children with bright futures. Your household was selected to participate in this study because your child is a student at St. Therese Chinese Catholic School. We have invited Haines, Healy, and St. Therese Chinese Catholic elementary schools to participate in a research study.

There is a survey for you in this packet to complete at home. I ask that the parent who is most involved in the daily activities of raising the children in your household complete the survey, and return it to your child's school by **October 7, 2011**.

All of your answers will be kept confidential and will be used only for the purposes of this research. The results of the study will be reported in group form so that individual persons who have answered the questionnaire cannot be identified. Enclosed is a consent form that provides more information about how your privacy and confidentiality will be protected.

Your participation in this study is entirely voluntary. In appreciation for your participation, you will receive a \$20 Target gift card, and a DVD called *Creating Harmony* that was developed to provide families with information about how to create strong bonds and maintain harmony in the home. **To receive your gift card, please fill out the Parent Contact Information Form & Informed Consent Form for Parents, and return them to your child's school with your completed survey. You will also be entered for a raffle drawing to win a Kindle or a \$115 gift certificate to Jewel if you participate. One family from each school can win the prize.**

If you have any questions or concerns about this study, please contact me at 312-372-7070 ext 229 or by email at meme@asianhealth.org, or you can contact the faculty sponsor of this research study, Frederick Kviz, PhD, at 312-996-4889 or by email at fkviz@uic.edu. Thank you.

Sincerely yours,

A handwritten signature in black ink that reads "Meme Wang". The signature is written in a cursive, flowing style.

Meme Wang, PhD Candidate
University of Illinois at Chicago

APPENDIX A (continued)



180 W. Washington St.
Suite 1000
Chicago, IL 60602
Tel: 312-372-7070
Fax: 312-372-7171
www.asianhealth.org

Date: October 17, 2011

Dear Parent or Guardian,

If you already have mailed your completed questionnaire, I would like to thank you for your participation. If you have not yet completed your questionnaire, please do so as soon as possible so that we can include your answers in the study. If by chance you did not receive the first questionnaire or it got misplaced, we have enclosed a replacement. It would be very helpful to have your completed questionnaire returned by **October 21, 2011** to your child's school.

The purpose of this study, conducted by the Asian Health Coalition in collaboration with the University of Illinois at Chicago (UIC), is to understand how families strengthen parent-child bonds to prevent their adolescents from engaging in substance abuse and other negative behaviors. We have invited Haines, Healy, and St. Therese Chinese Catholic elementary schools to participate in a research study. We need your help to develop programs that strengthen our families and raise happy and healthy children with bright futures.

The questionnaire will take 25-30 minutes to complete. Most of the questions can be answered by simply circling the code number for your answer. Please have the parent who is most involved in the daily activities of raising the children in your household fill out the survey. All of your answers will be kept confidential and will be used only for the purposes of this research. The results of the study will be reported in group form so that individual persons who have answered the questionnaire cannot be identified.

Your participation in this study is entirely voluntary. In appreciation for your participation, you will receive a \$20 Target gift card, and a DVD called *Creating Harmony* that was developed to provide families with information about how to create strong bonds and maintain harmony in the home. **To receive your gift card, please fill out the Parent Contact Information Form and Informed Consent Form for Parents, and return them to your child's school with your completed survey.** You will also be entered for a raffle drawing to win a Kindle or a \$115 gift certificate to Jewel if you participate. One family from each school can win the prize.

If you have any questions or concerns about this study, please contact me at 312-372-7070 ext 229 or by email at meme@asianhealth.org or you can contact the faculty sponsor of this research study, Frederick Kviz, PhD, at 312-996-4889 or by email at fkviz@uic.edu. Thank you.

Sincerely yours,

A handwritten signature in black ink that reads "Meme Wang". The signature is written in a cursive, flowing style.

Meme Wang, PhD Candidate
UIC School of Public Health

APPENDIX A (continued)



180 W. Washington St.
Suite 1000
Chicago, IL 60602
Tel: 312-372-7070
Fax: 312-372-7171
www.asianhealth.org

Date: October 28, 2011

Dear Parent or Guardian,

We have sent you a questionnaire previously that asks you about how you promote bonding between you and your child. As of today, we have not received your completed survey.

If you already have mailed your completed questionnaire, I would like to thank you for your participation. If you have not yet completed your questionnaire, please do so as soon as possible so that we can include your answers in the study.

The purpose of this study is to understand how families strengthen parent-child bonds to prevent their adolescents from engaging in substance abuse and other negative behaviors.

We recognize how busy you must be and greatly appreciate you taking the time to complete this questionnaire. If by chance you did not receive a questionnaire or it got misplaced, we have enclosed a replacement. It would be very helpful to have you questionnaire returned to us by **November 11, 2011** to your child's school.

The questionnaire will take 25-30 minutes to complete. Most of the questions can be answered by simply circling the code number for your answer. Please have the parent who is most involved in the daily activities of raising the children in your household fill out the survey.

All of your answers will be kept confidential and will be used only for the purposes of this research. The results of the study will be reported in group form so that individual persons who have answered the questionnaire cannot be identified.

Your participation in this study is entirely voluntary. In appreciation for your participation, you will receive a \$20 Target gift card, and a DVD called *Creating Harmony* that was developed to provide families with information about how to create strong bonds and maintain harmony in the home. **To receive your gift card, please fill out the Parent Contact Information Form and Informed Consent Form for Parents, and return them to your child's school with your completed survey. You will also be entered for a raffle drawing to win a Kindle or a \$115 gift certificate to Jewel if you participate. One family from each school can win the prize.**

If you have any questions or concerns about this study, please contact me at 312-372-7070 ext 229 or by email at meme@asianhealth.org or you can contact the faculty sponsor of this research study, Frederick Kviz, PhD, at 312-996-4889 or by email at fkviz@uic.edu. Thank you.

Sincerely yours,

Meme Wang

Meme Wang, PhD Candidate
UIC School of Public Health

APPENDIX B: Parent Recruitment Letters—Simplified Chinese



180 W. Washington St.
Suite 1000
Chicago, IL 60602
Tel: 312-372-7070
Fax: 312-372-7171
www.asianhealth.org

2011年9月6日

尊敬的家长或监护人：

为了解亚裔家庭如何能更好地改善父母与子女的亲情关系我们需要您的帮助。越来越多父母与子女之间的分离，通常会发生在子女青春期时，它在移民家庭中更为明显。在美国的亚裔家长在培养子女的过种中面临着独特的文化挑战，遗憾的是，亚裔美国人人数量较少，以至研究人员对于亚裔美国家庭如何预防其青少年子女的抑郁症以及物质滥用所知甚少。2000年全美的吸毒与健康调查结果显示，12至17岁之间的亚裔青少年中，有7.1%回应说在过去的一个月中喝过酒，2006年这一比例上升到19.7%。六年来77.5%增长速度令人震惊。

现我们特邀Haines、Healy、 St. Therese Chinese Catholic小学参加一项由亚裔健康联盟（Asian Health Coalition）与伊利诺大学芝加哥分校（UIC）合作进行的有关如何改善父母与子女亲情关系的研究。

如果您同意自己的子女参与本次研究，请签学生问卷调查家长同意书，并在2011年9月9日前返回到您子女的学校。您的子女会得到一份在学校填写的学生问卷调查，问题包括他/她是否有喝酒、抽烟行为，是否认为自己有机会参加家庭活动，自己与家人的关系，以及其它一些与家庭相关的问题。完成学生问卷调查需要15至20分钟左右。

在下周，您的子女将接到一份文件，里面包含有关此项研究需您完成的家长问卷，请将已完成的家长问卷交回到您的子女的学校，问卷调查需要25至30分钟完成。您参与本次研究调查完全是自愿。为感谢您的参与，您将收到20美元的Target礼券。您还将收到一张名为“创造和谐家庭”的DVD，该光盘提供了有关如何建立亲情关系和维系和谐家庭气氛的资讯。而且，您可参与抽奖活动赢得Kindle或价值115美元Jewel礼券，每一个学校一个家庭可获此奖励。

如您对此研究有任何问题或疑惑，请与我联系312-372-7070转229或email地址 meme@asianhealth.org，或者您可以联系赞助此项研究的教授Frederick Kviz博士，电话312-996-4889或email地址 fkviz@uic.edu。诚挚的感谢

Meme Wang（王米米：公共卫生硕士）

谨啟 *Meme Wang*

APPENDIX B (continued)



180 W. Washington St.
Suite 1000
Chicago, IL 60602
Tel: 312-372-7070
Fax: 312-372-7171
www.asianhealth.org

Date: September 30, 2011

尊敬的家长或监护人：

我最近已写信邀请您自愿参与我们的一项研究，由于该研究能帮助我们了解家庭如何改善父母与子女的亲情关系和更好的预防青少年子女接触烟酒和其它可能的不良行为。您参与的此项研究是由亚裔健康联盟（Asian Health Coalition）与伊利诺大学芝加哥分校（UIC）合作进行。此项研究将帮助我们发展以家庭为基础的计划，培养健康和快乐的孩子。您的家庭之所以被选入本次的研究是由于您的子女是Healy Elementary School学生，我们已经邀请Haines、Healy、St. Therese Chinese Catholic这几所小学参与本次研究。

在这文件袋中一份在家里填写的家长问卷，请家里主要负责子女日常生活的那位父母来完成问卷的填写。并请October 7, 2011前交给您子女带回学校。

您所提供的信息是保密的、仅只用于研究目的。研究结果以总结全体的问卷资料来报告，因此不会分辨出参与问卷的个人身份。现随信附上一份同意书，其中提供了更多有关我们将如何保护您的隐私与保密的信息。

参与本次研究完全是自愿。为感谢您的参与，您将收到价值20美元的Target礼券，以及称为“创建和谐家庭”的DVD，该光盘提供了有关如何建立亲情关系和维系家庭和谐气氛的知识。为方便寄出您的礼券，请填写父母的联系方式表和家长知情同意书，并连同您已经完成的家长问卷调查交给您子女带回学校。而且，您也可参与抽奖活动赢得Kindle或价值115美元Jewel礼券，每一个学校会有一个家庭可获得此奖励。

如您对此研究有任何问题或疑惑，请与我联系312-372-7070转229或电邮 meme@asianhealth.org，或者您可以联系赞助此项研究的教授Frederick Kviz博士，电话312-996-4889或电邮 fkviz@uic.edu。

诚挚的感谢！

Meme Wang

Meme Wang（王米米：伊利诺大学芝加哥校区公共卫生博士候选人） 谨啟

APPENDIX B (continued)



180 W. Washington St.
Suite 1000
Chicago, IL 60602
Tel: 312-372-7070
Fax: 312-372-7171
www.asianhealth.org

Date: October 17, 2011

尊敬的家长或监护人：

如果您已经寄出了完成的问卷，非常感谢您的参与。如果您还没有填妥问卷，请您尽快完成以便我们可以包括您的答案在研究结果之中。如果您没有收到、或者找不到第一份问卷，信中已附了另外一份。如果您能完成并在 **October 21, 2011** 前交给您子女带回学校，这将对我们的研究有很大帮助。

本研究是由亚裔健康联盟 (Asian Health Coalition) 与伊利诺大学芝加哥分校 (UIC) 合作进行，目的是为了解亚裔美国家庭如何改善父母与子女的亲情关系和更好的预防青少年子女接触烟酒和其它不良行为。我们邀请Haines、Healy、St. Therese Chinese Catholic这几所小学参与本次研究。这项研究的数据可帮助我们发展以家庭为基础的计划，培养健康和快乐的孩子。

完成问卷需大约25-30分钟完成，大部份问题只需要在您的选项号码上画圈，请家里主要负责子女日常生活的那位父母来完成本问卷。您所提供的信息是保密的、仅只用于研究目的。研究结果以总结全体的问卷资料来报告，因此不会分辨出参与问卷的个人身份。

参与本次研究完全是自愿。为感谢您的参与，您将收到价值20美元的Target礼券，以及称为“创建和谐家庭”的DVD，该光盘提供了有关如何建立亲情关系和维系家庭和谐气氛的知识。为方便寄出您的礼券，请填写父母的联系方式表和知情同意书，并连同您已经完成的家长问卷调查交给您子女带回学校。而且，您也可参与抽奖活动赢得Kindle或价值115美元Jewel礼券，每一个学校会有一个家庭可获得此奖励。

如您对此研究有任何问题或疑惑，请与我联系312-372-7070转229或电邮 meme@asianhealth.org，或者您可以联系赞助此项研究的教授Frederick Kviz博士，电话312-996-4889或电邮 fkviz@uic.edu。

诚挚的感谢！

Meme Wang

Meme Wang (王米米：伊利诺大学芝加哥校区公共卫生博士候选人) 谨啟

APPENDIX B (continued)



180 W. Washington St.
Suite 1000
Chicago, IL 60602
Tel: 312-372-7070
Fax: 312-372-7171
www.asianhealth.org

Date: October 28, 2011

尊敬的家长或监护人：

我们以前给您寄过一份问卷，了解您如何改善父母与子女的亲情关系。到目前为止，我们还没有收到您完成的问卷。如果您已经寄出了完成的问卷，非常感谢您的参与。如果您还没有填写问卷，请尽快完成，亚裔美国人数较少，我们需要您的帮助。

我们了解您可能是非常的繁忙，我们真心感谢您能利用宝贵的时间来完成问卷。

如果您没有收到、或者找不到问卷，信中已附了另外一份。如果您能完成并在**November 11, 2011** 前交给您子女带回学校，这将对我们的研究有很大帮助。

问卷需大约25-30分钟完成，大部份问题只需要在您的选项号码上画圈，请家里主要负责子女日常生活的那位父母来完成本问卷。您所提供的信息是保密的、仅只用于研究目的。研究结果以总结全体的问卷资料来报告，因此不会分辨出参与问卷的个人身份。

参与本次研究完全是自愿。为感谢您的参与，您将收到价值20美元的Target礼券，以及称为“创建和谐家庭”的DVD，该光盘提供了有关如何建立亲情关系和维系家庭和谐气氛的知识。为方便寄出您的礼券，请填写父母的联系方式表和知情同意书，并连同您已经完成的家长问卷调查交给您子女带回学校。而且，您也可参与抽奖活动赢得Kindle或价值 115 美元 Jewel 礼券，每一个学校会有一个家庭可获得此奖励。

如您对此研究有任何问题或疑惑，请与我联系312-372-7070转229或电邮 meme@asianhealth.org，或者您可以联系赞助此项研究的教授Frederick Kviz博士，电话312-996-4889或电邮 fkviz@uic.edu。

诚挚的感谢！

Meme Wang

Meme Wang (王米米：伊利诺大学芝加哥校区公共卫生博士候选人) 谨啟

APPENDIX C: Parent Recruitment Postcard—English and Simplified Chinese

About a few weeks ago, we sent you the first questionnaire that asks you about your relationship with your children in the United States. Then about a week ago, we sent you a replacement questionnaire. As of today, we have not received your completed survey. Your household was selected to participate in the study because in your household there is child who is currently a student at Haines, Healy, or St. Therese Chinese Catholic elementary school. If you have already returned the questionnaire, please accept our sincere thanks. If not, please do so today. **We need your questionnaire.** If you did not receive the questionnaire, or it got misplaced, please contact me anytime at 312-372-7070 ext 229, and I will get another one in the mail to you immediately. Your participation will be appreciated with compensation of \$20 Target gift card, and a DVD called "Creating Harmony" that was developed to provide families with information about how to create strong bonds and maintain harmony in the home. You will also be entered into a raffle prize of a Kindle or a \$115 gift card to Jewel. Thank you.

亲爱的家长或监护人:数周前,我们发给您了第一份问卷,希望您帮助我们了解您与您子女生活在美国的亲情关系。大约一周以前,我们又寄给您了第二份。到目前为止,我们还没有收到您所完成的问卷。您的家庭之所以被选择在这次研究是因为您的孩子目前是 Haines、Healy、St. Therese Chinese Catholic 小学的学生。如果您已寄回问卷,请接受我们真心的感谢。如果还没有,请您今天完成,我们需要您的帮助和问卷。如果您没有收到问卷,或有遗失,请拨电话 312-3727070 转分机 229 与我联系,我会立即邮寄另一份给您。为感谢您的参与,您将收到 20 美元的 Target 礼券。您还将收到一张名为“创造和谐家庭”的 DVD,该光盘提供了有关如何建立亲情关系和维系家庭和谐气氛的知识。而且,您也可参加抽奖活动赢得 Kindle 或价值 115 美元 Jewel 礼券,每一个学校会有一个家庭可获得此奖励。诚挚的感谢!

Meme Wang

Meme Wang 王米米

APPENDIX D: Recruitment Fliers—English and Simplified Chinese

F A L L 2 0 1 1

Understanding the Cultural Influences of Parent-child Bonding

A research study presented by Meme Wang, PhD Candidate
University of Illinois at Chicago

Survey Highlights

This study is designed to understand parent-child bonding on:

- Adolescents' initiation and use of alcohol and tobacco
- Mental health
- Academic success such as grades, missed school days, and tardiness.

Students will complete questionnaire at school, and parents will fill out a similar questionnaire at home.

Incentives

Parents who participate in the survey will receive

- Target \$20
- *Creating Harmony* DVD

Additionally, participating parents will be entered into a raffle to win either a Kindle e-book reader, or a \$115 gift card to Jewel, and students will be entered into a raffle for a \$50 Hollister gift card if both parent and child complete their survey.



Please return the attached permission form for your child to his or her homeroom teacher as soon as possible

Survey Instructions

1. Complete parent survey
2. Complete parent informed consent form if you have not done so already
3. Complete parent contact form so that we can send you a gift to compensate you for your time
4. Place survey and forms into yellow large envelope provided
5. Give the envelope to your child to return to his/her homeroom teacher

For More Information Contact:

Meme Wang
(312) 372 – 7070 Ext. 229
meme@asianhealth.org
Asian Health Coalition



APPENDIX D (continued)

2011 季节

课题研究 了解文化对父母与子女间亲情关系的影响

一项由伊利诺利芝加哥大学分校 (UIC) 博士候选人王米米提出的研究课题

研究重点

了解父母与子女间亲情关系对下列情况的影响:

- 对诱发青少年喝酒和抽烟的影响
- 对青少年心理健康的影响
- 对青少年学业成就的影响比如学习成绩, 缺课

研究方法

- 学生在学校完成学生问卷, 家长在家完成家长问卷

参与研究奖励

父母

- 20 美元的 Target 礼券
- “创建和谐家庭”的 DVD
- 参加抽奖活动赢得 Kindle 的 e-book reader 或价值 115 美元 Jewel 礼券
- 如父母和子女都完成了问卷调查, 可以参加抽奖活动赢得 50 美元的 Hollister store 的礼券



请家长签寄给您的同意您子女参与问卷调查的同意书, 并让您子女尽快交回给他或她的班主任老师

参与研究指南

- 第一步: 填写家长问卷调查表
- 第二步: 如您还没有填写家长知情同意书的话, 请填写“家长知情同意书”
- 第三步: 为方便我们寄出您的礼券, 请填写“父母联系方式表”
- 第四步: 将您已经完成的问卷和同意书放进我们提供给您的黄色大信封中
- 第五步: 将黄色大信封交给您的子女带给他或她的班主任老师

欲了解有关课题研究的更多信息
请联系

亚裔健康联盟王米米
电话 312-372-7070 转 229 或
电邮 meme@asianhealth.org

 ASIAN
HEALTH
COALITION

APPENDIX E: Parent Permission and Informed Consent Forms—English and Simplified Chinese

Leave box empty - For office use only

**University of Illinois at Chicago
Research Information and Consent for Participation in Social Behavioral Research**

Understanding Cultural Influences on Parent-Child Bonding to Prevent Substance Abuse Among Adolescents

You are being asked to participate in a research study. Researchers are required to provide a consent form such as this one to tell you about the research, to explain that taking part is voluntary, to describe the risks and benefits of participation, and to help you to make an informed decision. You should feel free to ask the researchers any questions you may have.

Principal Investigator Name and Title: Meme Wang, MPH, Doctoral Candidate
Department and Institution: Community Health Sciences, School of Public Health
Address and Contact Information: 1603 West Taylor Street, Chicago, IL 60612-4394
Sponsor: Asian Health Coalition

Why am I being asked?

You are being asked to be subjects in a research study to understand bonding between parents and their children. Parent-child bonding is important to prevent youth from engaging in substance abuse or other negative behaviors. You have been asked to participate in the research because your child attends Haines, Healy, or St. Therese Chinese Catholic School. Therefore, you are eligible to participate.

Your participation in this research is voluntary. Your decision whether or not to participate will not affect your current or future dealings with the University of Illinois at Chicago. **If you decide to participate, you are free to withdraw at any time without affecting that relationship.**

Approximately 1530 subjects may be involved in this research at UIC through three different Chicago Public Schools (CPS) elementary schools in Chicago's Chinatown and surrounding neighborhoods of Armour Square and Bridgeport.

What is the purpose of this research?

The purpose of this research study is to understand parent-child bonding to prevent their adolescents from engaging in substance abuse.

What procedures are involved?

There are two different surveys. One survey is for you, called the parent survey. The other survey is for your child. It is student survey. The student survey will be administered at school.

APPENDIX E (continued)

**芝加哥伊利诺大学
参与社会行为研究的研究信息及同意书**

研究课题:了解文化对父母与子女间亲情关系的影响以便预防亚裔美国青少年的物质滥用

现您受邀参与一项研究,因此研究人员必须向您提供同意书,介绍其研究的内容和目的,并解释参与是自愿的,及告之参与研究的风险和益处,以帮助您作出知情情况下是否参与研究的决定。请随便问研究人员任何您可能有的问题。

主研究员姓名和职位: Meme Wang (王米米), 公共卫生硕士, 博士候选人
机构和部门: UIC公共卫生学院, 社区卫生科学系
联系地址: 1603 West Taylor Street, Chicago, IL 60612-4394
赞助人: 亚裔健康联盟 (Asian Health Coalition)

为什么邀请我参与这项研究?

您受邀参与的此项研究是为了解亚裔美国家庭在改善父母与子女间亲情关系过程中所面临的独特文化挑战。密切的亲情关系对预防青少年物质滥用和不良的行为起到至关重要的作用。您之所以受到邀请,是因为您的孩子在Haines, Healy, or St. Therese Chinese Catholic学习, 因此您合格参与本次研究。

参与本次研究是自愿的。无论您是否决定参与,您的决定都不会影响到您现在以及将来同芝加哥伊利诺大学的任何关系。如果您决定参与,您也有自由随时退出,也不会影响这关系。

大约有来自芝加哥中国城华埠广场和Bridgeport附近的不同公立小学的1530个研究对象参与该项研究计划。

本次研究的目的是什么?

本次研究的目的是为了确定和了解亚裔美国家庭在改善父母与子女间亲情关系预防其青少年子女物质滥用过程中所面临的独特文化挑战。

本次研究涉及到哪些步骤?

本次研究包括两个不同的问卷调查,一个是家长问卷调查,由父母完成的,另一个是学生问卷调查,由您的子女完成的,学生问卷调查将由学生所在的学校管理。

APPENDIX E (continued)

Student Survey

Your child will also be given a survey at school to fill out if you allow him/her to complete it. This survey should take about 15-20 minutes to complete. He/she will be asked about possible alcohol and tobacco use, perceived opportunities to be involved in family activities, relationships with family members, and other family-related questions.

There is a *Parental Permission Form For Student* attached to this document. If you allow your child to complete the survey, please complete the *Parental Permission Form for Student* and return it to school with your child. After this form is received, your child still needs to give his/her assent to participate before he/she can take the student survey.

Parent Survey

Your child will be given the parent survey to bring home to you. Your survey should take about 25-30 minutes to complete. The survey is to be completed at home if you consent to take it. Once you have completed the survey, please return it along with the *Informed Consent Form for Parents* to your child's school.

You can complete the parent survey even if you do not wish to allow your child to complete the student survey at school. You can also decide not to participate in the parent survey and still allow your child to take the student survey at school. Lastly, you and your child do not have to participate in this study.

What are the potential risks and discomforts?

A risk of this research is a loss of privacy (revealing to others that you are taking part in this study) or confidentiality (revealing information about you to others to whom you have not given permission to see this information). However, to the best of our knowledge, the things you and your child will be doing for this research study have no more risk of harm than you and your child would experience in everyday life. Potential discomforts may include providing information on family relationships, ethnic relationships, and possibly other sensitive information.

Are there benefits to taking part in the research?

You may not directly benefit from participation in the research. There are also no direct benefits from your child participating in this study. This study is designed to learn more about parent-child bonding among families to prevent adolescent substance abuse and other delinquent behaviors. The study results may be used to help other people in the future.

What other options are there?

Participation in this study is entirely voluntary. You can complete the parent survey even if you do not wish to allow your child to complete the student survey at school. You can also decide not to participate in the parent survey and still allow your child to take the student survey at school. Lastly, you and your child do not have to participate in this study.

APPENDIX E (continued)

学生问卷调查

如果您同意自己的子女参与本次问卷调查，您的子女会得到一份在学校填写的学生问卷调查。完成学生问卷调查需要25至30分钟左右。问题包括他/她是否有喝酒、抽烟行为，是否认为自己有机会参加家庭活动，自己与家人的关系，以及其它一些跟家庭相关的问题。

该文件后面附有一份学生问卷调查家长同意书。如您同意自己的子女参与这次学生问卷调查，请填写好该同意书并且让您的子女带回学校。同时我们还要取得您子女本人的同意，然后才能让您的子女参与这次学生问卷调查。

家长问卷调查

您的子女将带家长问卷调查表给您，完成家长问卷调查需要25至30分钟左右。如果您同意参与本次问卷调查，请在家里完成问卷，然后将家长问卷调查及填写好的家长知情同意书用已贴上邮票的回邮信封邮寄回给我们。

您可以完成家长问卷，即使您不想让您的子女完成学生问卷。您还可以决定不完成家长问卷，但允许您的子女完成学生问卷。当然，您和您的子女也可以都不参与这次问卷调查。

参与本次研究会会有什么潜在的风险和不安？

本研究的风险是透露了自己的私人信息（暴露了您是本次研究的被调查者）或保密信息（有关您的信息在您未授权下被洩露给他人）。然而，就我们所知的，您和您的子女参与这研究不会增加您们日常生活更多的损害风险。潜在的不安可能包括提供关于家庭关系、族群关系，以及其他敏感信息。

参与本次研究有哪些益处？

您的参与可能不会直接得益。您子女的参与也没有直接的得益。本研究的目的是为了进一步了解在美国的亚裔家庭的亲情关系，以预防青少年物质滥用和其他犯罪行为。研究结果可用于将来帮助像您一样的人。

还有什么其它选择？

您可以完成家长问卷，即使您不想让您的子女完成学生问卷。您还可以决定不完成家长问卷，但允许您的子女完成学生问卷。当然，您和您的子女也可以都不参与这次问卷调查。

APPENDIX E (continued)

What about privacy and confidentiality?

The people who will know that you and your child are research subjects are members of the research team. Otherwise, information about you and your child will only be disclosed to others with your written permission, or if necessary to protect your rights or welfare or if required by law. All information will remain confidential.

The form that you will be asked to complete with your contact information to receive your incentive for participating will be separated from the questionnaire, and stored separately from the questionnaire in a locked file cabinet. Your questionnaire and your child's questionnaire will also be stored in a locked file cabinet. Only the researchers will know the location of the keys to both cabinets. Any information that might identify you will be taken off the questionnaire.

Your questionnaire and your child's questionnaire will be assigned a random number so that when your data is entered into the computer. There will be no names or other information that can identify you and your child in the database. The computer will be locked by a password that only the researchers will know.

When the results of the research are published or discussed in conferences, no information will be included that would reveal you or your child's identity. Presentations of the data collected may be given at participating elementary schools. However, all information will be aggregated and not reported by individual. No information will be presented that can identify you and your child.

What are the costs for participating in this research?

There are no costs to you and your child for participating in this research.

Will I be reimbursed for any of my expenses or paid for my participation in this research?

Yes, you will be compensated with a \$20 Target gift card for your time. You will also receive a DVD, called *"Creating Harmony"* that was developed to provide families with information about how to create strong bonds and maintain harmony in the home. You will also be entered for a raffle drawing to win a Kindle or a \$115 gift certificate to Jewel if you participate. One family from each school can win the prize.

Can I withdraw or be removed from the study?

If you decide to participate, you are free to withdraw your consent and discontinue participation at any time. You do not need to answer any questions on the parent survey that you feel uncomfortable with, or complete the entire questionnaire and return it.

Your child is free to withdraw and discontinue at any time as well. He/she will not need to answer any questions on the student survey that he/she feels uncomfortable with, or complete the entire questionnaire and return it.

APPENDIX E (continued)

关于隐私和保密

只有我们的研究成员唯一知道您和您的子女参与本次调查研究。除此而外，其他任何人，没有您的书面同意都不会获知您和您的子女的任何信息。我们只有在法律要求、或者需要保护您的权益和利益的前提下，才会透露您和您的子女的个人信息，否则，一切信息都是严格保密。

为方便我们寄出感谢您参与此次调查的奖励，所填写的父母联系方式表会被单独存放在锁起来的文件柜中。您和您子女所完成的问卷调查也都会存放在单独锁起来的文件柜中，即个人联系方式表和问卷调查是单独保密分开存放，只有我们研究成员才有文件柜的钥匙，问卷调查上不会保留任何可能会透露您身份的信息。

您和您子女的问卷将被分配一个随机号码，以便把数据输入电脑中，数据库不会记录任何可能会透露您和您的子女身份的名字或其它信息。我们的电脑有密码保护，只有我们研究成员才知道密码。

当研究结果在学术会议上发表或讨论时，有关您和您子女的身份的信息不会被透露。研究收集的数据可能会在参与研究的小学或机构作介绍。然而，所有资料将会以团体而非个人的方式报告。没有任何资料可以识别您和您的子女。

参与本次研究有什么费用？

您和您的孩子参与这项研究毋须付出任何费用。

参与本次研究有什么报酬？

是的，为感谢您的参与，您将收到20美元的Target礼券。您还将收到一张名为“创造和谐家庭”的DVD，该光盘提供了有关如何建立亲情关系和维系和谐家庭气氛的资讯。而且，您可参与抽奖活动赢得Kindle或价值115美元Jewel礼券，每一个学校一个家庭可获此奖励。

我可否撤回或撤销我的参与？

如果您决定参与，您有权随时撤销您的同意书和终止参与。您也可以毋须回答家长问卷调查上任何让您感到不舒服的问题，或也可以毋须完成整个问卷调查并将其返回。

您的子女也有权随时撤销和终止参与。他/她也可以毋须回答学生问卷调查上任何让他/她感到不舒服的问题，或也可以毋须完成整个问卷调查并将其返回。

APPENDIX E (continued)

Who should I contact if I have questions?

Parents please be aware that under the Protection of Pupil Rights Act, 20 U.S.C. Section 1232(c)(1)(A), you have the right to review a copy of the questions asked of or materials that will be used with your students. If you would like to do so, you should contact Meme Wang (please see below) to obtain a copy of the questions or materials.

Contact the researcher Meme Wang at 312-372-7070 ext 229 or by email addresses: meme@asianhealth.org or lwang33@uic.edu. Or you may contact the research assistant, Xiao Yan Qiu, at 312-714-5270 or by email address: xqiu4@uic.edu.

- if you have any questions about this study or your part in it,
- if you have questions, concerns or complaints about the research.

You may also contact, Frederick Kviz, PhD, Professor of Community Health Sciences at the School of Public Health. He is Meme Wang's advisor and faculty sponsor of the study. His phone number is 312-996-4889. His email address is fkviz@uic.edu.

What are my rights as a research subject?

If you feel you have not been treated according to the descriptions in this form, or if you have any questions about your rights as a research subject, including questions, concerns, complaints, or to offer input, you may call the Office for the Protection of Research Subjects (OPRS) at 312-996-1711 or 1-866-789-6215 (toll-free) or e-mail OPRS at uicirb@uic.edu.

Remember:

Your participation in this research is voluntary. Your decision whether or not to participate will not affect your current or future relations with the University. If you decide to participate, you are free to withdraw at any time without affecting that relationship.

APPENDIX E (continued)

如果有问题我应该和谁联系？

根据美国小学生权益保护法令第20条第1232(c)(1)(A)款的规定，父母有权要求审阅自己子女所要回答的问题、或者相关的材料。如果您希望履行此权力，请联系Meme Wang（王米米）以获得一份学生问卷调查或者相关材料。其联系方式如下：

联系研究员：Meme Wang（王米米），电话312-372-7070分机229或email地址：meme@asianhealth.org或lwang33@uic.edu。
或联系研究助理：邱萧燕，电话 312-714-5270 或email地址：xqiu4@uic.edu。

- 如果您对此研究，或您的参与，有任何疑问，
- 如果您对此研究有任何意见或投诉。

您也可以联系，公共卫生学院社区卫生科学FrederickKviz,PhD博士。他是Meme Wang的博士导师和赞助这项研究的教授，联系电话号码：312-996-4889，email地址：fkviz@uic.edu。

我作为研究对象有哪些权利？

如果您感觉自己所受到的对待方式与本文所描述的方式有出入，或者是您对自己作为研究对象所拥有的权力有任何问题、疑惑、抱怨、或者建议，请联系研究对象保护办公室，电话为312-996-1711或者1-866-789-6215（免费），email地址：uicirb@uic.edu。

请记住：

参与本次研究是自愿的。无论您是否决定参与，您的决定都不会影响到您现在以及将来同芝加哥伊利诺大学的任何关系。如果您决定参与，您也有自由随时退出，也不会影响响这关系。

APPENDIX E (continued)

INFORMED CONSENT FORM FOR PARENTS

If you consent to participate in this study by completing the parent survey, please return this form with the survey that you filled out with your child to his/her school.

Signature of Subject or Legally Authorized Representative

I have read (or someone has read to me) the above information. I have been given an opportunity to ask questions and my questions have been answered to my satisfaction. I agree to participate in this research. I will be given a copy of this signed and dated form.

Signature

Date

Printed Name

APPENDIX E (continued)

家长知情同意书

如果您同意参与本次研究、请完成家长问卷调查，然后将家长问卷调查及填写好的该家长知情同意书用已贴上邮票的回邮信封邮寄回给我们。

研究对象的签署或其合法授权代表

我已经阅读过（或者是其他人已经向我读过）以上信息。我获得了提问的机会，我的问题也得到了满意的回答。我同意参与本次研究，我将得到这一份经签名并注明日期的同意副本。

签名

日期

正楷填写名字

APPENDIX E (continued)

PARENTAL PERMISSION FORM FOR STUDENT

Your child will also be given a survey at school to fill out if you allow him/her to complete it. This survey should take about 15-20 minutes to complete. He/she will be asked about possible alcohol and tobacco use, perceived opportunities to be involved in family activities, relationships with family members, and other family-related questions.

If you allow your child to participate in this study, please return this form with your child to his/her school.

I give my consent for _____ to take the student survey.
[Please PRINT Child's First and Last Name]

Parent's Signature

Date

Printed Name

Please return this form to the school by _____.
9/9/11

PLEASE FILL OUT BELOW:

Name: _____

Address: _____

Email address: _____

Phone number: _____

APPENDIX E (continued)

学生问卷调查家长同意书

如果您同意自己的子女参与本次问卷调查，您的子女会得到了一份在学校填写的学生问卷调查。完成学生问卷调查需要15至20分钟左右。问题包括他/她是否有喝酒、抽烟行为，是否认为自己有机会参加家庭活动，自己与家人的关系，以及其它一些跟家庭相关的问题。

如果您同意自己的子女参与这次学生问卷调查，请填写好该学生问卷调查家长同意书，并让您的子女带回到学校。

我谨同意_____参与本次学生问卷调查。
(请工整写下您子女的名和姓)

父母签名

日期

正楷填写父母名字

请_返_回_此_表_迟_于_____

9/9/11

家庭地址 _____

电子邮件地址: _____

电话: _____

APPENDIX F: Student Assent Form—English and Simplified Chinese

STUDENT ASSENT FORM

You are being asked to participate in a research study. This study is about how families can help prevent their youth is using alcohol and other drugs. We would like to ask you about possible alcohol and tobacco use, perceived opportunities to be involved in family activities, relationships with family members, and other family-related questions.

Your name will not be on the survey and your teacher and parents will not see your answers. If any questions make you uncomfortable or would not like to answer, you do not have to answer them. This survey is not for a grade. There are no wrong answers and you will not get in trouble for any of your answers.

You will be given a survey that will take about 15-20 minutes to complete. There are no more than minimal risks involved with the survey. There is a small possibility that your answers to the survey questions could identify you, but your information will be kept safe and confidential.

You do not have to take these surveys if you do not want to or do not feel comfortable, and you may stop taking the survey at any time. If you choose not to participate you will be given another activity to do while you wait for others to finish their survey.

If you have any questions regarding this survey please let a teacher know. If you feel you have not been treated according to the descriptions in this form, or if you have any questions about your rights as a research participant including questions, concerns, or complaints, you may call the Office for the Protection of Research Subjects (OPRS) at 312- 996-1711 or 1-866-789-6215 (toll-free) or e-mail OPRS at uicirb@uic.edu.

Signing this document means that the information above has been explained to you in a language that you understand, and that you voluntarily agree to participate.

Student Signature

Date

Name (Please Print)

Signature of Witness

Date

Name of Witness (Please Print)

APPENDIX F: (continued)

学生问卷调查学生同意书

你是被邀请参与在我们的一项研究，该研究是关于家庭怎样帮助青少年预防接触烟酒和其它不良行为。我们将问你有关喝酒和抽烟行为，你参与家庭活动的机会，你与家人的关系，以及其它一些跟家庭相关的问题。

你的名字将不会出现在本次研究的问卷调查上，你的老师和家长将看不到你的回答。假如问卷调查中的问题你感到不舒服或是不喜欢，你可以不必回答。本次问卷调查不打分，也没有错误的回答，并且你的任何回答都不会给你带来任何的麻烦。

请考虑用15至20分钟的时间完成学生问卷调查，参与本次调查，只有很小的可能据你的回答识别你外，其它你没有任何的风险，你的信息将被安全和保密的保存。

如你不想或感到不舒服的话，你可以不参与或在任何时候终止参与问卷调查。如果你选择不参与，在其他同学回答问卷调查时，你将被安排做其它活动。

如果您对此研究有任何疑问，请让你的老师知道。假如你感到自己所受到的对待与本文所描述的方式有出入，或者是你对自己作为研究对象所拥有的权力有任何问题、疑惑、抱怨、或者建议，请联系研究对象保护办公室，电话为312-996-1711或者1-866-789-6215（免费），email地址：uicirb@uic.edu。

签该同意书意味着上述的信息你已经在你懂的语言下理解了，并且你自愿同意参与。

 学生签名

 日期

 学生正楷填写名字

 见证人签名

 日期

 见证人正楷填写名字

APPENDIX G: Parent Questionnaire—English

ST. THERESE

SPN:

Parent Questionnaire

Please take twenty-five to thirty minutes to complete this survey to help us understand your relationship with your child. When answering questions about your relationship with your child, please refer to the **oldest child** that attends St. Therese Chinese Catholic School in the 6th, 7th, or 8th grade.

PLEASE CIRCLE ONE NUMBER FOR EACH QUESTION UNLESS OTHERWISE INSTRUCTED.

Adolescent Alcohol and Tobacco Use

1. For each of the following statements about adolescent alcohol and tobacco use, do you think it is true or not?

	<u>True</u>	<u>False</u>	<u>Don't Know</u>
a. Alcohol and tobacco are frequent starting points for children's drug use. They open the "gate" to use other drugs	1	2	12
b. Starting the use of alcohol or other drugs at an early age greatly increases the risk a child will develop a drug problem.	1	2	12
c. The legal drinking age of alcohol in the United States is 18 years old	1	2	12
d. Children are no different from adults in terms of how drugs physically affect them	1	2	12
e. The majority of adult smokers began smoking before the age of 18 years old	1	2	12

2. For each of the following statements, how often do you think families of your racial/ethnic group that live in your community allow underage children drink alcohol under adult supervision...

	<u>Never</u>	<u>Rarely</u>	<u>Sometimes</u>	<u>Often</u>	<u>Almost Always</u>
a. On special occasions?.....	1	2	3	4	5
b. At dinner?	1	2	3	4	5
c. On the weekends?.....	1	2	3	4	5
d. Any time in the home?	1	2	3	4	5
e. At any place?.....	1	2	3	4	5

APPENDIX G (continued)

3. How do you think families of your racial/ethnic group that live in your community feel about underage children drinking alcohol? Do you think they are...

Strongly opposed.....1
 Somewhat opposed.....2
 Not concerned.....3
 Somewhat favor.....4
 Strongly favor.....5

4. Do you think the rules for drinking alcohol are **stricter for boys**, **stricter for girls**, or **the same for both boys and girls** among families in your racial/ethnic group that live in your community?

Stricter for boys.....1
 Stricter for girls.....2
 The same for boys and girls.....3

5. How do you think families in your racial/ethnic group that live in your community feel about underage children smoking cigarettes? Do you think they are...

Strongly opposed.....1
 Somewhat opposed.....2
 Not concerned.....3
 Somewhat favor.....4
 Strongly favor.....5

6. Do you think the rules for smoking cigarettes are **stricter for boys**, **stricter for girls**, or **the same for both boys and girls** among families of your racial/ethnic group that live in your community?

Stricter for boys.....1
 Stricter for girls.....2
 The same for boys and girls.....3

Culture

7. For each of the following statements about values, how strongly do you agree or disagree with it?

	Strongly Disagree	Disagree	Neither Agree/ Disagree	Agree	Strongly Agree
a. Failure in your job or career will not bring shame to the family.....	1	2	3	4	5
b. Educational and career achievements are not the most important priorities to achieve in life	1	2	3	4	5

APPENDIX G (continued)

	<u>Strongly Disagree</u>	<u>Disagree</u>	<u>Neither Agree/ Disagree</u>	<u>Agree</u>	<u>Strongly Agree</u>
c. People should avoid making their ancestors unhappy	1	2	3	4	5
d. People should not cause trouble	1	2	3	4	5
e. Family is not the main source of trust and dependence	1	2	3	4	5
f. People should not control expressions of their emotions	1	2	3	4	5
g. Modesty is an important quality to have	1	2	3	4	5
h. People should be humble and modest	1	2	3	4	5
i. Young people should be able to confront their elders	1	2	3	4	5
j. Elders may not have more wisdom than younger persons	1	2	3	4	5

8. For each of the following statements about values, how strongly do you agree or disagree with it?

	<u>Strongly Disagree</u>	<u>Disagree</u>	<u>Neither Agree/ Disagree</u>	<u>Agree</u>	<u>Strongly Agree</u>
a. Without competition, it is not possible to have a good society	1	2	3	4	5
b. Winning is everything	1	2	3	4	5
c. I enjoy working in situations involving competition with others	1	2	3	4	5
d. Being a unique individual is important to me	1	2	3	4	5
e. I am a unique person, separate from others	1	2	3	4	5
f. I enjoy being unique and different from others	1	2	3	4	5
g. I would do what would please my family, even if I detested that activity	1	2	3	4	5
h. Aging parents should live with their children in their home	1	2	3	4	5

APPENDIX G (continued)

	<u>Strongly Disagree</u>	<u>Disagree</u>	<u>Neither Agree/ Disagree</u>	<u>Agree</u>	<u>Strongly Agree</u>
i. I would sacrifice an activity that I enjoy very much if my family did not approve of it.....	1	2	3	4	5
j. The well-being of my coworkers is important to me	1	2	3	4	5
k. It is important to me to maintain harmony within my group	1	2	3	4	5
l. It is important to discuss with close friends and get their ideas before making a decision ...	1	2	3	4	5

9. For each of the following statements, how often does it apply to you in terms of the culture of **your ethnic/racial group**?

	<u>Never</u>	<u>Rarely</u>	<u>Sometimes</u>	<u>Often</u>	<u>Almost Always</u>
a. I like to listen to music of my ethnic/racial group.....	1	2	3	4	5
b. I attend social functions with people from my ethnic/racial group.....	1	2	3	4	5
c. I eat traditional foods of my ethnic/racial group.....	1	2	3	4	5
d. I read magazines or newspapers of my ethnic/racial group.....	1	2	3	4	5
e. I speak the native language of my ethnic/racial group with members of my family	1	2	3	4	5
f. I speak the native language of my ethnic/racial group with my friends	1	2	3	4	5
g. I have acquaintances with people who are in my ethnic/racial group.....	1	2	3	4	5
h. I feel accepted by people who are in my ethnic/racial group	1	2	3	4	5
i. I am totally comfortable with people who are in my ethnic/racial group	1	2	3	4	5

APPENDIX G (continued)

10. For each of the following statements, how often does it apply to you with **American culture**?

	<u>Never</u>	<u>Rarely</u>	<u>Sometimes</u>	<u>Often</u>	<u>Almost Always</u>
a. I like to listen to American music.....	1	2	3	4	5
b. I attend social functions with American people	1	2	3	4	5
c. I eat American foods.....	1	2	3	4	5
d. I read American magazines or newspapers.....	1	2	3	4	5
e. I speak English with members of my family	1	2	3	4	5
f. I speak English with my friends	1	2	3	4	5
g. I have acquaintances with people who are American.....	1	2	3	4	5
h. I feel accepted by people who are American.....	1	2	3	4	5
i. I am totally comfortable with people who are American.....	1	2	3	4	5

Goals For Your Child

11. For each of the following statements, how important to you is each goal for your child in the future?

	<u>Not at all Important</u>	<u>A little Important</u>	<u>Somewhat Important</u>	<u>Important</u>	<u>Very much Important</u>
a. My child will have people comment often about how attractive he/she looks	1	2	3	4	5
b. My child will help people in need	1	2	3	4	5
c. My child will have a job with high social status.....	1	2	3	4	5
d. My child will share his/her life with someone he/she will love.....	1	2	3	4	5
e. My child will be admired by many people	1	2	3	4	5
f. My child will look back on his/her life as meaningful	1	2	3	4	5

APPENDIX G (continued)

	<u>Not at all Important</u>	<u>A little Important</u>	<u>Somewhat Important</u>	<u>Important</u>	<u>Very much Important</u>
g. My child will have people who care about him/her.....	1	2	3	4	5
h. My child will be energetic and full of life.....	1	2	3	4	5
i. My child will make the world a better place.....	1	2	3	4	5
j. My child will be relatively free from sickness	1	2	3	4	5
k. My child will know and accept who he/she is....	1	2	3	4	5
l. My child will be financially successful	1	2	3	4	5
m. My child will do something that brings much recognition.....	1	2	3	4	5
n. My child's physical image will be one others find appealing.	1	2	3	4	5

Parenting Practices

12. For each of the following statements about parenting practices, how often do you do each of the activities with your child?

	<u>Never</u>	<u>Rarely</u>	<u>Sometimes</u>	<u>Often</u>	<u>Almost Always</u>
a. I involve my child with family decisions about fun activities.....	1	2	3	4	5
b. I involve my child with family decisions about work activities	1	2	3	4	5
c. I find ways to involve my child with family activities	1	2	3	4	5
d. I play sports, hobbies, or games with my child	1	2	3	4	5
e. I am available in the evenings to spend with my child	1	2	3	4	5
f. I go with my child to the library	1	2	3	4	5
g. I praise my child such as when he/she helps out around the house	1	2	3	4	5

APPENDIX G (continued)

	<u>Never</u>	<u>Rarely</u>	<u>Sometimes</u>	<u>Often</u>	<u>Almost Always</u>
h. I give my child rewards such as privileges and money when he/she helps out around the house.....	1	2	3	4	5
i. I praise my child when he/she does well in school	1	2	3	4	5
j. I give my child rewards such as privileges and money when he/she does well in school.....	1	2	3	4	5

13. For each of the following statements on parenting practices, how often do you do each with your child?

	<u>Never</u>	<u>Rarely</u>	<u>Sometimes</u>	<u>Often</u>	<u>Almost Always</u>
a. My child can count on me to help him/her out if he/she has some kind of problem.....	1	2	3	4	5
b. I push my child to do the best that he/she can do	1	2	3	4	5
c. I push my child to think independently.....	1	2	3	4	5
d. I help my child with his/her schoolwork if there is something he/she does not understand	1	2	3	4	5
e. When I want my child to do something, I explain why.....	1	2	3	4	5
f. When my child gets a poor grade in school, I push him/her to try harder.....	1	2	3	4	5
g. When my child gets a good grade in school, I praise him/her.....	1	2	3	4	5

14. Which of the following statements best describes how many of your child's friends you know?

I don't know any of my child's friends	1
I know a few of my child's friends	2
I know some of my child's friends	3
I know a lot of my child's friends	4
I know all my child's friends	5

APPENDIX G (continued)

15. For each of the following statements, how often do these activities happen in your family?

	<u>Never</u>	<u>Rarely</u>	<u>Sometimes</u>	<u>Often</u>	<u>Almost Always</u>
a. I spend time just talking to my child	1	2	3	4	5
b. My family does something fun together.	1	2	3	4	5

16. In a typical week, what is the latest you usually allow your child to stay out on **SCHOOL NIGHTS (Monday-Thursday)**?

Not allowed out	1
Earlier than 9 PM	2
9:00 PM to 10:59 PM	3
11:00 PM or later	4
As late as he/she wants	5

17. In a typical week, what is the latest you usually allow your child to stay out on **FRIDAY or SATURDAY NIGHT**?

Not allowed out	1
Earlier than 9 PM	2
9:00 to 10:59 PM	3
11:00 PM or later	4
As late as he/she wants	5

18. For each of the following statements, how much do you know...

	<u>Never</u>	<u>Rarely</u>	<u>Sometimes</u>	<u>Often</u>	<u>Almost Always</u>
a. Where your child goes at night?	1	2	3	4	5
b. What your child does with his/her free time?	1	2	3	4	5
c. Where your child is most afternoons after school?	1	2	3	4	5

19. For each of the following statements about parenting, how often do you...?

	<u>Never</u>	<u>Rarely</u>	<u>Sometimes</u>	<u>Often</u>	<u>Almost Always</u>
a. Have to know who your child's friends are before he/she can do things with them	1	2	3	4	5
b. Explain to your child what you expect of him/her	1	2	3	4	5

APPENDIX G (continued)

	<u>Never</u>	<u>Rarely</u>	<u>Sometimes</u>	<u>Often</u>	<u>Almost Always</u>
c. Tell your child that he/she must follow your expectations	1	2	3	4	5
d. Continually warn your child about using drugs	1	2	3	4	5
e. Continually warn your child about having sex	1	2	3	4	5
f. Let your child spend time with friends you think are a good influence	1	2	3	4	5
g. Watch your child's behaviors before you give him/her freedom	1	2	3	4	5
h. Pay attention to whether or not your child listens to you before you give him/her more freedom	1	2	3	4	5
i. Tell your child what you think is best for him/her	1	2	3	4	5

Bonding

20. Each of the following statements asks about the bonding between you and your child. How often does your child...

	<u>Never</u>	<u>Rarely</u>	<u>Sometimes</u>	<u>Often</u>	<u>Almost Always</u>
a. Say that he/she feels close to you?	1	2	3	4	5
b. Share his/her thoughts and feelings with you?	1	2	3	4	5
c. Tell you his/her problems and troubles?	1	2	3	4	5
d. Want to be like you?	1	2	3	4	5
e. Get along with you?	1	2	3	4	5

APPENDIX G (continued)

21. For each of the following statements about your relationship with your child, how strongly do you agree or disagree?

	<u>Strongly Disagree</u>	<u>Disagree</u>	<u>Agree</u>	<u>Strongly Agree</u>	<u>Don't Know</u>
a. My child and I agree on the aims or goals in life	1	2	3	4	12
b. My child and I agree on what things are important in life	1	2	3	4	12
c. My child and I agree on the friends that he/she makes	1	2	3	4	12
d. My child and I agree on the amount of time we spend together	1	2	3	4	12
e. My child and I agree on how we show our affection for each other.	1	2	3	4	12
f. My child and I generally talk things over together	1	2	3	4	12
g. My child and I agree on how he/she should behave	1	2	3	4	12
h. I am satisfied with my relationship with my child	1	2	3	4	12

Child's Academic Performance

22. During the past 12 months, how would you describe your child's grades in school?

Mostly A's	1
Mostly B's	2
Mostly C's	3
Mostly D's	4
Mostly F's	5
None of these grades	6
Not sure	7

APPENDIX G (continued)

Background

23. Are you the mother, father, a stepparent, or other guardian of the child?

Mother1
 Father2
 Stepmother3
 Stepfather4
 Other guardian.....5

24. Did you fill this questionnaire out with your spouse or partner?

Yes1
 No2

25. How many children do you have? _____

26. Do your parents live with you and your children?

Yes1
 No2

27. Do extended family members (not including your parents) live with you and your children?

Yes1
 No2

28. What year were you born? _____

Year

29. Were you born in the United States?

Yes1
 No2

a. If you were **NOT** born in the U.S., in which country were you born? _____b. If you were **NOT** born in the U.S., in what year did you move to here? _____

APPENDIX G (continued)

30. What is your generational status?

I immigrated to the United States	1
First generation (child of naturalized immigrant parents)	2
Second generation (child of parents who were born in the U.S.)	3
Third generation or greater	4

31. What is your current marital/partner status?

Married/partnered	1
Divorced	2
Separated	3
Widowed, or	4
Have never been married?	5

32. Which of the following choices best represents your race/ethnicity? **Circle all that apply.**

American Indian or Alaska Native	1
Asian/Asian American	2
Chinese/Chinese American	3
Korean/Korean American	4
Pilipino/Pilipino American	5
Vietnamese/Vietnamese American	6
White, non-Latino	7
Black or African American	8
Hispanic or Latino	9
Native Hawaiian or Pacific Islander	10
Other (<i>please specify</i>)	11

APPENDIX G (continued)

33. If you are married/partnered, which of the following choices best represents the race of your marital partner (husband, wife, or partner)? Circle all that apply.

American Indian or Alaska Native.....	1
Asian/Asian American	2
Chinese/Chinese American	3
Korean/Korean American	4
Pilipino/Pilipino American	5
Vietnamese/Vietnamese American.....	6
White, non-Latino	7
Black or African American	8
Hispanic or Latino	9
Native Hawaiian or Pacific Islander	10
Other (please specify)	11

34. How much school have you completed? Check one for the highest level completed or degree received.

12 th grade or less	1
High school graduate or equivalent.....	2
Some college but no degree.....	3
Associate's degree (academic or occupational)	4
Bachelor's degree	5
Master's degree	6
Professional school degree (such as M.D., J.D., D.D.S.).....	7
Doctorate (such as Ph.D., Ed.D, Dr.P.H.)	8

35. Which of the following best describes your household income (total income from members over 18 years old residing in your home including child support) this current year?

\$20,000 or less.....	1
\$20,001 to \$30,000.....	2
\$30,001 to \$40,000.....	3
\$40,001 to \$50,000.....	4
\$50,001 or \$60,000.....	5
\$60,001 or more.....	6

Please return the questionnaire, informed consent form, and parent contact form to your child's school.

Thank you for your time!

APPENDIX H: Parent Questionnaire—Simplified Chinese

ST. THERESE

SPN:

家长问卷调查-华人

请用 25 至 30 分钟的时间完成这份问卷调查，以帮助我们了解您和您子女的关系。回答问题时，请依据您最大的在 ST. THERESE CHINESE CATHOLIC SCHOOL 学习的 6 或 7 或 8 年级的子女关系为准。

除特别说明，每个问题请只画圈选一个选项。

青少年喝酒、抽烟

1. 下列有关青少年喝酒、抽烟、吸毒问题的说法，您是同意还是不同意？

	<u>同意</u>	<u>不同意</u>	<u>不知道</u>
a. 喝酒和抽烟经常是孩子吸毒的起点， 他们为孩子吸毒开启了“方便之门”.....	1	2	12
b. 小小年纪就开始喝酒、抽烟会极大增加 一个孩子染上毒瘾的可能.....	1	2	12
c. 美国喝酒合法年龄是 18 岁	1	2	12
d. 吸毒对孩子身体的影响 与成人没有什么不同	1	2	12
e. 大多数成人抽烟者在 18 岁以前抽烟	1	2	12

2. 您认为您社区内的华人家庭在下面每种场合下，多大程度上允许未到年龄的子女（21 岁以下）在成年人监控下喝酒

	<u>从来没有</u>	<u>很少</u>	<u>有时</u>	<u>经常</u>	<u>几乎总是</u>
a. 特别场合下?.....	1	2	3	4	5
b. 晚餐时?.....	1	2	3	4	5
c. 周末时?.....	1	2	3	4	5
d. 在家里任何时间?.....	1	2	3	4	5
e. 任何地点?.....	1	2	3	4	5

APPENDIX H (continued)

3. 您认为您社区内的华人家庭对于未到年龄的子女（21 岁以下）喝酒持什么态度？您认为他们会...

强烈反对.....	1
部份反对.....	2
无所谓.....	3
接受只在家里喝酒.....	4
基本接受.....	5

4. 您认为在您社区内的华人家庭更倾向于严格控制男孩、还是女孩喝酒, 还是两者相同?

对男孩更严格.....	1
对女孩更严格.....	2
男孩和女孩相同.....	3

5. 您认为您社区内的华人家庭对于未到年龄的子女（18 岁以下）抽烟持什么态度？您认为他们会...

强烈反对.....	1
部份反对.....	2
无所谓.....	3
接受只在家里抽烟.....	4
基本接受.....	5

6. 您认为您社区内的华人家庭更倾向于严格控制男孩、还是女孩抽烟, 还是两者相同?

对男孩更严格.....	1
对女孩更严格.....	2
男孩和女孩相同.....	3

APPENDIX H (continued)

文化

7. 下面的问题是关于文化的，您在多大程度同意或者不同意？

	<u>强烈 不同意</u>	<u>不同意</u>	<u>不同意 也不反对</u>	<u>同意</u>	<u>强烈 同意</u>
a. 事业的失败并不会给家庭蒙羞.....	1	2	3	4	5
b. 比较生活而言 人生中学业和事业成功不是最重要.....	1	2	3	4	5
c. 人不能让前辈不满.....	1	2	3	4	5
d. 人不应该引起麻烦.....	1	2	3	4	5
e. 家庭不是信任和依靠的主要来源.....	1	2	3	4	5
f. 人们不应该控制自己情绪.....	1	2	3	4	5
g. 谦虚是一种十分重要的美德.....	1	2	3	4	5
h. 人应该谦虚谨慎.....	1	2	3	4	5
i. 年青人应该可以同长辈对抗.....	1	2	3	4	5
j. 年长者没有年青者聪明.....	1	2	3	4	5

8. 下面的问题是关于文化的，您在多大程度同意或者不同意？

	<u>强烈 不同意</u>	<u>不同意</u>	<u>不同意 也不反对</u>	<u>同意</u>	<u>强烈 同意</u>
a. 没有竞争,不可能有一个好的社会.....	1	2	3	4	5
b. 赢者为王.....	1	2	3	4	5
c. 我喜欢在有竞争的环境中工作.....	1	2	3	4	5
d. 作为独特的个人是重要的.....	1	2	3	4	5
e. 与其他人比,我是独特的.....	1	2	3	4	5
f. 我喜欢与众不同.....	1	2	3	4	5

APPENDIX H (continued)

	<u>强烈 不同意</u>	<u>不同意</u>	<u>不同意 也不反对</u>	<u>同意</u>	<u>强烈 同意</u>
g. 为了我的家庭我愿意做我不喜欢的事... 1	2	3	4	5	
h. 老年人应该与他们的子女同住.....1	2	3	4	5	
i. 可为我的家庭放弃我喜欢的事.....1	2	3	4	5	
j. 同伴的快乐对我是重要的.....1	2	3	4	5	
k. 与人友善对我是重要的.....1	2	3	4	5	
l. 做决定前与好朋友讨论并获得建议 是重要的.....1	2	3	4	5	
9. 下面这些关于中国文化的描述，在多大程度上适用于您？					
	<u>从来没有</u>	<u>很少</u>	<u>有时</u>	<u>经常</u>	<u>几乎总是</u>
a. 我喜欢听中国音乐.....1	2	3	4	5	
b. 我参加华人的社交活动.....1	2	3	4	5	
c. 我吃传统中式食物.....1	2	3	4	5	
d. 我阅读中文杂志、报纸、书籍.....1	2	3	4	5	
e. 我跟家人讲中文.....1	2	3	4	5	
f. 我跟朋友讲中文.....1	2	3	4	5	
g. 我有华人朋友.....1	2	3	4	5	
h. 我感觉自己被华人所接受.....1	2	3	4	5	
i. 我与华人相处十分舒服.....1	2	3	4	5	
10. 下面这些关于美国文化的描述，在多大程度上适用于您？					
	<u>从来没有</u>	<u>很少</u>	<u>有时</u>	<u>经常</u>	<u>几乎总是</u>
a. 我喜欢听美国音乐.....1	2	3	4	5	
b. 我参加美国人的社交活动.....1	2	3	4	5	

APPENDIX H (continued)

	<u>从来没有</u>	<u>很少</u>	<u>有时</u>	<u>经常</u>	<u>几乎总是</u>
c. 我吃美国食物	1	2	3	4	5
d. 我阅读美国中文杂志、报纸、书籍	1	2	3	4	5
e. 我跟家人讲英文	1	2	3	4	5
f. 我跟朋友讲英文	1	2	3	4	5
g. 我有美国朋友	1	2	3	4	5
h. 我感觉自己被美国人所接受	1	2	3	4	5
i. 我与美国人相处十分舒服	1	2	3	4	5

对孩子未来的目标

11. 下面每一种关于您孩子未来目标的描述，对您来说重要性如何？

	<u>完全不重要</u>	<u>有点重要</u>	<u>颇为重要</u>	<u>重要</u>	<u>非常重要</u>
a. 人们夸奖我的孩子有吸引人的外表	1	2	3	4	5
b. 我的孩子会帮助有需要的人	1	2	3	4	5
c. 我的孩子有一个社会地位高的工作	1	2	3	4	5
d. 我的子女与一个他/她爱的人生活	1	2	3	4	5
e. 许多人羡慕我的孩子	1	2	3	4	5
f. 我的子女在回顾过去时， 认为自己的人生完整而有意义	1	2	3	4	5
g. 我的子女将被人关心、照顾和支持	1	2	3	4	5
h. 我的孩子充满生机和活力	1	2	3	4	5
i. 我的孩子让世界更加美好	1	2	3	4	5
j. 我的孩子比较健康	1	2	3	4	5
k. 我的孩子了解并接受自己	1	2	3	4	5
l. 我的子女是富足的	1	2	3	4	5

APPENDIX H (continued)

	<u>完全不重要</u>	<u>有点重要</u>	<u>颇为重要</u>	<u>重要</u>	<u>非常重要</u>
m. 我的孩子做一些带来荣誉的事.....	1	2	3	4	5
n. 我的孩子外表很吸引人.....	1	2	3	4	5

管教子女方式

12. 下面每个描述的情景，发生的几率是？

	<u>从来没有</u>	<u>很少</u>	<u>有时</u>	<u>经常</u>	<u>几乎总是</u>
a. 我让孩子在家里 参与决定做什么有趣活动.....	1	2	3	4	5
b. 我让孩子在家里 参与决定做什么家务活.....	1	2	3	4	5
c. 我让孩子在家里参与家庭活动.....	1	2	3	4	5
d. 我和孩子一起玩游戏、 进行体育活动等.....	1	2	3	4	5
e. 我晚间和孩子待在一起.....	1	2	3	4	5
f. 我和孩子一起去图书馆.....	1	2	3	4	5
g. 孩子在家里帮着做家务时， 我会给予表扬.....	1	2	3	4	5
h. 孩子在家里帮着做家务时， 我会给 特别待遇和金钱等奖励.....	1	2	3	4	5
i. 孩子学习成绩好时， 我会给予表扬.....	1	2	3	4	5
j. 孩子学习成绩好时，我会给 特别待遇和金钱等奖励.....	1	2	3	4	5

13. 下面每个描述的情景，发生的几率是？

	<u>从来没有</u>	<u>很少</u>	<u>有时</u>	<u>经常</u>	<u>几乎总是</u>
a. 我的孩子遇到问题时， 指望我的帮助.....	1	2	3	4	5

APPENDIX H (continued)

	<u>从来没有</u>	<u>很少</u>	<u>有时</u>	<u>经常</u>	<u>几乎总是</u>
b. 我促使孩子尽力做最好.....	1	2	3	4	5
c. 我促使孩子独立思考.....	1	2	3	4	5
d. 如果学校作业孩子有不会的地方， 我会帮着做.....	1	2	3	4	5
e. 我要孩子做什么事情时， 我会解释为什么.....	1	2	3	4	5
f. 我的孩子学习成绩不好时， 我会促使他/她更加努力.....	1	2	3	4	5
g. 我的孩子学习成绩好时， 我会给予表扬.....	1	2	3	4	5
14. 您对您孩子的朋友了解多少？					
我不知道孩子的任何朋友.....	1				
我知道孩子的几个朋友.....		2			
我知道孩子的一些朋友.....			3		
我知道孩子的很多朋友.....				4	
我知道孩子的所有朋友.....					5
15. 下面每个描述的情景，发生的机会是？					
	<u>从来没有</u>	<u>很少</u>	<u>有时</u>	<u>经常</u>	<u>几乎总是</u>
a. 我仅仅花时间跟孩子谈话.....	1	2	3	4	5
b. 我们一家人一起做些有趣的事.....	1	2	3	4	5
16. 常规情况下，第二天要上学的晚间（周一至周四晚间），您允许孩子在外边最晚待到什么时候？					
不允许出去.....	1				
晚间 9:00 点以前.....		2			
晚间 9:00 至 10:59 之间.....			3		
晚间 11:00 点或更晚.....				4	
孩子想待多晚就多晚.....					5

APPENDIX H (continued)

17. 常规情况下，周五和周六晚间您允许孩子在外面最晚待到什么时候？

不允许出去.....	1
晚间 9:00 点以前.....	2
晚间 9:00 至 10:59 之间.....	3
晚间 11:00 点或更晚.....	4
孩子想待多晚就多晚.....	5

18. 下面每个情景，您多大程度上想知道...

	<u>不想</u>	<u>有点</u>	<u>有时</u>	<u>经常</u>	<u>很想</u>
a. 您的孩子在哪过夜?.....	1	2	3	4	5
b. 您的孩子空闲时间干什么?.....	1	2	3	4	5
c. 您的孩子下午放学后大部份时间在哪?...1	2	3	4	5	

19. 下面是关于父母教育，发生的机会是？

	<u>从来没有</u>	<u>很少</u>	<u>有时</u>	<u>经常</u>	<u>几乎总是</u>
a. 在我的孩子和朋友做什么事情前， 我必须知道孩子的朋友是谁.....	1	2	3	4	5
b. 我向孩子解释清楚我对他/她的期望是什么.....	1	2	3	4	5
c. 我告诉我的孩子他/她必须遵从我的期望.....	1	2	3	4	5
d. 我一直不断地告诫孩子毒品危害.....	1	2	3	4	5
e. 我一直不断地告诫孩子性行为危害.....	1	2	3	4	5
f. 我会同意我的孩子跟我认为对孩子 会有好影响的朋友们在一起.....	1	2	3	4	5
g. 在给予孩子更多自由前， 我会观察孩子举止行为.....	1	2	3	4	5

APPENDIX H (continued)

	<u>从来没有</u>	<u>很少</u>	<u>有时</u>	<u>经常</u>	<u>几乎总是</u>
h. 在给予孩子更多自由前, 我会观察他/她是否听我的话.....1	2	3	4	5	
i. 我告诉孩子我认为什么对他/她最好.....1	2	3	4	5	

亲情

20. 下面问题是关于您和您子女的亲情, 您的子女多长时间...

	<u>从来没有</u>	<u>很少</u>	<u>有时</u>	<u>经常</u>	<u>几乎总是</u>
a. 说他/她感觉与您关系很近?.....1	2	3	4	5	
b. 和您分享他/她的想法和感觉?.....1	2	3	4	5	
c. 告诉他/她的问题和麻烦?.....1	2	3	4	5	
d. 想和您一样?.....1	2	3	4	5	
e. 和您相处融洽?.....1	2	3	4	5	

21. 下面问题是关于您同子女的关系, 您在多大程度同意或者不同意?

	<u>强烈 不同意</u>	<u>不同意</u>	<u>同意</u>	<u>强烈 同意</u>	<u>不 知道</u>
a. 我和我的孩子生活的目标、 目的意见一致.....1	1	2	3	4	12
b. 我和我的孩子对生活 重要问题的看法一致.....1	1	2	3	4	12
c. 我和我的孩子对交什么朋友的看 法一致.....1	1	2	3	4	12
d. 我和我的孩子对我们相处的时间意 见一致.....1	1	2	3	4	12
e. 我和我的孩子在如何表达我们 彼此间的情感上意见一致.....1	1	2	3	4	12
f. 我和我的孩子通常情况下, 互相商 量事情.....1	1	2	3	4	12

APPENDIX H (continued)

	强烈 不同意	不同意	同意	强烈 同意	不 知道
g. 我和我的孩子对行为处事意见一致.....1	2	3	4	12	
h. 我满意我和孩子的关系.....1	2	3	4	12	

孩子学业表现

22. 在过去的 12 个月中,您怎样描述您孩子在学校的成绩

很多 A.....1	
很多 B.....2	
很多 C.....3	
很多 D.....4	
很多 F.....5	
都不是.....6	
不肯定.....7	

背景资料

23. 您是孩子的母亲、父亲、继父母、还是其他监护人?

母亲.....1	
父亲.....2	
继母.....3	
继父.....4	
其他监护人.....5	

24. 您是和您的配偶(伴侣)一起完成的本问卷调查吗?

是.....1	
否.....2	

25. 您有几个子女? _____

APPENDIX H (continued)

26. 您的父母和您及您的子女住在一起吗?
- 是.....1
- 否.....2
27. 您们有其他亲属和您及您的子女住在一起吗?
- 是.....1
- 否.....2
28. 您的出生年? _____
年
29. 您是否出生于美国?
- 是.....1
- 否.....2
- a. 如果否, 您出生于哪个国家? _____
- b. 您哪年移民美国? _____
30. 您是第几代移民?
- 我移民到美国.....1
- 第一代移民 (我是父母移民入籍的孩子).....2
- 第二代移民 (我的父母出生在美国).....3
- 第三代或更晚.....4
31. 您的婚姻状况?
- 已婚.....1
- 离异.....2
- 分居.....3
- 丧偶.....4
- 从未结婚.....5

APPENDIX H (continued)

32. 您是什么种族的人? 在相应的画圈

美洲印第安人或者阿拉斯加土著	1
亚裔.....	2
华裔.....	3
韩裔.....	4
菲律宾裔.....	5
越裔.....	6
白人,非拉丁裔	7
黑人或者非洲裔美国人.....	8
墨西哥或者拉丁裔.....	9
夏威夷土著或者太平洋岛民.....	10
其它(详细说明).....	11

33. 如果您已婚, 您的配偶是什么种族的人? 在相应的画圈

美洲印第安人或者阿拉斯加土著	1
亚裔.....	2
华裔.....	3
韩裔.....	4
菲律宾裔.....	5
越裔.....	6
白人,非拉丁裔	7
黑人或者非洲裔美国人.....	8
墨西哥或者拉丁裔.....	9
夏威夷土著或者太平洋岛民.....	10
其它(详细说明).....	11

APPENDIX H (continued)

34. 您的教育程度? 请选择一个您所接受的最高教育程度

高中以下	1
高中毕业或者相当于高中毕业	2
读过大学,但没有学位	3
专科学位(学术或职业教育)	4
学士学位	5
硕士学位	6
专业学位(例如医学博士、法学博士、牙医博士)	7
博士学位(例如哲学博士、教育博士、公共卫生博士)	8

35. 去年您的家庭收入(请包括住在您家中所有 18 岁以上成员的总收入, 包括儿童补助) 为多少?

\$20,000 或以下	1
\$20,001 至\$30,000	2
\$30,001 至\$40,000	3
\$40,001 至\$50,000	4
\$50,001 至\$60,000	5
\$60,001 或以上	6

请将此问卷调查表、知情同意书和父母联系表交回到您孩子的学校

谢谢!

APPENDIX I: Student Questionnaire—English

ST. THERESE

SPN:

Student Questionnaire

Please take fifteen to twenty minutes to complete this survey to help us understand your relationship with your parents.

PLEASE CIRCLE ONE NUMBER FOR EACH QUESTION UNLESS OTHERWISE INSTRUCTED.

Relationship with Parents

1. For each of the following statements, how often does it happen in your family?

	<u>Never</u>	<u>Rarely</u>	<u>Sometimes</u>	<u>Often</u>	<u>Almost Always</u>
a. My parents involve me with the family decisions about fun activities.....1	2	3	4	5	
b. My parents involve me with the family decisions about work activities.....1	2	3	4	5	
c. My parents find ways to involve me with family activities.....1	2	3	4	5	
d. My parents play sports, hobbies, or games with me1	2	3	4	5	
e. My parents are available in the evenings to spend with me1	2	3	4	5	
f. My parents go with me to the library.....1	2	3	4	5	
g. My parents express their approval of me when I help out around the house1	2	3	4	5	
h. My parents give me rewards such as privileges and money when I help out around the house.....1	2	3	4	5	
i. My parents express their approval of me when I do well in school1	2	3	4	5	
j. My parents give me rewards such as privileges and money when I do well in school1	2	3	4	5	

APPENDIX I (continued)

2. For each of the following statements, how often does it happen in your relationship with your parents?

	<u>Never</u>	<u>Rarely</u>	<u>Sometimes</u>	<u>Often</u>	<u>Almost Always</u>
a. I can count on my parents to help me out if I have some kind of problem.....	1	2	3	4	5
b. My parents push me to do the best that I can do.....	1	2	3	4	5
c. My parents push me to think independently.....	1	2	3	4	5
d. My parents help me with my schoolwork if there is something I do not understand.....	1	2	3	4	5
e. When my parents want me to do something, they explain why.....	1	2	3	4	5
f. When I get a poor grade in school, my parents push me to try harder.....	1	2	3	4	5
g. When I get a good grade in school, my parents express their approval of me.....	1	2	3	4	5

3. Which of the following statements best describes how many of your friends do your parents know?

My parents don't know any of my friends	1
My parents know a few of my friends	2
My parents know some of my friends	3
My parents know a lot of my friends	4
My parents know all of my friends	5

4. For each of the following statements, how often do these activities happen in your family?

	<u>Never</u>	<u>Rarely</u>	<u>Sometimes</u>	<u>Often</u>	<u>Almost Always</u>
a. My parents spend time just talking to me.....	1	2	3	4	5
b. My family does something fun together.	1	2	3	4	5

APPENDIX I (continued)

5. In a typical week, what is the latest your parents usually allow you to stay out on **SCHOOL NIGHTS (Monday-Thursday)**?

Not allowed out 1
 Earlier than 9 PM..... 2
 9:00 to 10:59 PM..... 3
 11:00 PM or later..... 4
 As late as I want..... 5

6. In a typical week, what is the latest your parents usually allow you to stay out on **FRIDAY or SATURDAY NIGHT**?

Not allowed out 1
 Earlier than 9 PM..... 2
 9:00 to 10:59 PM..... 3
 11:00 PM or later..... 4
 As late as I want..... 5

7. For each of the following statements, how much do your parents know...

	<u>Never</u>	<u>Rarely</u>	<u>Sometimes</u>	<u>Often</u>	<u>Almost Always</u>
a. Where you go at night?	1	2	3	4	5
b. What you do with your free time?	1	2	3	4	5
c. Where you are most afternoons after school?	1	2	3	4	5

8. For each of the following statements about your parents, how often do your parents...?

	<u>Never</u>	<u>Rarely</u>	<u>Sometimes</u>	<u>Often</u>	<u>Almost Always</u>
a. Have to know who your friends are before you can do things with them.....	1	2	3	4	5
b. Explain to you what they expect from you	1	2	3	4	5
c. Tell you that you must follow their expectations	1	2	3	4	5
d. Continually warn you about using drugs	1	2	3	4	5
e. Continually warn you about having sex	1	2	3	4	5

APPENDIX I (continued)

	<u>Never</u>	<u>Rarely</u>	<u>Sometimes</u>	<u>Often</u>	<u>Almost Always</u>
f. Let you spend time with friends they think are a good influence.....1	1	2	3	4	5
g. Watch your behaviors before they give you more freedom1	1	2	3	4	5
h. Pay attention to whether or not you listen to them before they give you more freedom1	1	2	3	4	5
i. Tell you what they think is best for you.....1	1	2	3	4	5

Bonding

9. For each of the following statements about your relationship with your father (or a male guardian), how often do you...

	<u>Never</u>	<u>Rarely</u>	<u>Sometimes</u>	<u>Often</u>	<u>Almost Always</u>
a. Feel close to your father?.....1	1	2	3	4	5
b. Share your thoughts and feelings with your father?.....1	1	2	3	4	5
c. Tell your father your problems and troubles?.....1	1	2	3	4	5
d. Want to be like your father?.....1	1	2	3	4	5
e. Get along with your father?.....1	1	2	3	4	5

10. For each of the following statements about your relationship with your mother (or a female guardian), how often do you...

	<u>Never</u>	<u>Rarely</u>	<u>Sometimes</u>	<u>Often</u>	<u>Almost Always</u>
a. Feel close to your mother?.....1	1	2	3	4	5
b. Share your thoughts and feelings with your mother?.....1	1	2	3	4	5
c. Tell your mother your problems and troubles?.....1	1	2	3	4	5
d. Want to be like your mother?.....1	1	2	3	4	5
e. Get along with your mother?.....1	1	2	3	4	5

APPENDIX I (continued)

11. For each of the following statements about your relationship with your father (or a male guardian), how strongly do you agree or disagree?

	<u>Strongly Disagree</u>	<u>Disagree</u>	<u>Agree</u>	<u>Strongly Agree</u>	<u>Don't Know</u>
a. My father and I agree on the aims or goals in life.....	1	2	3	4	12
b. My father and I agree on what things are important in life	1	2	3	4	12
c. My father and I agree on the friends that I make	1	2	3	4	12
d. My father and I agree on the amount of time we spend together.	1	2	3	4	12
e. My father and I agree on how we show our affection for each other.	1	2	3	4	12
f. My father and I generally talk things over together	1	2	3	4	12
g. My father and I agree on how I should behave	1	2	3	4	12
h. I am satisfied with my relationship with my father	1	2	3	4	12

12. For each of the following statements about your relationship with your mother (or a female guardian), how strongly do you agree or disagree?

	<u>Strongly Disagree</u>	<u>Disagree</u>	<u>Agree</u>	<u>Strongly Agree</u>	<u>Don't Know</u>
a. My mother and I agree on the aims or goals in life.....	1	2	3	4	12
b. My mother and I agree on what things are important in life	1	2	3	4	12
c. My mother and I agree on the friends that I make.	1	2	3	4	12
d. My mother and I agree on the amount of time we spend together	1	2	3	4	12
e. My mother and I agree on how we show our affection for each other.	1	2	3	4	12
f. My mother and I generally talk things over together	1	2	3	4	12

APPENDIX I (continued)

	<u>Strongly Disagree</u>	<u>Disagree</u>	<u>Agree</u>	<u>Strongly Agree</u>	<u>Don't Know</u>
g. My mother and I agree on how I should behave	1	2	3	4	12
h. I am satisfied with my relationship with my mother	1	2	3	4	12

Culture

13. For each of the following statements about values, how strongly do you agree or disagree with it?

	<u>Strongly Disagree</u>	<u>Disagree</u>	<u>Neither Agree/ Disagree</u>	<u>Agree</u>	<u>Strongly Agree</u>
a. Failure in your future job or career will not bring shame to the family	1	2	3	4	5
b. Educational and career achievements are not the most important to achieve in life	1	2	3	4	5
c. People should avoid making their ancestors unhappy	1	2	3	4	5
d. People should not cause trouble	1	2	3	4	5
e. Family is not the main source of trust and dependence.....	1	2	3	4	5
f. People should not control the expressions of their emotions	1	2	3	4	5
g. Modesty is an important quality to have	1	2	3	4	5
h. People should be humble and modest.....	1	2	3	4	5
i. Young people should be able to confront their elders	1	2	3	4	5
j. Elders may not have more wisdom than younger people.....	1	2	3	4	5

14. For each of the following statements about values, how strongly do you agree or disagree with it?

	<u>Strongly Disagree</u>	<u>Disagree</u>	<u>Neither Agree/ Disagree</u>	<u>Agree</u>	<u>Strongly Agree</u>
a. Without competition, it is not possible to have a good society.....	1	2	3	4	5
b. Winning is everything	1	2	3	4	5

APPENDIX I (continued)

	<u>Strongly Disagree</u>	<u>Disagree</u>	<u>Neither Agree/ Disagree</u>	<u>Agree</u>	<u>Strongly Agree</u>
c. I enjoy competing with others	1	2	3	4	5
d. Being a unique individual is important to me	1	2	3	4	5
e. I am a unique person, separate from others	1	2	3	4	5
f. I enjoy being unique and different from others	1	2	3	4	5
g. I would do what would please my family, even if I hated that activity	1	2	3	4	5
h. Aging parents should live with their children in their home	1	2	3	4	5
i. I would sacrifice an activity that I enjoy very much if my family did not approve of it	1	2	3	4	5
j. The happiness of my peers is important to me ...	1	2	3	4	5
k. It is important to me to keep the peace within my group	1	2	3	4	5
l. It is important to discuss with close friends and get their ideas before making a decision ...	1	2	3	4	5

15. For each of the following statements, how often does it apply to you in terms of the culture of **your ethnic/racial group (e.g. Chinese)?**

	<u>Never</u>	<u>Rarely</u>	<u>Sometimes</u>	<u>Often</u>	<u>Almost Always</u>
a. I like to listen to music of my ethnic/racial group	1	2	3	4	5
b. I attend parties with people from my ethnic/racial group	1	2	3	4	5
c. I eat traditional foods from my ethnic/racial group	1	2	3	4	5
d. I read magazines or newspapers of my ethnic/racial group	1	2	3	4	5
e. I speak the native language of my ethnic/racial group with members of my family	1	2	3	4	5

APPENDIX I (continued)

	<u>Never</u>	<u>Rarely</u>	<u>Sometimes</u>	<u>Often</u>	<u>Almost Always</u>
f. I speak the native language of my ethnic/racial group with my friends.....	1	2	3	4	5
g. I have friends who are in my ethnic/racial group.....	1	2	3	4	5
h. I feel accepted by people who are in my ethnic/racial group.....	1	2	3	4	5
i. I am totally comfortable with people who are in my ethnic/racial group.....	1	2	3	4	5

16. For each of the following statements, how often does it apply to you in terms of **American culture**?

	<u>Never</u>	<u>Rarely</u>	<u>Sometimes</u>	<u>Often</u>	<u>Almost Always</u>
a. I like to listen to American music.....	1	2	3	4	5
b. I attend parties with American people.....	1	2	3	4	5
c. I eat American foods.....	1	2	3	4	5
d. I read American magazines or newspapers.....	1	2	3	4	5
e. I speak English with members of my family.....	1	2	3	4	5
f. I speak English with my friends.....	1	2	3	4	5
g. I have friends who are American.....	1	2	3	4	5
h. I feel accepted by people who are American.....	1	2	3	4	5
i. I am totally comfortable with people who are American.....	1	2	3	4	5

Substance Use

17. In general, do you think it is OK for someone your age to...

	<u>Yes</u>	<u>No</u>
a. Smoke cigarettes?.....	1	2
b. Drink alcohol?.....	1	2

APPENDIX I (continued)

18. In general, do your parents or guardians think it is OK for someone your age to...
- | | Yes | No |
|----------------------------|-----|----|
| a. Smoke cigarettes? | 1 | 2 |
| b. Drink alcohol? | 1 | 2 |

THE NEXT SET OF QUESTIONS ASKS ABOUT DRINKING ALCOHOL. THIS INCLUDES DRINKING BEER, WINE, WINE COOLERS, AND LIQUOR SUCH AS RUM, GIN, VODKA, AND WHISKEY.

19. Have you ever had a drink of alcohol, more than a few sips, without your parents' permission?
- | | |
|-----------|---|
| Yes | 1 |
| No | 2 |
20. How old were you when you first tried more than a few sips of an alcoholic beverage without your parents' permission?
- | | |
|---------------------------------------------------------------------------------|---|
| 8 years old or younger | 1 |
| 9 - 11 years old | 2 |
| 12 - 14 years old | 3 |
| 14 years old or older | 4 |
| <i>I have never had a drink of alcohol without my parent's permission</i> | 5 |
21. In the past 30 days, on how many days did you have at least one drink of alcohol without your parents' permission?
- | | |
|------------------------|---|
| None | 1 |
| 1 or 2 days | 2 |
| 3 to 5 days | 3 |
| More than 5 days | 4 |
22. Have you ever been drunk from drinking alcohol?
- | | |
|-----------|---|
| Yes | 1 |
| No | 2 |

APPENDIX I (continued)

23. In the past 30 days, on how many days have you been drunk on alcohol?

- None1
 1 or 2 days.....2
 3 to 5 days.....3
 More than 5 days.....4

24. Do your parents or guardians drink alcohol?

- Yes1
 No2

25. When your parents or guardians drink alcohol, how much do they drink? Would you say they drink...

- A lot,1
 Some, or2
 A little?3
 My parents do not drink alcohol.....4

26. In the next 12 months, how likely will you drink beer, wine, wine coolers, or other liquor?

- Very likely1
 Somewhat likely.....2
 Likely3
 Somewhat unlikely.....4
 Not at all likely5

THE NEXT SET OF QUESTIONS ASKS ABOUT CIGARETTE SMOKING.

27. Have you ever tried cigarette smoking, even one or two puffs?

- Yes1
 No2

APPENDIX I (continued)

28. How old were you when you first smoked a cigarette, even one or two puffs, for the first time?
- | | |
|----------------------------------------------------|---|
| 8 years old or younger..... | 1 |
| 9 -11 years old..... | 2 |
| 12 - 14 years old..... | 3 |
| 14 years old or older..... | 4 |
| <i>I have never tried smoking cigarettes</i> | 5 |
29. In the past 30 days, have you smoked cigarettes?
- | | |
|----------|---|
| Yes..... | 1 |
| No..... | 2 |
30. In the past 30 days, on how many days did you smoke cigarettes?
- | | |
|-----------------------|---|
| None..... | 1 |
| 1 to 2 days..... | 2 |
| 3 to 5 days..... | 3 |
| 6 to 9 days..... | 4 |
| More than 9 days..... | 5 |
31. On the days that you smoked, how many cigarettes did you smoke on average?
- | | |
|------------------------------------|---|
| None..... | 1 |
| Less than 1 cigarette per day..... | 2 |
| 1 cigarette..... | 3 |
| 2 to 4 cigarettes..... | 4 |
| 5 or more cigarettes..... | 5 |
32. Have you ever smoked cigarettes **daily**, at least one cigarette every day for 30 days?
- | | |
|----------|---|
| Yes..... | 1 |
| No..... | 2 |
33. Do any of your parents or guardians smoke cigarettes?
- | | |
|----------|---|
| Yes..... | 1 |
| No..... | 2 |

APPENDIX I (continued)

34. In the next 12 months, how likely will you smoke a cigarette or use tobacco?

- Very likely1
 Somewhat likely.....2
 Likely3
 Somewhat unlikely.....4
 Not at all likely5

Feeling About Life

35. Below is a list of the ways you might have felt or acted recently. During the past 7 days, how often have you felt or acted this way?

	<u>None</u>	<u>1-2 days</u>	<u>3-4 days</u>	<u>5-7 days</u>
a. I did not feel like eating. My appetite was poor.....	1	2	3	4
b. I wasn't able to feel happy even with help from my family or friends	1	2	3	4
c. I felt hopeful about my future	1	2	3	4
d. I had trouble keeping my mind on what I was doing	1	2	3	4
e. I felt depressed	1	2	3	4
f. I felt like I was too tired to do things.....	1	2	3	4
g. I cried a lot.....	1	2	3	4
h. I had trouble sleeping	1	2	3	4
i. I felt that people disliked me	1	2	3	4
j. I was happy	1	2	3	4
k. I enjoyed life	1	2	3	4
l. I felt lonely.....	1	2	3	4

APPENDIX I (continued)

Academic Performance

36. During the past 12 months, how would you describe your grades in school?

Mostly A's.....	1
Mostly B's.....	2
Mostly C's.....	3
Mostly D's.....	4
Mostly F's.....	5
None of these grades.....	6
Not sure.....	7

37. During the past 12 months, how many days of school did you miss?

0 days.....	1
1-5 days	2
6-10 days	3
11-15 days	4
16-20 days	5
21 days or more	6

38. During the past 12 months, on how many days were you tardy to school?

0 days.....	1
1-5 days	2
6-10 days	3
11-15 days	4
16-20 days	5
21 days or more	6

Background

39. What is your age? _____ years old

40. Are you...

Female	1
Male.....	2

APPENDIX I (continued)

41. What grade are you in?

6th grade1
 7th grade2
 8th grade3

42. Were you born in the United States?

Yes1
 No2

43. If you were **NOT** born in the US, in which country were you born? _____

a. How old were you when you came to the U.S.? _____

44. Was your mother born in the United States?

Yes1
 No2
 Don't Know3

45. Was your father born in the United States?

Yes1
 No2
 Don't Know3

APPENDIX I (continued)

46. Which of the following choices best represents your race/ethnicity? **Circle all that apply.**

American Indian or Alaska Native.....	1
Asian/Asian American	2
Chinese/Chinese American	3
Korean/Korean American	4
Pilipino/Pilipino American	5
Vietnamese/Vietnamese American.....	6
White	7
Black or African American	8
Hispanic or Latino.....	9
Native Hawaiian or Pacific Islander	10
Other (please specify)	11

47. Do you live with your...

Mother and father?	1
Mother only?.....	2
Father only?	3
Mother and a step parent?	4
Father and a step parent?	5
Other (please specify)	6

Thank you for your time!

APPENDIX J: Student Questionnaire—Simplified Chinese

ST. THERESE

SPN:

学生问卷调查-华人

请用15至20分钟的时间完成这份问卷调查,帮助我们了解你和你父母的关系。

除特别说明, 每个问题请只画圈选一个选项。与父母关系

1. 下面每个描述的情景, 发生的概率是?

	<u>从来没有</u>	<u>很少</u>	<u>有时</u>	<u>经常</u>	<u>几乎总是</u>
a. 在家里我父母让我参与决定做什么有趣活动.....1	2	3	4	5	
b. 在家里我父母让我参与决定我做什么家务活.....1	2	3	4	5	
c. 我父母让我参与家庭的活动.....1	2	3	4	5	
d. 我父母和我一起玩游戏、进行体育活动等.....1	2	3	4	5	
e. 我父母晚间和孩子待在一起.....1	2	3	4	5	
f. 我父母和我一起去图书馆.....1	2	3	4	5	
g. 我帮助做家务时, 我父母会给予表扬....1	2	3	4	5	
h. 我帮助做家务时, 我父母会给我特别待遇和金钱等奖励.....1	2	3	4	5	
i. 我学习成绩好时, 我父母会给予表扬....1	2	3	4	5	
j. 我学习成绩好时, 我父母会给我特别待遇和金钱等奖励.....1	2	3	4	5	

APPENDIX J (continued)

2. 下面每个描述的情景，发生的概率是？

	<u>从来没有</u>	<u>很少</u>	<u>有时</u>	<u>经常</u>	<u>几乎总是</u>
a. 我遇到问题时，我能指望 我父母的帮助.....	1	2	3	4	5
b. 父母促使我尽力做最好.....	1	2	3	4	5
c. 我父母促使我独立思考.....	1	2	3	4	5
d. 如果学校作业我有问题时， 我父母会帮助我1.....	1	2	3	4	5
e. 我父母要我做什么事情时， 我父母会解释为什么.....	1	2	3	4	5
f. 我学习成绩不好时， 我父母会促使我更加努力.....	1	2	3	4	5
g. 我学习成绩好时， 我父母会给予表扬.....	1	2	3	4	5

3. 你父母对你朋友了解多少？

我父母不知道我的任何朋友.....	1
我父母知道我的几个朋友.....	2
我父母知道我的一些朋友.....	3
我父母知道我的很多朋友.....	4
我父母知道我的所有朋友.....	5

4. 下面每个描述的情景，发生的概率是？

	<u>从来没有</u>	<u>很少</u>	<u>有时</u>	<u>经常</u>	<u>几乎总是</u>
a. 我父母仅仅花时间跟我谈话.....	1	2	3	4	5
b. 我们一家人一起做些有趣的事.....	1	2	3	4	5

APPENDIX J (continued)

5. 常规情况下，第二天要上学的晚间（周一至周四晚间），你父母允许你在外面最晚待到什么时间？

不允许出去	1
晚间 9:00 点以前.....	2
晚间 9:00 至 10:59 之间	3
晚间 11:00 点或更晚.....	4
我想待多晚就多晚.....	5

6. 常规情况下，周五和周六晚间你父母允许你在外面最晚待到什么时间？

不允许出去	1
晚间 9:00 点以前.....	2
晚间 9:00 至 10:59 之间	3
晚间 11:00 点或更晚.....	4
我想待多晚就多晚.....	5

7. 下面每个情景，你父母多大程度上想知道？

	<u>不想</u>	<u>有点</u>	<u>有时</u>	<u>经常</u>	<u>很想</u>
a. 你在哪过夜?.....	1	2	3	4	5
b. 您空闲时间干什么?.....	1	2	3	4	5
c. 你下午放学后大部份时间在哪?.....	1	2	3	4	5

8. 下面是关于父母教育，发生的概率是？

	<u>从来没有</u>	<u>很少</u>	<u>有时</u>	<u>经常</u>	<u>几乎总是</u>
a. 在我和朋友做什么事情前， 我父母必须知道我的朋友是谁.....	1	2	3	4	5
b. 我父母向我解释清楚他们对 我的期望是什么	1	2	3	4	5
c. 我父母告诉我必须遵从他们的期望	1	2	3	4	5
d. 我父母一直不断地告诫我毒品危害	1	2	3	4	5
e. 我父母一直不断地告诫我性行为危害	1	2	3	4	5

APPENDIX J (continued)

	<u>从来没有</u>	<u>很少</u>	<u>有时</u>	<u>经常</u>	<u>几乎总是</u>
f. 我父母会同意我跟他们认为对我会有好影响的朋友们在一起.....1	2	3	4	5	
g. 在给予我更多自由前, 我父母会观察我举止行为.....1	2	3	4	5	
H. 在给予我更多自由前, 我父母会观察我是否听他们的话.....1	2	3	4	5	
i. 我父母告诉我什么对我最好.....1	2	3	4	5	

亲情

9. 下面问题是关于你和父亲（或男性监护人）的关系，发生的概率是？

	<u>从来没有</u>	<u>很少</u>	<u>有时</u>	<u>经常</u>	<u>几乎总是</u>
a. 感觉与你父亲很近?.....1	2	3	4	5	
b. 和你父亲分享你的想法和感觉?.....1	2	3	4	5	
c. 告诉你父亲你的问题和麻烦?.....1	2	3	4	5	
d. 想和你父亲一样?.....1	2	3	4	5	
e. 和你父亲相处融洽?.....1	2	3	4	5	

10. 下面问题是关于你和母亲（或女性监护人）的关系，发生的概率是？

	<u>从来没有</u>	<u>很少</u>	<u>有时</u>	<u>经常</u>	<u>几乎总是</u>
a. 感觉与你母亲很近?.....1	2	3	4	5	
b. 和你母亲分享你的想法和感觉?.....1	2	3	4	5	
c. 告诉你母亲你的问题和麻烦?.....1	2	3	4	5	
d. 想和你母亲一样?.....1	2	3	4	5	
e. 和你母亲相处融洽?.....1	2	3	4	5	

APPENDIX J (continued)

11. 下面问题是关于你同父亲（或男性监护人）的关系，你在多大程度同意或者不同意？

	<u>强烈</u> <u>不同意</u>	<u>不同意</u>	<u>同意</u>	<u>强烈</u> <u>同意</u>	<u>不知道</u>
a. 我父亲和我的生活的目标、 目的意见一致.....1	1	2	3	4	12
b. 我父亲和我对生活 重要问题的看法一致.....1	1	2	3	4	12
c. 我父亲和我对交什么朋友的看法一致.....1	1	2	3	4	12
d. 我父亲和我对我们相处的时间意见一致.....1	1	2	3	4	12
e. 我父亲和我在如何表达我们 彼此间的情感上意见一致.....1	1	2	3	4	12
f. 我父亲和我通常情况下， 互相商量事情.....1	1	2	3	4	12
g. 我父亲和我对行为处事意见一致.....1	1	2	3	4	12
h. 我满意我和父亲的关系.....1	1	2	3	4	12

12. 下面问题是关于你同母亲（或女性监护人）的关系，你在多大程度同意或者不同意？

	<u>强烈</u> <u>不同意</u>	<u>不同意</u>	<u>同意</u>	<u>强烈</u> <u>同意</u>	<u>不知道</u>
a. 我母亲和我的生活的目标 目的意见一致.....1	1	2	3	4	12
b. 我母亲和我对生活重 要问题的看法一致.....1	1	2	3	4	12
c. 我母亲和我对交什么朋友的看法一致.....1	1	2	3	4	12
d. 我母亲和我对我们相处 的时间意见一致.....1	1	2	3	4	12
e. 我母亲和我在如何表达我们 彼此间的情感上意见一致.....1	1	2	3	4	12

APPENDIX J (continued)

	<u>强烈 不同意</u>	<u>不同意</u>	<u>同意</u>	<u>强烈 同意</u>	<u>不知道</u>
f. 我母亲和我通常情况下, 互相商量事情	1	2	3	4	12
g. 我母亲和我对行为处事意见一致	1	2	3	4	12
h. 我满意我和母亲的关系	1	2	3	4	12

文化

13. 下面的问题是关于文化的, 你在多大程度同意或者不同意?

	<u>强烈 不同意</u>	<u>不同意</u>	<u>不同意也 不反对</u>	<u>强烈 同意</u>	<u>不知道</u>
a. 事业的失败并不会给家庭蒙羞	1	2	3	4	5
b. 比起生活而言, 人生中学业和事业成功不是最重要	1	2	3	4	5
c. 人不能让前辈不满	1	2	3	4	5
d. 人不应该引起麻烦	1	2	3	4	5
e. 家庭不是信任和依靠的主要来源	1	2	3	4	5
f. 人们不应该控制自己情绪	1	2	3	4	5
g. 谦虚是一种十分重要的美德	1	2	3	4	5
h. 人应该谦虚谨慎	1	2	3	4	5
i. 年青人应该可以同长辈对抗	1	2	3	4	5
j. 年长者没有年青者聪明	1	2	3	4	5

14. 下面的问题是关于价值的, 你在多大程度同意或者不同意?

	<u>强烈 不同意</u>	<u>不同意</u>	<u>不同意也 不反对</u>	<u>强烈 同意</u>	<u>不知道</u>
a. 没有竞争, 不可能有一个好的社会	1	2	3	4	5

APPENDIX J (continued)

	<u>强烈 不同意</u>	<u>不同意</u>	<u>不同意也 不反对</u>	<u>强烈 同意</u>	<u>不知道</u>
b. 赢者为王.....1	2	3	4	5	
c. 我喜欢与人竞争.....1	2	3	4	5	
d. 作为独特的个人是重要的.....1	2	3	4	5	
e. 与其他人比, 我是独特的.....1	2	3	4	5	
f. 我喜欢与众不同.....1	2	3	4	5	
g. 为了我的家庭我愿意做我不喜欢的事.....1	2	3	4	5	
h. 老年人应该与他们的子女同住.....1	2	3	4	5	
i. 可为我的家庭放弃我喜欢的事.....1	2	3	4	5	
j. 同伴的快乐对我是重要的e.....1	2	3	4	5	
k. 与同伴和平相处对我来说是重要的.....1	2	3	4	5	
l. 做决定前与好朋友讨论并 获得建议是重要的.....1	2	3	4	5	

15. 下面这些关于中国文化的描述, 在多大程度上适用于你?

	<u>从来没有</u>	<u>很少</u>	<u>有时</u>	<u>经常</u>	<u>几乎总是</u>
a. 我喜欢听中国音乐.....1	2	3	4	5	
b. 我参加华人的社交活动.....1	2	3	4	5	
c. 我吃传统中式食物.....1	2	3	4	5	
d. 我阅读中文杂志、报纸、书籍.....1	2	3	4	5	
e. 我跟家人讲中文.....1	2	3	4	5	
f. 我跟朋友讲中文.....1	2	3	4	5	
g. 我有华人朋友.....1	2	3	4	5	
h. 我感觉自己被华人所接受.....1	2	3	4	5	

APPENDIX J (continued)

	<u>从来没有</u>	<u>很少</u>	<u>有时</u>	<u>经常</u>	<u>几乎总是</u>
i. 我与华人相处十分舒服	1	2	3	4	5

16. 下面这些关于美国文化的描述，在多大程度上适用于你？

	<u>从来没有</u>	<u>很少</u>	<u>有时</u>	<u>经常</u>	<u>几乎总是</u>
a. 我喜欢听美国音乐	1	2	3	4	5
b. 我参加美国人的社交活动	1	2	3	4	5
c. 我吃美国食物	1	2	3	4	5
d. 我阅读美国杂志、报纸、书籍	1	2	3	4	5
e. 我跟家人讲英文	1	2	3	4	5
f. 我跟朋友讲英文	1	2	3	4	5
g. 我有美国人朋友	1	2	3	4	5
h. 我感觉自己被美国人所接受	1	2	3	4	5
i. 我与美国人相处十分舒服	1	2	3	4	5

物质滥用

17. 常规情况下，对于 你的年龄，你认为是可以的吗？

	<u>可以</u>	<u>不可以</u>
a. 抽烟	1	2
b. 喝酒	1	2

18. 常规情况下，你的父母或监护人，对你的年龄他们认为是可以的吗？

	<u>可以</u>	<u>不可以</u>
a. 抽烟	1	2
b. 喝酒	1	2

APPENDIX J (continued)

下面的问题是关于喝酒，喝酒包括啤酒、葡萄酒、冰葡萄酒、以及各类白酒（如罗姆酒、杜松子酒、伏特加、和威士忌）。

19. 你曾经在没有父母的同意下喝酒吗？不仅是抿了几口？

是.....1

没有.....2

20. 当你在没有父母的同意下第一次喝酒时，你多大？

8岁或更小.....1

9岁或更大.....2

12岁或更大.....3

14岁或更大.....4

没有父母的同意我从未喝酒.....5

21. 在过去的 **30** 天内，在 没有你父母的同意下多少天你至少喝酒一次？

没有.....1

1 或 2 天.....2

3 至 5 天.....3

5天以上.....4

22. 你曾经因喝啤酒、葡萄酒、冰葡萄酒、以及各类白酒而醉酒吗？

是.....1

没有.....2

23. 过去的**30**天，你喝醉酒多少天？

没有.....1

1 或 2 天.....2

3 至 5 天.....3

5天以上.....4

APPENDIX J (continued)

24. 你的父母或监护人喝酒吗?

- 是.....1
- 没有.....2

25. 你父母喝多少酒...

- 很多.....1
- 一些.....2
- 一点.....3
- 不喝.....4

26. 在接着的12个月内, 你有多大可能会喝啤酒、葡萄酒、冰葡萄酒、以及各类白酒?

- 很大可能.....1
- 颇可能.....2
- 可能.....3
- 颇不可能.....4
- 一点不可能.....5

下面是关于你抽烟问题

27. 你曾经抽烟吗? 即便一次或两次?

- 是.....1
- 没有.....2

28. 当你第一次抽烟时, 你多大? 即便一次或两次?

- 8岁或更小.....1
- 9-11岁或更大.....2
- 12-14岁或更大.....3
- 14岁或更大.....4
- 未抽过.....5

APPENDIX J (continued)

29. 在过去的30天, 你抽过烟吗?

是.....1
 没有.....2

30. 在过去的30天, 你抽过烟多少天?

没有.....1
 1至2天.....2
 3至5天.....3
 6至9天.....4
 9天以上.....5

31. 你平均抽多少?

不抽.....1
 每天少于1支.....2
 每天1支.....3
 每天2至4支.....4
 每天5支或以上.....5

32. 你会天天抽烟吗?, 30天中每天至少抽1支吗?

是.....1
 没有.....2

33. 你父母或监护人抽烟吗?

是.....1
 没有.....2

APPENDIX J (continued)

34. 在接着的12月内, 你可能会抽烟吗

很大可能.....	1
颇可能.....	2
可能.....	3
颇不可能.....	4
一点不可能.....	5

生活感受

35. 下面列出的可能是你最近的感受 and 生活方式, 在过去的7天, 你的感受和生活方式是?

	<u>没有</u>	<u>1-2天</u>	<u>3-4天</u>	<u>5-7天</u>
a. 我不想吃, 胃口差.....	1	2	3	4
b. 即便有家庭和朋友的帮助, 我也不感到高兴.....	1	2	3	4
c. 我感到我的未来充满希望.....	1	2	3	4
d. 我做事情不能集中注意力.....	1	2	3	4
e. 我感到抑郁.....	1	2	3	4
f. 我感到很累, 什么都做不了.....	1	2	3	4
g. 我常哭.....	1	2	3	4
h. 我有睡眠问题.....	1	2	3	4
i. 我觉得人们不喜欢我.....	1	2	3	4
j. 我是幸福的.....	1	2	3	4
k. 我享受生活.....	1	2	3	4
l. 我感到孤独.....	1	2	3	4

APPENDIX J (continued)

学术表现

36. 在过去的12月内, 你如何描述你的成绩?

很多A.....	1
很多B.....	2
很多C.....	3
很多D.....	4
很多F.....	5
都不是.....	6
不肯定.....	7

37. 在过去的12月内, 你缺课多少天?

0天.....	1
1-5天.....	2
6-10天.....	3
11-15天.....	4
16-20天.....	5
21天或更多.....	6

38. 在过去的12月内, 你迟到多少天?

0天.....	1
1-5天.....	2
6-10天.....	3
11-15天.....	4
16-20天.....	5
21天或更多.....	6

背景资料

39. 你有多大? _____ 岁

APPENDIX J (continued)

40. 你是？

女性.....1
 男性.....2

41. 你的年级？

6 年级.....1
 7 年级.....2
 8 年级.....3

42. 你出生在美国吗？

是.....1
 不是.....2

43. 假若你不是出生在美国，你出生在哪个国家？_____

a. 当你到美国时，你多大？_____

44. 你的母亲出生在美国吗？

是.....1
 不是.....2
 不知道.....12

45. 你的父亲出生在美国吗？

是.....1
 不是.....2
 不知道.....12

APPENDIX J (continued)

46. 下面哪个选项能最好的代表你的种族？请在合适处画圈。

美洲印第安人或者阿拉斯加土著	1
亚裔	2
华裔	3
韩裔	4
菲律宾裔	5
越裔	6
白人, 非拉丁裔	7
黑人或者非洲裔美国人	8
墨西哥或者拉丁裔	9
夏威夷土著或者太平洋岛民	10
其它 (详细说明)	11

47. 你和谁生活...

父母双亲	1
母亲	2
父亲	3
母亲和继父	4
父亲和继母	5
其它 (请详细说明)	6

谢谢你宝贵的时间！

VITA

NAME: Meme Li-Hua Wang

EDUCATION

PhD Candidate in Community Health Sciences, September 2005–Present

University of Illinois at Chicago (UIC), School of Public Health, Chicago, Illinois

Anticipated Date of Dissertation Defense: May 2, 2012

Dissertation Title: Macro-theoretical conceptual framework to understand cultural influences on parent-child bonding to prevent substance abuse among Asian American adolescents

Dissertation Committee: Frederick J. Kviz, Arlene M. Miller, Susan Altfeld, Michael Fagen, Sally Freels, Young Ik Cho

Master of Public Health in Health Administration, MPH

Benedictine University, Illinois, 2003

Bachelor of Science in Health Science, BS

Benedictine University, Illinois, 2001

AREAS OF RESEARCH INTEREST

Etiology and prevention of adolescent alcohol and tobacco use, and mental health problems

Social-psychological, cultural and environmental-level influences on problem behaviors among adolescents

Family-based risk and protective factors on problem behaviors among racial/ethnic minority adolescents

Design, implementation, and evaluation of family-based, community, and environmental-level prevention strategies

Health promotion and education theories

Cross-cultural research methods

Survey research methods and quantitative data analyses

ACADEMIC HONORS & AWARDS

Chancellor's Graduate Research Award, University of Illinois at Chicago (UIC),

Date of tenure: January 2012–May 2012. Total award amount: \$4,000.

Chancellor's Student Service and Leadership Award, University of Illinois at Chicago (UIC), Spring 2011.

Diversifying Higher Education Faculty in Illinois (DFI) Fellowship, Illinois Board of Education,

Date of tenure: September 2010–May 2012. Total stipend amount: \$24,000 and full tuition waiver.

Chinese Language Scholarship. Cultural Division of the Taipei Economic and Cultural Representative Office in the United States, Date of tenure: May 2006–August 2006.

United States Public Health Traineeship, Community Health Sciences, University of Illinois at Chicago (UIC),

Date of tenure: September 2005–May 2006. Total stipend amount: \$1,000.

RESEARCH EXPERIENCE

Doctoral Research Study • UIC School of Public Health • Chicago, Illinois, January 2011–Present
(Research Advisor: Dr. Frederick J. Kviz)

- Developed a macro-theoretical conceptual framework to understand cultural influences on intergenerational cultural dissonance and its relationship to adolescent substance use among Asian American families
- Developed parent and student questionnaires to collect data from parent-child dyads
- Conducted a pretest of the questionnaires
- Conducted parallel translations with committee reviews of parent questionnaire to translate it into Chinese (Mandarin) and Spanish
- Collected survey data from nearly 250 parent-child dyads from three elementary Chicago Public Schools (with a total student population of nearly 750) in Chicago's Chinatown
- Administered student questionnaires, and adapted the *Tailored Design Method* (Dillman, 2007) for mail surveys to administer parent questionnaires
- Performed data entry, cleaning, and management
- Perform multi-level modeling analyses, multiple and logistic regression

Research Assistant • UIC Community Schools Evaluation Project • Chicago, Illinois,
September 2005–December 2007

- Collected qualitative data through program observations, focus groups, and individual interviews for evaluation of community Chicago Public Schools
- Assisted with developing coding schemes for qualitative data collected
- Coded, analyzed, and synthesized qualitative data with ATLAS.ti 5.0
- Provided support with survey questionnaire design and administered surveys to schools
- Analyzed survey data to examine community schools' health programming through the *Centers for Disease Control and Prevention (CDC) Coordinated School Health Program* framework
- Developed report on current status of health programming in Chicago community schools

Research Assistant • American Medical Association • Chicago, Illinois, September 2003–August 2005

- Coordinated the *Strategies for Teaching and Evaluating Professionalism (STEP)* program including site visits to *STEP* medical school partners, meetings, and conference calls
- Provided staff support at professional conferences, task force meetings, and other meetings
- Coded, analyzed, and synthesized medical student and resident focus group data on ethics and professionalism curriculum
- Synthesized recommendations from blue panel reports, panel reports, and other professional literature on medical education

PROFESSIONAL EXPERIENCE

Program Manager, Substance Abuse Prevention Program (SAPP) • Asian Health Coalition, Chicago, Illinois, July 2008–Present

- Lead coalition building and sustaining efforts of the *Coalition for Asian Substance Abuse Prevention (CASAP)* of Armour Square and Bridgeport (Chicago's Chinatown), and the *Uptown Coalition for a Healthier Community (UCHC)* of Uptown
- Manage and mentor two full-time program coordinators, program assistant, and interns
- Collaborate with community-based organizations, youth-serving organizations, schools, law enforcement, governmental agencies, and other members from different community sectors on CASAP to implement prevention programs, media campaign, media advocacy, and environmental-level strategies
- Partner with community-based organizations and schools to deliver individual-level programming for adolescent substance use prevention and smoking cessation programs within Chinatown
- Ensure the cultural competency and sensitivity of CASAP's efforts
- Develop and implement surveys and other assessment tools to conduct process and outcome evaluations of substance abuse prevention strategies using both qualitative and quantitative data
- Conduct research, data collection, needs assessments, and analyses to support program planning and CASAP's strategies
- Communicate effectively to partners at state agencies, local health departments, funders, and key community leaders
- Initiate and lead grant writing for external funding sources to sustain CASAP's efforts
- Assist with programmatic budget development and monitoring
- Submit required reports to grant funding agencies

Program Coordinator, SAPP • Asian Health Coalition • Chicago, Illinois, October 2007–July 2008

- Built and coordinated coalition and capacity-building activities of the *Coalition for Asian Substance Abuse Prevention (CASAP)*
- Conducted activities for a needs assessment and environmental scan in the target community areas of Armour Square and Bridgeport (Chinatown)
- Developed a strategic plan based on data collected
- Initiated and lead the grant writing for external funding sources
- Submitted required reports to grant funding agency

TEACHING EXPERIENCE

Teaching Assistant • UIC, School of Public Health • Chicago, Illinois, June 2007–May 2010

- MPH Courses: *Behavioral Sciences in Public Health*, *Health Education & Health Promotion*
- Assisted with designing course content and activities, lecturing, and grading assignments
- Assisted with and leading class discussions online

Teaching Assistant • UIC, School of Public Health • Chicago, Illinois, January 2007–May 2007

- MPH Course: *Health Education and Health Promotion*
- Assisted with designing course content and activities, lecturing, and grading assignments

FUNDED GRANTS

Principal Investigator. Reality Illinois Program. Illinois Department of Public Health. Period of performance: January 2011–December 2012. Total amount: \$20,000.

Principal Investigator. Drug Free Communities Program. Office of National Drug Control Policy (ONDCP) and Substance Abuse and Mental Health Services Administration (SAMHSA). Period of performance: September 2010–June 2015. Total amount: \$625,000.

Principal Investigator. Chicago Tobacco Prevention Project. Respiratory Health Association, Chicago, Illinois. Period of performance: September 2010–February 2012. Total amount: \$95,000.

Lead Author. Diffusion of Effective Model Program: Hepatitis Education and Prevention Program (HEPP). Centers for Disease Control and Prevention (CDC). Period of performance: September 2008–August 2013. Total amount: \$875,000.

PUBLICATIONS

Wang, M., Kviz, F. J., Altfeld, S., and Miller, A. M. (2012). Culturally adapting prevention programs at the deep structural level using a macro-level theory. Manuscript under preparation.

Wang, M., Kviz, F. J., and Miller, A. M. (2011). The mediating role of parent-child bonding to prevent adolescent alcohol abuse among Asian American families. In press. *Journal of Immigrant & Minority Health*.

Kwon, S., Hou, N., and Wang, M. (2011). Comparison of physical activity level between cancer survivors and non-cancer participants in the 2009 BRFSS. *Journal of Cancer Survivorship*, Online First: November 9, 2011.

Wang, M. (2005). A faith-based clinic in Chicago. *Virtual Mentor*, 7(5). Available at: <http://www.ama-assn.org/ama/pub/category/14988.html>. Accessed May 1, 2005.

Wang, M. (2004). Agents of a rogue state? Physicians' participation in state-sponsored torture. *Virtual Mentor*, 6(9). Available at: <http://www.ama-assn.org/ama/pub/category/12787.html>. Accessed September 1, 2004.

Wang, M. (2004). Resurgent paternalism. *Virtual Mentor*, 6(2). Available at: <http://www.ama-assn.org/ama/pub/category/11934.html>. Accessed February 1, 2004.

ORAL PRESENTATIONS

- Wang, M., Kviz, F., and Chandrasekar, E. (2011). "Culturally relevant risk factors for substance abuse among Asian Adolescents." Oral presentation at the National Refugee and Immigrant Conference: Issues and Innovations (Chicago, IL).
- Wang, M., Kviz, F., and Chandrasekar, E. (2011). "Understanding culturally relevant risk factors for substance abuse among Asian American adolescents." Oral presentation at the American Public Health Association (APHA) 139th Annual Meeting (Washington, D.C.).
- Wang, M., Alvarez, H., Montgomery, D., and Chandrasekar, E. (2011). "Using community-based prevention marketing to reduce smoking-related health disparities in a disadvantaged ethnic enclave." Oral presentation at the Centers for Disease Control and Prevention (CDC) National Conference on Health Communication, Marketing, and Media (Atlanta, GA).

BOOK REVIEWS

- Wang, M. (2008). Review of Cultural Competence in Health Education and Health Promotion. Doody's Review Service (on-line). Available: <http://www.doody.com>. Accessed December 8, 2008.

PROFESSIONAL ORGANIZATIONS

American Public Health Association
 Illinois Public Health Association
 Society for Community Research and Action, American Psychological Association
 Society for Prevention Research