Honoring The Household: A Multi-Method Examination Of Family Structure, Harmony, And Conflict Among Asian Americans

Monica Jing Chen
mjchen95@gmail.com

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Honoring the Household: A Multi-Method Examination of Family Structure, Harmony, and Conflict Among Asian Americans

Principal Investigator: Monica Chen, BA

A Thesis Submitted to the Social and Behavioral Sciences Department Yale School of Public Health

In Partial Fulfillment of the Requirements for the Degree of Master of Public Health

May 2023

Primary Advisor: Sarah Lowe, PhD

Secondary Advisor: Eunice Yuen, MD, PhD
Abstract

Introduction. The Asian American community is the fastest-growing racial group in the U.S. (Budiman and Ruiz, 2022), however, mental health research and practice often fail to accurately capture the scope of mental wellbeing across Asian subgroups. Despite shortcomings in the literature on Asian American mental health, researchers have still found concerning mental health outcomes within the community. Key considerations in supporting and understanding Asian American mental health include family harmony and family conflict; many of these communities greatly value family harmony but also are at risk of intergenerational conflict and other stressors within the household. A primary analysis examined the relationship between family structure and family harmony and conflict among Asian American young adults. A secondary analysis investigated mental health outcomes predicted by components of family structure, harmony, and conflict. Methods. Quantitative and qualitative data were collected from 104 Asian American young adults (18-25 years old) through a survey study approved by the Yale University IRB. Methods for data analysis included multivariable linear regressions and a rapid qualitative assessment. Results. This study found that the presence of one or more grandparents during childhood was significantly associated with a higher likelihood and seriousness of family conflict. In addition, the presence of other extended family (excluding grandparents) was significantly associated with lower anxiety symptom severity. Lastly, a higher number of siblings had a significant relationship with greater difficulty with emotional clarity. Conclusion. The study’s findings underscore the importance of family context when considering the health and wellbeing of an Asian American individual. Engaging with the family environment may benefit providers and public health professionals as they work to support their patients and communities.
Acknowledgments

My deepest gratitude goes to the most outstanding support from Dr. Sarah Lowe, my primary advisor for this work. I am incredibly grateful for her patience and dedication to supporting my goals as I took on the feat of collecting original data in a short period of time. I would also like to acknowledge the amazing support I received from my secondary advisor Dr. Eunice Yuen. Her expertise and engagement have been invaluable throughout this project.

I would like to acknowledge members of the Trauma and Mental Health Lab, especially Kevin Quach for his support in distributing flyers for recruitment, MC Meadows for her support in assembling the Qualtrics survey and coding, and Audrey Huang for her support in assembling the Qualtrics survey as well.

I would like to acknowledge the following peers (and friends!) at the Yale School of Public Health for consulting me throughout this entire process, including piloting the survey and reviewing recruitment materials: Denise Chow, Winnie Ho, Alice Kwak, Helen Ngov, Alixandra Rachman, and Yazhini Ramesh. I would also like to make a special shoutout to Gaby Olea Vargas for supporting my qualitative analysis process.

I would like to acknowledge the Yale School of Public Health’s Department of Social and Behavioral Sciences for supporting compensation for this project’s study participants.

Lastly, I would like to acknowledge the beautiful support I have received from my partner Jake, my family, and my friends inside and outside of New Haven. I am so thankful for all of you sticking by me during this two-year journey!
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Introduction

Background

Mental Health Among Asian Americans

The Asian American community is the fastest-growing racial group in the U.S. From 2000 to 2019, this population grew 81% (10.5 million to 18.9 million), and they are projected to grow to 35.8 million by 2060 (Budiman and Ruiz, 2022). While this community is rapidly rising in presence, U.S. American healthcare, policy, and research are failing to provide culturally mediated strategies for addressing Asian American mental health. In cases where they are offered research and clinical attention, Asian Americans are often treated as a monolithic group despite representing dozens of languages (Maxwell and Kwon, 2018) and over 40 different ethnic groups (Asian Pacific Institute on Gender-Based Violence). Historically, American society, healthcare services, and academic literature have assumed that Asian Americans are a physiologically and culturally homogenous group (Lee, 1998); however, there is marked diversity in mental health outcomes based on different Asian ethnic groups (Maxwell and Kwon, 2018). For example, Hawaiian/Pacific Islander adults tend to have similar mental illness rates to that of non-Hispanic White individuals, but Southeast Asian refugees report higher rates of post-traumatic stress disorder due to country-specific traumatic events (Caballero et al., 2006; Tanqueco and Patel, 2020). A systematic review of studies focusing on depression among Asian Americans found prevalence estimates of depression among Korean (33.3%), Filipino (34.4%), and Chinese (15.7%) Americans (Kim et al., 2015), indicating variation in mental health outcomes among these groups. Although more disaggregated health data is being added to the literature, many researchers are still churning out papers that report their results on Asian Americans as a single group (Maxwell and Kwon, 2018).
An extension of clumping together such a large group, mental health care practices are failing to meet the specific needs of Asian American groups. For example, care services often assume that resources and treatments built on White-centric perspectives can be generalized to other racial and ethnic groups (Hall and Yee, 2012). Researchers have highlighted how, due to their collectivist values and the belief that the mind and body are one entity, many Asian Americans may suppress their emotions and consequently show somatic symptoms instead of psychological responses (Kim et al., 2020). This phenomenon does not fit the Western mold of psychiatric diagnoses, and modern screening tools, such as self-report scales, have not adapted to reflect such cultural differences (Leong and Lau, 2001). Additionally, the mental healthcare system lacks language-concordant services despite 35% of Asian Americans reporting limited English proficiency. Currently, there is a significant shortage of interpreters and psychosocial providers that can support Asian Americans in their native languages (Kim et al., 2020).

Regarding research on Asian American mental health, several findings (Alvarez et al., 2019; Lipson et al., 2018; American Psychological Association, 2022) have reported that, compared to other racial groups, Asian Americans have the lowest prevalence of mental health problems, including serious mental illness. For example, a review of four national surveys found Asian respondents had a 23.5% lifetime prevalence of mental disorders, the lowest rate compared to Black (37.0%), Latino (38.8%), and White (45.6%) respondents (Alvarez et al., 2019). However, current data on Asian mental health in the U.S. may not be reliable due to the previously mentioned concern of screening tools and their validity in measuring Asian American mental health. Jang and colleagues (2018) also highlight that many national surveys are only available in a limited number of Asian languages, minimizing the ability to capture a wider scope of groups and their unique mental health needs. Despite these shortcomings, researchers have
still found concerning mental health outcomes within the community. For example, serious mental illness grew among Asian Americans and Pacific Islanders (AAPI) between 18 and 25 years, with percentages increasing from 2.9% in 2008 to 5.6% in 2018. Considering the most severe cases of mental illness, suicide was reported to be the leading cause of death among non-Hispanic Asian or Pacific Islander individuals ages 15-24 years old in 2018 (Centers for Disease Control and Prevention, 2018). In addition, suicidal thoughts, plans, and attempts have risen substantially among AAPI young adults, with 7000 more suicide attempts in 2018 compared to 2008 (Mental Health America, n.d.).

**Mental Health Service Utilization**

Even with uncertainties over the scope of mental illness, researchers have still identified a significant disparity in mental health service utilization among Asian Americans with some form of mental illness. For example, in a study on mental health among college students of color, Asian/Asian American students were found to have the lowest odds of medication use and lowest odds of therapy use among those with a mental health concern (Lipson et al., 2018). In addition, among those with serious psychological distress, only 28.9% of Asian respondents received mental health treatment within a year compared to 53.3% of White individuals (Yang et al., 2019). Utilization also varies significantly by Asian ethnic group; in a study on mental health service use, Asian Indian and Chinese respondents were found to have little to no change in self-reported service utilization despite increased rates of psychological distress, while Filipino Americans displayed an increase in utilization as psychological distress rates increased (Balaraman et al., 2022). This finding reinforces the importance of research that examines variation within the Asian American population.
Acculturative Stress Among Asian Americans

Contributing factors to low mental health service utilization among Asian Americans include cultural values and the current stigmatization of mental illness within this group. Many Asian communities view psychological issues as shameful (Leong and Lau, 2001), and this perception derives from the cultural importance of maintaining familial image (Chu and Sue, 2011) and the idea that having a mental illness perpetuates a negative image and “burdens” others (Augsberger et al., 2015). This cultural pressure to demonstrate self-control and limit one’s emotions (Hall and Yee, 2012) may push Asian Americans to forgo mental health service use, as they do not want to compromise their family’s integrity within their community. When examining Asian American college students, researchers found higher levels of enculturation (i.e., being more strongly rooted in one’s indigenous cultural values) were associated with less positive attitudes towards seeking mental health resources (Kim and Omizo, 2003). This suggests a link between acculturation and attitudes toward mental health.

Acculturation and acculturative stress have been identified as mechanisms of mental health and respective service use. Acculturation involves adopting cultural characteristics (i.e., language, values, relationships, behaviors) in one’s new country of residence, thereby shifting their typical cultural patterns (Hwang and Ting, 2008; Miller et al., 2011). Acculturative stress is the stress paired with the process of adjusting to a new culture. This may include discrimination, disruptions to family dynamics, and challenges with learning a new language (Hwang and Ting, 2008). In a 2008 study on Asian American college students, researchers found lower levels of acculturation were associated with increased psychological distress and greater risk of clinical depression. They also found perceived acculturative stress significantly increased the odds of having clinical depression by 1.37, and higher association with mainstream culture in the U.S.
was associated with lower risk for clinical depression (Hwang and Ting, 2008). Regarding
service utilization, acculturation has been identified as a driver for greater acceptance of mental
health service use, as Asian Americans become more accustomed to the Western mold and
experience fewer language barriers (Panelo, 2010). Generational status also plays a role in
utilization, as research has found those who are third or later generation had higher rates of
mental health service use (10.1%) compared to first (2.2%) or second (3.5%) generation Asian
Americans (Abe-Kim et al., 2007).

**Intergenerational Conflict Among Asian Americans**

One component of acculturative stress that may be pertinent to mental health among
Asian Americans is intergenerational conflict. As the Asian American population has grown in
the U.S. (therefore built a greater base of U.S.-born children), intergenerational conflict has
become a more prevalent issue among Asian American communities. Intergenerational conflict
represents conflict between older and younger generations (Kim, 2015). While intergenerational
conflict can occur across all racial and ethnic groups, Asian American families often experience
a unique process of conflict, as Asian cultures frequently prioritize family obligation and expect
deference to parental requests even throughout adulthood (Cheng et al., 2015).

A key layer that can contribute to intergenerational conflict among Asian Americans is
the varying levels of acculturation between older and younger generations, especially if they
differ in birth country and the child spends more time in U.S. cultural spaces. Researchers have
discussed how the acculturation gap between parents and children may widen if the child enters
college, an environment that may pressure an individual to assimilate with U.S. culture more
quickly. These differences in cultural values can exacerbate instances of intergenerational
conflict (Castillo et al., 2012).
A consequence of intergenerational conflict is not only the conflict itself, but also the risk of poorer mental health outcomes. A 2007 longitudinal study on Southeast Asian American Adolescents found ties between perceived intergenerational discrepancy in acculturation, intergenerational conflict, and symptoms of depression (Ying and Han, 2007). In addition, a more recent 2021 study on emerging Asian American adults found intergenerational conflict with mothers was associated with greater levels of depressive symptoms (Cheng et al., 2015).

**Family Harmony and Conflict**

In general, many Asian cultures greatly value family harmony and avoiding strains in interpersonal relationships (Leung et al., 2011). Kavikondala and colleagues (2016), who developed the Family Harmony Scale, identify the components of family harmony as effective communication, conflict resolution, forbearance, and quality time with family. They also add the component of family identity to specifically illustrate family harmony among Asian American families. With family being a core source of identity and social support among Asian Americans, family harmony is paramount to address when considering Asian American wellbeing outcomes. Several studies refer to the Confucian ideal of family harmony and the ties between harmony and outcomes of happiness and wellbeing (Lam et al., 2012; Ip, 2014).

Considering potential counterparts to family harmony, family conflict can also occur among Asian families. Such conflict may come in the form of aggression or collision of opinions. Family members may also experience conflict when allocating authority and financial resources among the household (Kim, 2015). Additionally, family conflict can be shaped by the presence of caregiving, which is greatly influenced by family structure (Kim, 2015). Kim (2015) identifies different types of conflict, particularly relational conflict, where “two or more family members believe that their desires clash with one another” (p. 10). They highlight
intergenerational conflict as a subtype of relational conflict, this type being experienced between older and younger generations as they experience gaps in cultural alignment.

Considering related consequences, intergenerational conflict has been found to highly correlate with depressive symptoms (Cheng et al., 2015). It can also be a source of acculturative stress, therefore a mechanism for mental health outcomes. And, as mentioned previously, Asian Americans often experience mental health stigma within their community, expanding upon the stress of cultural misalignment (i.e., language barriers, different perspectives on gender roles). Between parents and elders dismissing mental health concerns and the emphasis on what is considered a “positive” image (free of mental illness) (Augsberger et al., 2015), such lack of alignment on mental health issues can intensify intergenerational conflict and harm opportunities to address mental wellness among Asian Americans.

Existing Literature

The current literature lacks examination of the relationship between family structure and outcomes of family harmony and conflict, and how such harmony and conflict can influence mental wellbeing. In one partial exception, Walton and Takeuchi (2010) analyzed how family structure and processes among Asian American families relate to reported psychological distress; however, they did not measure outcomes of family harmony or conflict. They used the following variables to assess self-rated physical health status and mental health outcomes (psychological distress): marital status, family composition (presence of dependent children and nondependent family size), and family processes (family cohesion and family conflict). They also stratified their analyses by gender and nativity (i.e., foreign-born vs. U.S.-born). Their results indicated that the presence of extended family in the household was linked to lower mental distress only among men and U.S.-born Asian Americans. Their results also suggested the impact of family
structure on wellbeing is not universal across Asian Americans. In a Chinese study on family structure and its relationship with social development, emotion regulation, and the parent–child relationship, Hong and Wang (2023) found that an increase in number of children in a family may decrease skills in emotion regulation. However, these results did not derive from an Asian American population, but rather a sample of the Guangdong Province in China.

Outside of Asian American samples, some studies have identified a relationship between the presence of grandparents and mental health outcomes. Ruiz and Silverstein (2007) found that close relationships with grandparents decreased symptoms of depression. Mustillo and colleagues (2020) also found that co-residing grandparents in a household could mediate parent work-to-family conflict (where roles at work conflict with family responsibilities) and provide valuable social support. They also found within-family conflicts were rare when grandparents co-resided in the household.

**Current Study**

The current study on the relationship between family structure and family harmony and conflict aims to expand existing research by analyzing a mechanism through which family structure may affect mental health outcomes. With the importance of family among Asian cultures, illuminating the relationship between family structure and family harmony and conflict may help pinpoint a pathway towards improved psychological outcomes. The current study had four specific aims. First, it aimed to identify whether there are significant associations between family structure and reports of family harmony and family conflict. Second, it aimed to identify whether the presence of certain members of the household is associated with family harmony and family conflict. In addition, the current study included secondary aims to examine possible linkages between reports of family harmony and family conflict and mental health outcomes and
illuminate possible explanations behind the given findings through qualitative responses on family dynamics and identity.

**Methods**

A multi-method cross-sectional examination was performed through a newly developed survey on the online Qualtrics platform. The Institutional Review Board (IRB) of Yale University approved an exemption request for this protocol. Informed consent was provided by each survey respondent prior to participation through a consent survey, also distributed on the online Qualtrics platform. As compensation for participation, respondents were provided the opportunity to enter a raffle to win one of five $100 gift cards. All survey responses were anonymous, and personal contact information was collected in a separate survey that was not linked to survey responses so that selected participants could be provided compensation.

**Survey Development**

The study survey included quantitative measures that captured demographic characteristics, questions on family structure, and validated tools on the following outcomes: family harmony, family conflict, emotional regulation, depression and anxiety screenings, ethnic identity, and experiences with discrimination.

The conclusion of the survey included a qualitative section with open-ended questions so that participants could have an opportunity to describe their personal experiences in more detail, thereby providing a better understanding of Asian American experiences in different family environments. Participants were not required to complete this section and were encouraged to offer responses to the extent to which they were comfortable.
Recruitment and Data Collection

Recruitment primarily took place among Yale college and graduate students via email distribution, group messaging platforms, and word of mouth. Email distributions were primarily sent from Asian American cultural groups on campus, as well as the Yale School of Public Health’s student groups. Snowball sampling was also utilized, as participants were encouraged to share the survey link with eligible friends and family. Recruitment was expanded to the public through social media platforms and national Asian American networks. Two separate, identical surveys were created on Qualtrics to distinguish Yale affiliates and their networks versus individuals from the public. Only a small proportion of participants who completed the survey in full were from the public; therefore, data analysis did not consider source of recruitment (Yale versus public). Incomplete survey responses were excluded from the analytic sample.

Participants

Participant Characteristics

A total of 104 individuals consented to participate in the study survey and completed the survey in full. The study population consisted of Asian American young adults (18-25 years old) who have lived in the U.S. for at least 5 years growing up (that is, between 0-18 years old).

Demographics

The following demographics were collected: age, gender identity, sexual orientation, Asian American ethnic subgroup, duration in the U.S., birth country, and socioeconomic status (SES) for the majority of childhood.

Age was reported by participants as a numerical value between 18 and 25 years old. Options for reporting gender identity included cisgender woman, cisgender man, non-binary, transgender woman, and transgender man. Participants could also specify a gender identity not
listed. Options for reporting sexual orientation included lesbian, gay, bisexual, pansexual, queer, asexual, straight, and an option to specify a sexual identity not listed.

Options for reporting Asian American ethnic subgroup were grouped by region: East Asian, Southeast Asian, and South Asian. East Asian included those who are Chinese, Japanese, Korean, Okinawan, Taiwanese, or Tibetan. Southeast Asian included those who are Bruneian, Burmese, Cambodian, Filipino, Hmong, Indonesian, Laotian, Malaysian, Mien, Singaporean, Timorese, Thai, or Vietnamese. South Asian included those who are Bangladeshi, Bhutanese, Indian, Maldivians, Nepali, Pakistani, or Sri Lankan. Respondents were also able to report non-Asian identities, including Black/African American, Hispanic/Latino/Spanish, Indigenous American, Native Hawaiian/Pacific Islander, and White.

Duration in the U.S. was reported as less than 2 years, between 2-5 years, 5-10 years, more than 10 years, or identifying as second generation (i.e., born and raised in the U.S.). Birth country was reported as being born in the U.S. or another country, with an option to specify. SES was reported as low income, lower-middle income, upper-middle income, or high income.

**Coding for Analysis.** The categorical variables of gender identity, sexual orientation, and ethnic subgroup were converted to dummy variables for data analysis. Seeing non-binary participants made up a small subset of the sample (n=9) and that previous research has shown that those identifying as female or non-binary are at a higher risk of mental illness (Yu, 2018; Tordoff, 2022), gender identity was coded such that identifying as a woman or non-binary was equal to 1, with identifying as a man being the reference. Sexual orientation was coded such that identifying as LGBTQ+ was equal to 1, with identifying as straight being the reference. Asian American ethnic subgroup was coded such that identifying as East Asian was equal to 1, with the remaining subgroups serving as a reference.
Data Analysis

Quantitative Measures

Primary Caregivers. Respondents were asked to report the number of primary caregivers (0, 1, 2, or more than 2) they had during their childhood. This could include biological parents, adoptive parents, stepparents, grandparents, or other family members (i.e., uncle, aunt, sibling, cousin). They were then asked to report details (e.g., ethnic subgroup, English proficiency, education, U.S. citizenship) on their primary caregiver(s). If a respondent reported having more than 2 caregivers, they were asked to provide details on two of those caregivers.

Primary Predictors. The following measures were primary predictors in this analysis.

Number of Primary Caregivers Present for Entire Childhood. When providing details on their primary caregiver(s), respondents reported the number of primary caregivers that lived in their household for their entire childhood. “Entire childhood” was defined as between the ages of 0 and 18 years. The total number of primary caregivers present for the respondent’s entire childhood was calculated by creating a dummy variable for each report of a primary caregiver being present for the entire childhood, then adding together each primary caregiver’s outcome.

Presence of Grandparents During Childhood. Respondents reported the number of grandparents that lived in their household for at least one year of childhood. This included any grandparent identified as a primary caregiver. A dummy variable was created to reflect whether a grandparent or grandparents were present in the respondent’s household during their childhood. This was calculated based on whether the number of grandparents reported was above 0.

Presence of Other Extended Family During Childhood. Respondents reported the number of aunts, uncles, siblings of primary caregivers, as well as other extended relatives that lived with them for at least one year of their childhood (that is, between 0 and 18 years old). A
dummy variable was created to reflect whether extended family was present in the respondent's household during their childhood. This was calculated based on whether the number reported in any of these categories was above 0. This variable excludes the presence of grandparents.

**Number of Siblings During Childhood.** Respondents reported the number of siblings that lived in their household for at least one year of their childhood. This measure was kept as an integer for data analysis.

**Outcomes of Interest.** The following validated scales were used as outcomes of interest.

**Family Harmony Scale (FHS).** Family harmony was measured using the Family Harmony Scale (FHS), a validated 5-item scale that asks respondents to score their level of agreement (1 = “Strongly Disagree” to 5 = “Strongly Agree”) with five statements related to family functioning, day-to-day interactions, accommodation in the family, level of pride in family, and harmony (Kavikondala et al., 2016). Sample items include “My family functions well for all members” and “My family is harmonious.” FHS scores were calculated by identifying the sum of Likert-scale points, with possible values ranging from 5 to 25. Cronbach’s alpha (α) in the current study was 0.85.

**Asian American Family Conflicts Scale (FCS).** Family conflict was measured using the Asian American Family Conflicts Scale (FCS), a validated 10-item scale that asks respondents to rate the likelihood (1 = “Never” to 5 = “Almost always”) and severity (1 = “Not at all” to 5 = “Extremely”) of an event of conflict (Lee et al., 2000). Sample items include “Your parents tell you what to do with your life, but you want to make your own decisions” and “Your parents demand that you always show respect for elders, but you believe in showing respect only if they deserve it.” FCS likelihood and severity scores were each calculated by identifying the sums of Likert-scale points, with possible scores for each ranging from 10 to 50 (α = 0.92).
**Patient Health Questionnaire-8 (PHQ-8).** Severity of depressive symptoms were measured using the Patient Health Questionnaire-8 (PHQ-8), a validated 8-item screening that asks respondents how frequently (0 = “Not at all” to 3 = “Nearly every day”) they experience certain symptoms of depression over the last 2 weeks (Kroenke et al., 2009). Sample statements include “Little interest or pleasure in doing things” and “Trouble falling or staying asleep, or sleeping too much.” PHQ-8 scores were calculated by identifying the sum of scale points, with possible scores ranging from 0 to 24 (α = 0.90).

**Generalized Anxiety Disorder-7 (GAD-7).** Severity of anxiety symptoms were measured using the Generalized Anxiety Disorder-7 (GAD-7), a validated 7-item screening that asks respondents how frequently (0 = “Not at all” to 3 = “Nearly every day”) they experience certain symptoms of anxiety over the last 2 weeks (Spitzer et al., 2006). Sample statements include “Feeling nervous, anxious, or on edge” and “Being so restless that it is hard to sit still.” GAD-7 scores were calculated by identifying the sum of scale points, with possible scores ranging from 0 to 21 (α = 0.90).

**Difficulties in Emotion Regulation Scale-SF (DERS-SF).** Emotional regulation was measured using the Difficulties in Emotion Regulation Scale-SF (DERS-SF), an 18-item abbreviated version of the DERS, which asks respondents how frequently (1 = “Almost never” to 5 = “Almost always”) they experience events related to emotional regulation (Kaufman et al., 2016). Sample statements include “When I am upset, I acknowledge my emotions” and “When I am upset, I have difficulty concentrating.” Statements are grouped by the following 6 categories: strategies, nonacceptance, impulse, goals, awareness, and clarity. More specifically, these categories reflect “limited access to emotion regulation strategies,” “nonacceptance of emotional responses,” “impulse control difficulties,” “difficulties engaging in goal-directed behavior,” lack
of emotional awareness,” and “lack of emotional clarity.” Items in the awareness category were reverse coded. DERS-SF scores for each category were calculated by identifying the sum of scale points, with possible scores for each ranging from 1 to 15 (α = 0.87). A higher score reflected greater difficulty with emotion regulation.

**Qualitative Measures**

The qualitative portion of the survey included questions on the respondent’s family structure compared to the typical nuclear family; the respondent’s perspective on family harmony and how they would have improved harmony in their family during their upbringing; how the respondent’s family structure influenced their cultural identity; and positive outcomes from their upbringing.

**Data Analysis Approach**

**Quantitative Data Analysis Approach.** R statistical software (RStudio) was used to define and develop the study’s variables of interest and analyze quantitative data. Due to the small sample size of this study, significance was defined as p<0.10.

A preliminary analysis was conducted on demographic characteristics, predictors, and outcomes of interest. Descriptive statistics were pulled, as seen in Tables 1, 2, and 3. Pearson correlations were computed to gain insight on the relationship between the demographic characteristics and outcomes of interest, as well as the relationship between the primary predictors (characteristics of family structure) and outcomes of interest.

Multivariable linear regression analyses were performed to examine characteristics of family structure as predictors of family harmony and conflict. A second set of multivariable linear regression analysis was performed to examine family structure, harmony, and conflict as predictors of depression, anxiety, and emotion regulation. All multivariable analyses were run
with the following covariates: age, identifying as a woman or non-binary, identifying as LGBTQ+, identifying as East Asian, being born in the U.S., and SES.

**Qualitative Data Analysis Approach.** A rapid qualitative analysis was performed to assess open-ended responses offered in the study survey. This included a thematic analysis to supplement outcomes from the quantitative analyses.

**Positionality Statement**

The primary investigator for this study is a 26-year-old Chinese American woman who was born and raised in a Massachusetts suburban town. She grew up in an upper-middle-class household with a structure similar to a typical nuclear family (mother, father, older sister, and older brother). While most of her extended family is on the East Coast of the U.S., she did not grow up with any extended family members residing in her household. Her first language is English, and she is not fluent in Mandarin or her parents’ dialect (Fuzhounese). She is a Master of Public Health candidate at the Yale School of Public Health. These components of her identity may have brought bias to this study. Because she identifies as Asian American, her shared identity with the study population may have influenced the decision-making process when developing a plan for the study analysis, including which measures to examine. Her individual experiences growing up in an Asian American household may have also influenced her interpretations of the qualitative responses included in the study survey, as she has shared some of these experiences herself. However, she also only represents one childhood experience among countless when considering the Asian American population. This may have limited the questions asked and considerations when developing this study.
Results

Quantitative Analyses

Descriptive Statistics

Table 1 includes descriptive statistics of the study population’s demographics. The mean age was 22.40 years old (SD = 2.33), and most respondents identified as a cisgender woman (73.1%). More than half (57.7%) of respondents identified as straight, while 41.3% identified as LGBTQ+. Most participants identified as East Asian (65.4%). In addition, most indicated they were born in the U.S. (87.5%). Finally, most participants reported growing up with an upper-middle income or greater for the majority of their childhood (53.8%).

Table 2 includes descriptive statistics on the study’s predictors of interest. Most participants (73.1%) reported having two primary caregivers present during their childhood. More than half (59.6%) of participants reported having at least one grandparent present in their household during childhood. However, 68.3% of participants reported having no other extended family present. Most participants (64.4%) reported having one sibling during their childhood.

Table 3 includes descriptive statistics on the validated scales used for this analysis. Among this study population, the mean FHS score was 17.94, while FCS likelihood and seriousness scores had means of 24.38 and 20.14, respectively. The mean PHQ-8 score was 6.05, a score that reflects mild depressive symptoms. The mean GAD-7 score was 5.96, reflecting mild anxiety severity. Mean scores for the different categories under the DERS-SF ranged from 4.92 (impulse) to 9.43 (goals).
<table>
<thead>
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<th>Variable</th>
<th>Number Reported (N=104)</th>
<th>Percentage of Sample (%)</th>
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<td>Age (years)</td>
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<td>Mode = 25.0</td>
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### Table 2
Descriptive Statistics of Study Predictors

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### Table 3
Descriptive Statistics of Validated Scales

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<td>Asian American Family Conflicts Scale (FCS)</td>
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<td>Seriousness score</td>
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<td>PHQ-8 (Depression Screening)</td>
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<td>GAD-7 (Anxiety Screening)</td>
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<td>Difficulties in Emotion Regulation Scale (DERS-SF)</td>
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<td>Strategies score</td>
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<td>Nonacceptance score</td>
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<td>Impulse score</td>
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<td>Goals score</td>
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<td>Awareness score</td>
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<tr>
<td>Clarity score</td>
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Correlational Analysis

Table 4 includes a Pearson correlation matrix of all variables of interest in this analysis. This includes demographic characteristics, the predictors of focus, and the utilized validated tools. Among the primary predictors and outcomes of interest, significant relationships were found between the presence of other extended family and reported anxiety symptom severity ($r = -0.17$, $p = 0.080$), as well as number of siblings and reported anxiety symptom severity ($r = 0.17$, $p = 0.085$). The presence of other extended family was associated with significantly lower anxiety symptom severity, while a higher number of siblings was significantly associated with higher anxiety symptom severity. A significant relationship was also found between number of siblings and difficulties in emotion regulation, specifically clarity ($r = 0.30$, $p = 0.002$), such that participants with more siblings reported higher scores of difficulty with emotional clarity.

Multivariable Linear Regression: Primary Analysis

Family Structure Predicting Family Harmony and Conflict. A multilinear regression was performed, with family structure predicting family harmony and conflict, controlling for age, identifying as a woman or non-binary, identifying as LGBTQ+, identifying as East Asian, being born in the U.S., and SES. Table 5 reflects the results of this analysis. No significant relationships were found between the components of family structure and reported family harmony; however, there was a significant relationship between the presence of one or more grandparents during childhood and both components of reported family conflict (likelihood and seriousness). The presence of one or more grandparents during childhood was associated with a $3.47$ ($SE = 1.55$) higher family conflict likelihood score ($p = 0.027$) and a $2.84$ ($SE = 1.35$) higher average family conflict seriousness score ($p = 0.038$), compared to the absence of grandparents.
Multivariable Linear Regression: Secondary Analysis

Family Structure Predicting Mental Health Outcomes. A multilinear regression was performed, with family structure predicting reported mental health outcomes (depression symptom severity, anxiety symptom severity, and difficulties in emotion regulation), controlling for age, identifying as a woman, identifying as LBGTQ+, identifying as East Asian, being born in the U.S., and SES. Table 6 and Table 7 reflect the results of this analysis. No significant relationships were found between components of family structure and depression symptom severity. There was also no significance found between components of family structure and most categories of difficulties in emotion regulation. There was a significant relationship between the presence of extended family (excluding grandparents) and anxiety symptom severity. Specifically, the presence of other extended family decreased the average GAD-7 score by 2.44 (p = 0.035), suggesting the presence of other extended family (e.g., cousins, aunts) is associated with lower symptoms of anxiety. In addition, a significant relationship was found between number of siblings and difficulties with emotional clarity. As the number of siblings increased by 1, DERS-SF emotional clarity score increased by 0.86 (p = 0.005).

Family Harmony and Conflict Predicting Mental Health Outcomes. A multilinear regression was performed, with scores of family harmony and conflict predicting reported mental health outcomes (depression symptom severity, anxiety symptom severity, and difficulties in emotion regulation). Table 8 and Table 9 reflect the results of this analysis. No significant relationships were found between family harmony and conflict scores and the study’s measures of mental health.
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<td>7. # of primary caregivers present</td>
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<td>16. DERS Strategies</td>
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<td>17. DERS Nonacceptance</td>
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<td>0.30**</td>
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+ p < .10, * p < .05, ** p < .01, *** p < .001
### Table 5
**Multivariable Linear Regression of Family Structure Predicting Family Harmony and Conflict**

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<tr>
<th>Predictor</th>
<th>Family Harmony</th>
<th>Family Conflict (Likelihood)</th>
<th>Family Conflict (Seriousness)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>SE</td>
<td>Estimate</td>
</tr>
<tr>
<td>Number of Primary Caregivers Present for Entire Childhood</td>
<td>-0.33</td>
<td>0.59</td>
<td>-0.86</td>
</tr>
<tr>
<td>Presence of Grandparent(s) During Childhood</td>
<td>-0.46</td>
<td>0.76</td>
<td>3.47*</td>
</tr>
<tr>
<td>Presence of Other Extended Family During Childhood</td>
<td>0.36</td>
<td>0.82</td>
<td>-0.75</td>
</tr>
<tr>
<td>Number of Siblings During Childhood</td>
<td>-0.07</td>
<td>0.45</td>
<td>-0.47</td>
</tr>
</tbody>
</table>

+ p < .10, * p < .05, ** p < .01, *** p < .001.
Note: This analysis was performed with the following covariates: age, identifying as a woman or non-binary, identifying as LGBTQ+, identifying as East Asian, being born in the U.S., and SES.

### Table 6
**Multivariable Linear Regression of Family Structure Predicting Mental Health Outcomes (PHQ-8 and GAD-7)**

<table>
<thead>
<tr>
<th>Predictor</th>
<th>PHQ-8</th>
<th>GAD-7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>SE</td>
</tr>
<tr>
<td>Number of Primary Caregivers Present for Entire Childhood</td>
<td>-0.71</td>
<td>0.83</td>
</tr>
<tr>
<td>Presence of Grandparent(s) During Childhood</td>
<td>0.61</td>
<td>1.07</td>
</tr>
<tr>
<td>Presence of Other Extended Family During Childhood</td>
<td>0.30</td>
<td>1.16</td>
</tr>
<tr>
<td>Number of Siblings During Childhood</td>
<td>0.53</td>
<td>0.63</td>
</tr>
</tbody>
</table>

+ p < .10, * p < .05, ** p < .01, *** p < .001.
Note: This analysis was performed with the following covariates: age, identifying as a woman or non-binary, identifying as LGBTQ+, identifying as East Asian, being born in the U.S., and SES.
Table 7
Multivariable Linear Regression of Family Structure Predicting Mental Health Outcomes (DERS-SF)

<table>
<thead>
<tr>
<th>Predictor</th>
<th>DERS-SF (Strategies)</th>
<th>DERS-SF (Nonacceptance)</th>
<th>DERS-SF (Impulse)</th>
<th>DERS-SF (Goals)</th>
<th>DERS-SF (Awareness)</th>
<th>DERS-SF (Clarity)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Primary Caregivers Present for Entire Childhood</td>
<td>-0.07 0.44</td>
<td>0.07 0.53</td>
<td>0.27 0.36</td>
<td>-0.44 0.53</td>
<td>-0.47 0.39</td>
<td>0.35 0.41</td>
</tr>
<tr>
<td>Presence of Grandparent(s) During Childhood</td>
<td>-0.24 0.57</td>
<td>-0.42 0.67</td>
<td>-0.21 0.47</td>
<td>0.21 0.68</td>
<td>-0.11 0.51</td>
<td>-0.19 0.53</td>
</tr>
<tr>
<td>Presence of Other Extended Family During Childhood</td>
<td>-0.28 0.61</td>
<td>-0.11 0.73</td>
<td>0.41 0.50</td>
<td>0.03 0.74</td>
<td>-0.12 0.54</td>
<td>-0.44 0.57</td>
</tr>
<tr>
<td>Number of Siblings During Childhood</td>
<td>-0.46 0.33</td>
<td>0.09 0.40</td>
<td>0.32 0.27</td>
<td>-0.12 0.40</td>
<td>0.26 0.30</td>
<td>0.86** 0.30</td>
</tr>
</tbody>
</table>

+ p < .10. * p < .05. ** p < .01. *** p < .001.
Note: This analysis was performed with the following covariates: age, identifying as a woman or non-binary, identifying as LGBTQ+, identifying as East Asian, being born in the U.S., and SES.

Table 8
Multivariable Linear Regression of Family Harmony and Conflict Predicting Mental Health Outcomes (PHQ-8 and GAD-7)

<table>
<thead>
<tr>
<th>Predictor</th>
<th>PHQ-8</th>
<th>GAD-7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>SE</td>
</tr>
<tr>
<td>Family Harmony Scale (FHS)</td>
<td>-0.09</td>
<td>0.14</td>
</tr>
<tr>
<td>Asian American Family Conflicts Scale (FCS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Likelihood</td>
<td>0.11</td>
<td>0.07</td>
</tr>
<tr>
<td>Seriousness</td>
<td>0.10</td>
<td>0.08</td>
</tr>
</tbody>
</table>

+ p < .10. * p < .05. ** p < .01. *** p < .001.
Note: This analysis was performed with the following covariates: age, identifying as a woman or non-binary, identifying as LGBTQ+, identifying as East Asian, being born in the U.S., and SES.
Table 9
Multivariable Linear Regression of Family Harmony and Conflict Predicting Mental Health Outcomes (DERS-SF)

<table>
<thead>
<tr>
<th>Predictor</th>
<th>DERS-SF (Strategies)</th>
<th>DERS-SF (Nonacceptance)</th>
<th>DERS-SF (Impulse)</th>
<th>DERS-SF (Goals)</th>
<th>DERS-SF (Awareness)</th>
<th>DERS-SF (Clarity)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Harmony Scale (FHS)</td>
<td>0.01</td>
<td>0.08</td>
<td>-0.04</td>
<td>0.09</td>
<td>-0.04</td>
<td>0.06</td>
</tr>
<tr>
<td>Asian American Family Conflicts Scale (FCS)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Likelihood</td>
<td>0.04</td>
<td>0.04</td>
<td>0.07</td>
<td>0.04</td>
<td>0.01</td>
<td>0.03</td>
</tr>
<tr>
<td>Seriousness</td>
<td>0.03</td>
<td>0.04</td>
<td>0.06</td>
<td>0.05</td>
<td>0.03</td>
<td>0.03</td>
</tr>
</tbody>
</table>

+ p < .10, * p < .05, ** p < .01, *** p < .001

Note: This analysis was performed with the following covariates: age, identifying as a woman or non-binary, identifying as LGBTQ+, identifying as East Asian, being born in the U.S., and SES.
Qualitative Analysis

Several themes were identified from qualitative responses relating to participant perceptions of family harmony, the role of family in cultural identity, and positive personal outcomes from the family household.

Perceptions of Family Harmony

Participants were asked how they defined family harmony and what they would change from their childhood to improve family harmony. Three themes emerged from qualitative responses related to family harmony: mutual respect, communication, and openness as a means to improving the child-parent relationship.

Mutual respect was a prevalent theme among responses. One participant described harmony as the “balance of respect between all members of the family, regardless of age.” Along the same vein of widespread respect, another respondent called for “mutual respect for and from everyone.” Participants also described harmony as having respect for one’s independence, as well as pairing respect with trust and love for each other.

Open communication was frequently discussed as a contributor to family harmony. A number of respondents expressed the desire to communicate emotions and have more freedom of expression without fear. One respondent stated, “I think in my household if we were willing to voice our opinions a little more and not worry about looking stupid so often, that would improve things. Less stress to try and say what's right all the time, otherwise you get a lecture.” Another participant specified a family is not harmonious if one must carefully frame their words out of fear of repercussion from the family’s elders. Several participants also vocalized the need for not only more open and accepted communication but also more communication generally. For example, one participant noted the desire for “[more] reciprocal dialogue,” writing, “I felt that
my opinions didn't matter and were ignored at times.” Another respondent said their family often moved past situations “without talking about it” and “either bottle[d] it up or [gave] the silent treatment.” Some participants even compared their experience with that of their friends and/or White families in their neighborhoods, indicating a difference between their upbringing and the seemingly more “openly affectionate” communication they observed among others.

An extension of open communication, several participants stated their desire for more openness and understanding among their families to improve the child-parent relationship. Some wrote about openness to freely discuss issues and initiate any relevant change among their parents. Others discussed the need for openness to other family members’ ideas and tendencies “despite generational and cultural gaps.” Also commenting on generational roles, one participant wrote, “I would change my [parents’] open-mindedness and willingness to help/mentor as opposed to parent.” Another respondent commented on changing the dynamic they have with their parents, which currently views the children as a “lesser entity” and requires they “must unquestionably obey their parents.”

**Role of Family Structure in Cultural Identity**

Participants were asked to describe how their family’s structure had an impact on their own cultural identity. One major theme that arose from respondents was the presence of grandparents strengthening cultural identity, as well as maintaining such identity. Several participants discuss how having these family members in their household growing up helped them sustain their Asian identity. One participant said, “I feel that I have a strong sense of my cultural identity because I grew up mostly being raised by my grandparents who do not speak English and spent their entire lives in China.” Interestingly, several other respondents associated their strong sense of Asian identity with the language linked to their cultural identity. For
example, one participant stated, “I spent significant time with my grandparents who only spoke Chinese and therefore grew more connected with Chinese culture.” Some participants also identified their relationships with their grandparents as a motivator to have a strong connection with their culture. One respondent said, “[Family is] one of the biggest reasons I hang onto my Asian identity (so I feel close to my grandparents).”

**Positive Impacts of Family Household**

Participants were asked to describe how the household they grew up in positively impacted who they are today. Two themes emerged from these qualitative responses: the value of hard work and developing independence.

A number of respondents reflected on the importance of hard work and how their families pushed them to value a strong work ethic. One respondent said their family taught that “having a strong work ethic will always set you apart and take you one step further than where you currently are at.” Another discussed how their upbringing in a household “marked by hard work and kindness despite being low income and stereotyped” helped them develop “personal resolve” and “expectations” of themselves. Adding a layer to the messaging of hard work, some participants noted the influence of their family members as models of dedicated work ethic. One respondent said, “My mom instilled in me, through direct teachings as well as indirectly from the story of her life, a strong belief in the value of education and hard work for everyone, no matter what gender.” Another participant also referred to their family working “hard to give [them] a better chance at success.” They stated, “that inspires me to make sure that I am always working hard to earn a place in this world that [I] can be proud of.”

Independence was another notable theme in responses to positive impacts of the family household; however, participants discussed independence to different capacities. Several
respondents wrote about their parents directly teaching them to be independent. In reference to their parents, one respondent said, “They’ve taught me, sometimes through very ‘tough love’, that I need to learn how to be independent, create my own success for a good future, and to take care of myself.” A different respondent provided an explanation behind them being taught to be self-sufficient, indicating their family quickly assimilated into American values, including independence. Other respondents described a different pathway to independence. While they describe the character trait itself as positive, they share that arriving to this point was a necessity due to the absence of parental support. For example, one respondent indicated, “I think I'm more independent and less reliant on others, if we want to think of it positively but I also know it's a result of not having support growing up.” Another participant shared a similar experience, explaining that their independence came from the need to take care of their younger sister while both of their parents worked.

**Discussion**

This study assessed the relationship between family structure and outcomes of family harmony and conflict among Asian American young adults. A secondary analysis examined mental health outcomes, with predictors of family structure and family harmony and conflict. The primary analysis revealed that the presence of a grandparent or grandparents during childhood was associated with higher likelihood and seriousness of family conflict. In addition, the presence of other extended family (excluding grandparents) was associated with significantly lower anxiety symptom severity. A higher number of siblings was also found to be significantly associated with higher difficulty with emotional clarity.

Considering the qualitative outcomes of this study, respondents described family harmony by primarily pinpointing their needs from their parents. This included having mutual
respect, maintaining open communication, and being open to the views of the children in the family. Regarding the impact of family structure on cultural identity, one major theme that arose was the presence of grandparents strengthening and maintaining cultural identity. When asked about the positive impacts of their family household growing up, respondents described their strong work ethic, as well as their independence.

These findings partially align with previous results in the literature. This study’s finding that the presence of extended family was associated with lower anxiety symptom severity aligns with Walton and Takeuchi’s (2010) finding that the presence of extended family in the household was linked to lower mental distress (among the men and U.S.-born Asian Americans in their sample). In addition, the finding that having a greater number of siblings is associated with higher difficulty in emotional clarity aligns with Hong and Wang’s (2023) conclusion that more children in a family could harm level of emotion regulation. However, the finding that the presence of grandparents could increase family conflict does not align with previous findings that grandparents co-residing in a household rarely lead to conflict (Mustillo et al., 2020). It is important to note, though, that Mustillo and colleagues (2020) did not focus on an Asian American population when examining the influence of co-residing grandparents.

The current study illuminates several considerations regarding the wellbeing of Asian Americans and their families. First, considering the results from the primary analysis, there may be a unique relationship between the presence of grandparents and family conflict, particularly among Asian American families. This could be linked to the risk for intergenerational conflict among Asian American families, as family members of several different generations may have varying levels of assimilation. These differences could lead to conflicting values and expectations within one household. This finding, however, is interesting with the qualitative
finding that grandparents could strengthen cultural identity, a phenomenon that may lead to
greater alignment in values in a household, which in turn could potentially decrease acculturative
stress and/or intergenerational conflict. Seeing these contrasting results, more examination may
be needed to pinpoint possible mechanisms of conflict when one or more grandparents are
present in the household.

Second, the finding that having more siblings was linked to higher difficulty in emotional
clarity aligned with Hong and Wang’s (2023) findings, which focused on families in China. This
contributes to the notion that the presence of more siblings in an Asian household could have
negative effects on an individual’s emotion regulation, regardless of country of residence.
Possible mechanisms behind this phenomenon could include disparate treatment of children in a
family based on individual factors (i.e., gender, age), expectations of children, and level of
communication between family members. While not a major theme among qualitative responses,
some respondents noted frustrations with being compared to their siblings (i.e., comparing
achievements). Disparate treatment based on accomplishments could be another possible
mechanism impacting emotion regulation as these specific expectations and comparisons add
mental burden on the individual.

Third, the finding that the presence of extended family was tied to lower mental distress
raises an interesting role such family members could have in improving mental health outcomes.
While grandparents were specified as contributors to stronger cultural identity, other extended
family members could be a valuable source of information for individuals as they explore
cultures within their family, as well as in their greater Asian communities. Such interactions
could support Asian Americans in solidifying their own cultural identity, especially as
individuals who are commonly caught between multiple different cultures and values.
Finally, the qualitative responses regarding the positive impacts of the family household highlight potential to reframe experiences of family conflict and individual negative perceptions of family dynamics. From the given responses, many respondents may have been able to develop a mental representation of their family that positively contributes to their individual character in adult life. This finding reflects value in asking Asian American individuals how they have grown into who they are today.

**Limitations**

There are several limitations of note when considering the results of this study. First, the sample size was small, limiting the study’s statistical power. In addition, most study participants derived from the Yale undergraduate and graduate community and those associated with these community members. This suggests much of the sample may carry a higher level of privilege as students with a higher level of education at an Ivy League institution. The sample was also predominantly East Asian, meaning it most likely does not reflect the heterogeneity of cultures found across Asian American communities.

In addition, the study survey was only distributed in English, and therefore did not capture individuals who are not proficient in reading and writing English. This also may have affected the responses of participants whose native language is not English; although they may be proficient in English, some may interpret the survey’s language in a different way.

As mentioned previously, the primary investigator of this study is also Asian American, so the study processes could have been influenced by this positionality as someone who has their own experiences as a member of the community. However, several individuals inside and outside of the Asian American community with varying experiences were consulted in the development of this study, including the study survey items.
Finally, this was a cross-sectional study that asked participants to recall details of their childhood and the composition of their family. Future research could pursue a longitudinal approach that collects this information in real time to improve accuracy, limit recall bias, and examine relationships prospectively.

Conclusion and Recommendations

In conclusion, this study offers several insights when considering the impact of family structure on family dynamics and individual mental wellbeing. First, the presence of grandparents in the household could increase risk for conflict within a household; however, the presence of other extended family members may lessen individual symptoms of anxiety. And, although grandparents were specified as facilitators of stronger cultural identity development, it is possible that extended family could fulfill this role as well. The positionality of grandparents and other extended family members should be taken into consideration among clinicians of both physical and mental health as they support the wellbeing of their Asian American patients. For example, it could be valuable to include family members beyond parents or siblings in patient care to potentially alleviate the individual’s stress levels. It could also be beneficial to understand the composition of a patient’s family (e.g., whether a grandparent is present in the household) to provide context when considering sources of family conflict and/or mental distress.

In addition, having more siblings may negatively impact individual emotion regulation, particularly emotional clarity. Considering the responses that discussed sibling comparison and the need for openness and communication to achieve family harmony, clinicians may want to consider their patient’s family history, as well as their current family structure. Such information could add context to the patient’s expression of mental wellbeing and feasible strategies to address relevant symptoms. For example, if an individual is experiencing added pressure to
succeed, it could be helpful to ask more about their siblings, as their parents may be continuously comparing them to one another. These findings related to family structure could also inform potential programming and points of intervention, such as building communication between family members and addressing sibling dynamics.

Regarding future research, there are several ways investigators could build upon this study’s findings. First and foremost, this study could be replicated with a larger sample and more balanced demographic characteristics to strengthen its results. In addition, knowing the heterogeneity across Asian American communities, it may be worth studying the relationship between family structure, family dynamics, and mental wellbeing among smaller subgroups of Asian Americans, whether it be by region (e.g., East Asian, South Asian) or racial/ethnic identity (e.g., Chinese, Hmong, Indian). Considering the methods of the study itself, future research may consider studying other components of family structure, such as parental/guardian presence, more depth on sibling structure, and nativity of each member of the family.
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