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Acculturative Family Distancing (AFD) and Depression in Chinese American Families

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Abstract

Objective—Our knowledge of acculturative processes and their impact on immigrant families remains quite limited. Acculturative Family Distancing (AFD) is the distancing that occurs between immigrant parents and their children, and is caused by breakdowns in communication and cultural value differences. It is a more proximal and problem-focused formulation of the acculturation gap and is hypothesized to increase depression via family conflict.

Method—Data were collected from 105 Chinese American high school students and their mothers. Rasch modeling was used to refine the AFD measure and structural equation modeling was used to determine the effects of AFD on youth and maternal depression.

Results—Findings indicate that greater AFD was associated with higher depressive symptoms and risk for clinical depression. Family conflict partially mediated this relation for youth, whereas for mothers, AFD directly increased risk for depression. Greater mother-child heritage enculturation discrepancies were associated with greater mother and child AFD. Mainstream acculturation discrepancies and language gaps between mothers and youth were not significantly associated with any of the primary outcome variables.

Conclusions—Results highlight the need to better understand how AFD and other acculturation-gap phenomena affect immigrant mental health. They also underscore the need to develop prevention and intervention programs that target communication difficulties and intergenerational cultural value differences.

Keywords

acculturation gap; depression; family; Chinese American; acculturative family distancing

Acculturative Family Distancing (AFD) and Depression in Chinese American Families

According to census reports, foreign-born immigrants currently make up 11.1% (31 million) of the U.S. population and have grown rapidly over the years (57% between 1990–2000) (Larsen, 2004). Despite our quickly diversifying population, our understanding of how acculturative processes impact ethnic minority families and our ability to develop effective therapeutic interventions remains limited. This is especially problematic given that ethnic minorities may be at greater risk for developing mental and physical illnesses as they acculturate and across multiple generations (Escobar & Vega, 2000; Kessler et al., 1994). Given that Asian Americans (with Chinese Americans being the largest subgroup, comprising over 2.7 million) are proportionately the fastest growing minority group in the U.S., understanding the factors that affect their mental health status is of utmost importance (U.S. Census Bureau, 2002). Recent studies indicate that major depression is a significant problem for the Chinese American adults and youth (Hwang, Chun, Takeuchi, Myers, & Prabha, 2005; Hwang, Myers, & Takeuchi, 2000).

This study examines how acculturation-related processes affect family relations and depression among Chinese Americans. Acculturation is generally known as the process whereby immigrants acquire the behavior and attitudes of the host culture (Rogler, Cortes, Malgady, 1991). Acculturation research suffers from a number of methodological and measurement limitations (Escobar & Vega, 2000). For example, there is no uniform conceptualization, operationalization, or method of measuring acculturation. Moreover, acculturation has been assessed in a multitude of ways, including linguistically, demographically (e.g., country of origin, place of birth, and years in the U.S.), socioculturally (e.g., values, attitudes, beliefs, behaviors, social relations, and individualistic and collectivistic orientation) and psychologically (e.g., personality, identity, and ethnic identity) (Berry, 2003; Bornstein & Cote, 2006).

Conceptually, acculturation involves the acquisition of the dominant group's cultural beliefs (mainstream acculturation), behaviors and values and the relinquishment or retention of one's culture of origin. This broader process has traditionally been termed acculturation, but actually involves two processes, mainstream acculturation and heritage enculturation, the latter of which is less frequently differentiated or studied. Rather than relinquish their culture, many immigrants choose to retain their heritage culture and language (enculturation), and hope to pass their heritage on to their children (Kim & Omizo, 2006). Because immigrant parents and children grow up in different cultural environments, an acculturation gap is likely to occur where parents and children possess different cultural values and may also be differentially fluent in mainstream and heritage languages. Specifically, parents and children may give up their heritage culture at different speeds and acquire the characteristics of the host culture at different rates.

Greater acculturation gaps (e.g., marked by a significant discrepancy between parents and children in adopting the cultural practices of the dominant culture) have been associated with increased intergenerational family conflict and decreased family cohesion and satisfaction in Asian Americans (Farver, Narang, & Bhadha, 2002; Gil & Vega, 1996; Kwak, 2003; Rosenthal, Ranieri, & Klimidis, 1996; Sluzki, 1979; Ying, 1999). Unfortunately, little research has examined how the heritage enculturation gap affects immigrant families. Nevertheless, there is a well-documented relationship between high levels of intergenerational family dysfunction and poor mental health among immigrant groups (Dinh & Nguyen, 2006; Greenberger & Chen, 1996; Lee & Liu, 2001; Lee, Su, & Yoshida, 2005; Su, Lee, & Vang, 2005; Szapocznik & Kurtines, 1993; Vega, Khoury, Zimmerman, & Warheit, 1995). Few

studies, however, have integrated these two bodies of research to examine how acculturation gaps impact family functioning and resultant psychological dysfunction.

A few recent studies have examined the relationship between the acculturation gap, family conflict, and youth depression and other mental health outcomes. However, they do not clearly distinguish between acculturation and enculturation gaps. In a small sample split across the U.S. and Canada, Crane and colleagues (2005) found that both the parent-child acculturation gap (obtained by subtracting averaged parental acculturation scores from adolescent acculturation scores) and poor family functioning were independently associated with depressive symptoms among North American Chinese adolescents. Costigan and Dokis (2006) recently found that when Chinese Canadian parents were more strongly oriented to Chinese culture and preferred to speak Chinese, lower levels of Chinese cultural and linguistic involvement by the children was associated with maladjustment. Child maladjustment was not associated with children's acculturation when parents did not adhere strongly to Chinese culture. When examining the relationship between intergenerational conflict and parenting style, youth distress, and acculturation gaps (as measured by creating a difference score between youths' and mothers' scores), Lim, Yeh, Liang, Lau, and McCabe (2009) found that acculturation gaps were not associated with psychological distress. When they recoded the difference scores into categorical mismatch scores (i.e., creating cut-off scores for acculturative mismatches), problematic acculturative mismatches (i.e., youth being more acculturated than their parents) continued to show a nonsignificant relationship, but benign mismatches (when parents were more acculturated than the youth—a seemingly atypical combination) were found to be significantly associated with distress. Although intergenerational family conflict and parenting styles evidenced a direct association with outcomes, no mediating relationship was found. Kim, Chen, Li, Huang, and Moon (2009) found that Chinese American adolescent perceptions of paternal parenting mediated the relationship between father-adolescent acculturation gap and adolescent depressive symptoms. However, the mediating relationship between mother-adolescent acculturation gap, maternal parenting and adolescent outcomes was not found to be significant. The acculturation gap, in this case, was measured by categorizing standardized acculturation scores into low, middle, and high tertiles, and then cross-classifying parent and child difference scores into low, medium, and high acculturative discrepancies. Unfortunately, no studies have examined how acculturation gap issues affect parental outcomes.

Because different methodologies and measurements of the acculturation gap were used in the above studies, findings were inconsistent and have precluded strong conclusions from this body of research. Refining different measurement approaches for assessing acculturation gap phenomena (Birman, 2006) and assessing their relationship with clinical outcomes such as depression are sorely needed. In addition, more work needs to be done to determine which acculturation gap phenomena are responsible for mental health difficulties so that more clearly specified targets for intervention and prevention can be developed. Although an acculturation gap may set the stage for problem development in the family, a person's level of acculturation and family acculturation gaps may not directly increase or decrease risk for mental health problems. The definition and measurement of acculturation may be too broad (e.g., languages, values, behaviors, identity, beliefs, ethnicity of social networks, and preferences for foods and music) and refined models that identify more proximal risk factors are needed (Hwang, 2006a).

For example, identifiable culture-related mechanisms such as increased acculturative stress, loss of culturally protective factors over time, difficulties in communication due to cultural differences, and conflicted beliefs and value systems might be more directly related to mental health outcomes than more distal and potentially non-problematic dimensions that are commonly assessed in acculturation measures (e.g., participating in religious holidays, eating

ethnic foods, listening to ethnic music, or associating with ethnic peer groups). Another limitation is that acculturation gap scores are commonly created by subtracting parent and child scores on such distal (non-problem related) acculturation assessments. Communication difficulties which may be influenced by differential language fluency, a major problem among family members who grow up in different cultural environments, are also not typically calculated into such acculturation gap scores (Hwang, 2006a). A more proximal approach may be to directly assess parent-child disagreements in beliefs and values, as well as perceived difficulties in communication with the other party. Because all immigrant families are likely to evidence some form of acculturation gap and not all immigrant families develop problems, directly assessing more proximal mechanisms of risk may help identify targets for clinical intervention.

Acculturative Family Distancing

Hwang (2006a) recently proposed an integrated theory of Acculturative Family Distancing (AFD). AFD is a more proximal conceptualization of parent-child acculturation-related challenges than general measures of the acculturation gap. AFD is defined as the distancing that occurs between parents and youth as a result of communication difficulties and cultural value incongruence. AFD is hypothesized to be exacerbated by parent-child differences in acculturation and enculturation (i.e., the acquisition of mainstream American cultural values and the retention of heritage cultural values). AFD is also affected by parent-child differences in linguistic fluency (i.e., heritage and mainstream language gaps) (Hwang, 2006a; Hwang & Wood, 2009). AFD and its core domains (communication difficulties and cultural value incongruence) are hypothesized to increase over time and lead to distancing between parents and youth, thereby increasing risk for family conflict. Family conflict, in turn, increases risk for depression and other psychological problems. The degree of struggle is expected to vary depending on the characteristics and circumstances of the family (e.g., age and generational status). For example, parents and youth who were both born outside of the U.S. might evidence fewer cultural differences than parents who were born outside the U.S. and youth were born in the U.S. Family conflict is postulated to increase risk for psychological difficulties such as depression for both youth and their parents (Lee, Choe, Kim, & Ngo, 2000; McGoldrick, Giordano, & Garcia-Preto, 2005; Chung, 2001). Unfortunately, there continues to be little research on how these variables affect parental mental health outcomes such as depression.

AFD is different from the acculturation-enculturation and linguistic gaps because the latter tend to be general non-problem related indices of acculturation gap phenomena; whereas, AFD is a specific and problem-focused construct. Specifically, acculturation gap scores (there continues to be little research on enculturation gaps) have traditionally been measured by assessing individual scores on categories such as participation in cultural activities and holidays, eating and listening to music of one culture or the other, and ethnicity of one's social network ((Berry, 2003; Bornstein & Cote, 2006; Suinn, Rickard-Figueroa, Lew, & Vigil, 1987). The scores of parents and children are then subtracted from each other to create an acculturation or enculturation gap difference score. The AFD cultural value incongruence domain assesses parent-child perceived agreement and disagreement on values and beliefs along areas that can lead to conflict (e.g., traditional gender roles, importance of academic success versus social life, weighting of individual versus family needs). The distinction between the acculturation-enculturation gap and AFD is important because the food that one eats or the music that one listens to, per se, are not likely to cause family conflict.

No established measures have been created to assess the language gap and little research has been done to examine how language gaps affect family conflict and mental health. This is important, since nearly all immigrant families evidence some type of language gap (i.e., children who grow up in the U.S. are often more fluent in English than their parents, who are

more fluent in their heritage language), but not all families develop problems (Hwang, 2006a). Language gaps are hypothesized to increase risk for communication difficulties, a core domain of AFD. There is some evidence to suggest that language gaps harm family communication (Liu, Benner, Lau, & Kim, 2009; Tseng & Fuligni, 2000; Weaver & Kim, 2008). Acculturation-enculturation gaps are a reflection of cultural affiliation and can also increase risk for communication difficulties because of cultural difference in expression and communication styles (e.g., direct versus indirect, verbal versus nonverbal) (Sue, 1990). This complex interrelationship is one of the reasons why cultural value incongruence and communication difficulties are important parts of the AFD construct.

The theory of AFD also postulates that parent-child distancing becomes particularly salient as children transition from adolescence into early adulthood (Hwang, 2006a). Clinical illustrations demonstrating how both dimensions of AFD affect immigrant families have been documented (Hwang, 2006a), and a 46-item measure of AFD has been developed (Hwang & Wood, 2009). A previous study examining the effects of AFD processes on Asian American and Latino college students indicated that higher levels of AFD were associated with higher psychological distress and greater risk for clinical depression. Rates of clinical depression for Asian American and Latino students were 12.7% and 14.0%, respectively. Family conflict mediated this relation, and supported the hypothesized linkages (Hwang & Wood, 2009). Unfortunately, parental outcomes were not assessed in this study and the influence of acculturation-enculturation and linguistic gaps were not controlled for.

The aims of the present study are to (a) refine the AFD measure using item response analyses, (b) assess the construct validity of the refined AFD measure in a high-school sample, (c) test the theory-based conceptual model of AFD's influence on family conflict and depression, and (d) assess the association of other relevant variables with AFD (i.e., the acculturation-enculturation gap, mainstream and heritage language gap, age, and place of birth). This study utilizes two informants of the target variables, mother and youth reports. A set of models were compared using structural equation modeling to assess construct validity, the relative fit of differing directions of influence among the constructs, and mediational effects. Based on previous psychometric research with the AFD instrument, it was predicted that the AFD measure used in this study would exhibit adequate construct validity (Hwang & Wood, 2009). Also consistent with AFD theory and previous research, it was hypothesized that AFD would serve as a predictor of youth and maternal depression via family conflict, even after controlling for more distal cultural influences that have not been previously tested (e.g., mainstream acculturation-heritage enculturation and linguistic gaps and generational status). Because previous acculturation gap research has not separated out mainstream acculturation versus heritage enculturation, nor mainstream and heritage linguistic gaps, no a priori hypotheses on how these variables would differentially effect outcomes of interest were proposed. However, based on AFD theory, it was hypothesized that larger gaps would increase risk for AFD and that U.S. born adolescents would evidence higher risk for AFD than foreign-born adolescents given the potential for larger cultural differences between parents and youth.

Method

Participants and Procedures

Two-hundred and forty-one Chinese American families responded to fliers at a high school inviting families to participate in a study regarding Chinese American family health. The school is located in the Western United States and is predominantly Chinese American. Chinese Americans comprise approximately half of the student body, with the next 3 largest groups being non-Hispanic White (21%), Hispanic/Latino (10%), and Korean American (5%). Students were offered two movie tickets for their participation and parents received \$10 each. Families that requested additional information were sent consent forms and a survey packet in

their language of preference (i.e., English, Traditional Chinese, or Simplified Chinese). To ensure confidentiality, each family member was provided with his/her own stamped envelope to return the survey. Families were told that in order for families to participate, their child and at least one parent had to fill out the questionnaires. One-hundred and twenty-one (50%) Chinese American families completed the survey and returned it in the mail. Only 70% of fathers completed the surveys, whereas 93% of mothers and 100% of youth completed the surveys. Mother and youth data were used in the analyses to prevent a substantial loss in sample size. Within this subsample, 94% of the mothers were foreign-born. In order to limit our findings to immigrant families, U.S. born mothers were excluded from the analyses, resulting in a final sample size of 105.

The youth sample consisted of 53% females and 47% males spread across different grade levels (freshmen = 29%, sophomores = 18%, juniors = 28%, seniors = 26%) and ages (age 14 years = 27%, 15 = 16%, 16 = 30%, 17 = 25%, 18 = 3%). Additionally, 91% of the students completed the surveys in English and 49% of the mothers completed the surveys in Chinese. Fifty-one percent of the students were U.S. born and the mean length of time in the U.S. for foreign-born students was 7.04 years ($SD = 3.93$, range = 0 to 16 years). Mothers were born in a variety of countries, including Taiwan (38%), mainland China (32%), Hong Kong (12%), Vietnam (5%), Burma (4%), Thailand (2%), and the remainder from other places.

Measures

Questionnaires were translated and back-translated by several bilingual Chinese-English speakers from various Chinese speaking areas (e.g., Hong Kong, Mainland China, and Taiwan) and were then reviewed by community members and the principal investigator for linguistic comprehensibility. Chinese languages (e.g., Cantonese, Mandarin) are written using the same character-based writing system. However, different regions (e.g., Hong Kong, mainland China, and Taiwan) may use either traditional or simplified versions of written Chinese (Chinese characters have been simplified over time and some regions retain use of more traditional writing). Mothers and youth completed all of the measures in either Chinese or English.

Acculturative Family Distancing (AFD)—The original AFD scale was a 46-item self-report measure assessing the two dimensions of AFD, communication difficulties and incongruent cultural values (Hwang, 2006b; Hwang & Wood, 2009). The two primary dimensions were theoretically derived by the first author based on his clinical experiences with immigrant families and a review of the acculturation literature. AFD items were developed by the first author and later refined through focus groups conducted with a multicultural team of 10 undergraduate and graduate students. Changes were made to the wording of questions to facilitate clarity and several items were dropped or added to the scale to improve face validity of the construct. A previous study on a preliminary version of the AFD measure indicated that both dimensions evidenced good internal consistency (α 's = .90 and .94) and concurrent validity, as evidenced by moderate to large linkages with family conflict and subjective distress in a sample of 186 Asian American and Latino college students (see Hwang & Wood, 2009).

In this study, the psychometric properties of the AFD rating instrument were examined and the measure refined with the aid of Rasch modeling. Analyses were conducted to define the ideal dimensionality, identify the ideal rating response structure, and reduce items to only those that uniquely and best estimated a person's AFD level. A Rasch model is a model-based measurement system that estimates latent trait levels from the responses a person provides to a set of items and the item difficulty levels of those items (Embretson & Reise, 2000). Rasch modeling was chosen over other item response models because the item difficulty levels estimated by these models are more meaningful (Wilson, 2005) and they permit examination of the rating scale structure (Andrich, 1996). The Rasch Rating Scale Model (RSM; Andrich,

1978) within the framework of the Multidimensional Random Coefficient Multinomial Logit Model (MRCMLM; Adam, Wilson, & Wang, 1997) was employed. Conquest 2.0 software was used for all Rasch analyses (Wu, Adams, Wilson, & Haldane, 2007). Adjustments were first made to the dimensional structure of the AFD instrument. More detailed information of the analyses can be found in Fujimoto, Hwang, and Wood (2010).

Review of the AFD items indicated that there was the potential for a four-dimensional structure (two Communication subscales and two Values subscales), and Rasch analysis confirmed that four dimensions fit the data better than two dimensions ($X^2_{\text{diff}}[17] = 1688.47, p < .001$). Under the new structure, the Communication dimension was refined into two subscales, Effective Communication (EC; Rasch Reliability $R = .88$), which consisted of 7 items (e.g., I can communicate effectively with my parents; I talk with my parents a lot), and Communication Barriers (CB; $R = .85$), which consisted of 5 items (e.g., I feel like there is a communication barrier between me and my parents; Although I can get my basic points across, it is hard for me to talk about things in greater depth with my parents). The Values dimension was refined into two subscales, Values Agreement (VA; $R = .86$), which consisted of 10 items (e.g., My parents and I share the same values; My parents and I agree on the relative importance between academic vs. social life), and Values Disagreement (VD; $R = .75$), which consisted of 7 items (e.g., My parents and I disagree on the importance of having a social life; My parents and I disagree on the roles that men and women should have). Items that were misfitting (i.e., not homologous with the other items in the dimension) or overfitting (i.e., redundant with other items in a dimension) were removed. The reduction of items proceeded in an iterative fashion; one item was removed at a time (items with ZInfit values greater than 2.0 were considered misfitting, and items with values less than -2.0 were considered overfitting; Wolfe & Smith, 2007). Then the Rasch model was refit. Tests of convergent and discriminant validity are presented in the Results section. The parent version was modified such that the word “parents” was replaced with “child,” with concordant changes in verb conjugation.

Next, the rating category structure was modified. Items were originally rated on a 7-point Likert-like scale ranging from “strongly disagree” to “strongly agree” for all items across the four domains. Since EC and VA are positively phrased and CB and VD are negatively phrased, we reverse scored the responses to the items for EC and VA so that higher scores represent more AFD problems in all four domains (i.e. greater communication difficulties and incongruence in values). The Rasch analysis revealed that the category thresholds did not increase monotonically with the categories, suggesting that the respondents were not clearly distinguishing all seven categories and the middle category was being used in an inconsistent manner. The analysis suggested that the scale be rescored to represent four categories that were distinctly defined to represent ordered segments of the latent trait scale. Using Wright & Linacre’s (1992) guidelines for rescoring, the Rasch model was refit on the rescored data and produced thresholds that were now increasing monotonically. The rescored categories one through four represented “Disagree,” “Slightly Disagree,” “Slightly agree,” and “Agree,” with reverse scoring implemented for EC and VA. The Rasch-estimated AFD measures were initially centered on 0.0 with a range from $-\infty$ to $+\infty$, which is a true continuous interval on the logarithm of the odds scale allowing for direct comparisons of the values to be made between youths and mothers within a domain. The centering on 0.0 was done for model identification purpose, a common approach in item response modeling. To increase generalizability of the measure to the entire family (youth, mothers, and fathers), Rasch analysis and centering was conducted using data from all respondents (i.e., including fathers). Because the structural equation model for this paper was only conducted for mothers and youth, the centered means fluctuate but do not equal exactly 0.0 (see Table 1 for *Ms* and *SDs* of the AFD domain scores for youths and mothers).

To interpret these means, one can compare them to the threshold locations for an average item difficulty level within a dimension. Thresholds distinguish two adjacent categories. The first threshold separates category one from two; the second, category two from three; and so forth. If a group's mean is less than the first threshold, then the group is, on average, in category 1; if the mean falls between the first and second threshold, then the group is, on average, in category two; and so forth. The first, second, and third threshold estimates for an average item in the CB dimension are -2.77 , 0.67 , and 4.44 , respectively. On average, youths ($M = 0.37$, $SD = 1.96$) and mothers ($M = -0.10$, $SD = 2.42$) are equivalent to category two (slightly disagree), with youth reporting slightly higher communication problems than mothers. The threshold estimates for an average item in the EC dimension are 0.36 , 2.70 , and 5.88 , respectively. Thus, on average, youths ($M = 0.52$, $SD = 2.22$) are equivalent to category two (slightly agree) and mothers ($M = -0.56$, $SD = 2.58$) are equivalent to category 1 (agree), suggesting that they are both on the agreement side of the spectrum that there is effective communication (since EC was reverse scored). For the remaining two dimensions, the first through third thresholds are: (VA) 0.43 , 1.83 , and 4.76 , and (VD) -1.77 , 0.24 , and 2.64 . Youth reported slightly greater AFD problems on all 4 dimensions.

Depression—The HDI is a 23-item self-report inventory version of the Hamilton Depression Rating Scale (HDRS), one of the most common measures of depression (Hamilton, 1960; Hamilton, 1967). There is strong support for the reliability and validity of the self-report HDI in assessing the severity of depression in multiethnic samples (Reynolds & Kobak, 1995; Dozois, 2003). The HDI evidenced good internal consistency ($\alpha = .93$), test-retest reliability ($r = .95$), and validity (content, criterion, and convergent) in its development study (Reynolds & Kobak, 1995; Dozois, 2003). The HDI uses clinical cutoff scores for depression over the past 2 weeks. A clinical cutoff score of 19 maximizes the hit rate (98.2%), sensitivity (99.3%), and specificity (95.9%) in differentiating between nonreferred community adults and psychiatric outpatients diagnosed with major depression (Reynolds & Kobak, 1995). The HDI evidenced good internal consistency in this study ($\alpha = .90$) and the proportions of youth and mothers surpassing the HDI threshold score for clinical depression were 15.3% (male=13.5%; female=16.9%) and 4.5%, respectively.

Family conflict—The 36-item Social Interactions Scale (SIS) assesses positive and negative social interactions (family, friend, and spouse) using a 4-point Likert scale ranging from “none at all” to “a lot” (Kessler et al., 1994). The 6 items of the family conflict scale focus on how family members argue, criticize, let each other down, and get on each other's nerves. The cross-cultural validity and reliability for the SIS among Chinese Americans has been previously confirmed (Hwang et al., 2000). Only the family conflict scale was used in this study ($\alpha = .87$) and higher scores represent higher conflict.

Language fluency gap—English and heritage language fluency were assessed by two items asking the participant how well they speak English and their ethnic or heritage language. Responses ranged from “poor” to “excellent” along a 5-point scale. A parent-child English gap score was created by subtracting parent scores from youth scores such that higher scores represented a larger English gap. A parent-child heritage language gap score was created by subtracting youth scores from parent scores, such that higher scores represented a greater gap.

Mainstream acculturation and heritage enculturation gap—The Vancouver Index of Acculturation (VIA) is a bidimensional measure of acculturation (Ryder, Alden, & Paulhus, 2000). This 20-item measure provides two subscale scores for each participant, degree of affiliation with their heritage culture and with the mainstream culture. Items in the VIA assess ethnic and mainstream behavior, participation, enjoyment, and social affiliation. Responses are answered on a 9-point Likert scale ranging from ‘strongly disagree’ to ‘strongly agree.’

This scale has been found to have strong internal consistency for the heritage ($\alpha = .79-.92$) and mainstream ($\alpha = .75-.89$) dimensions, as well as strong concurrent validity with proxies of acculturation, including percentage of time residing in a Western country, percentage of time educated in the West, generational status, plans to remain in the West (versus return to home country), English as a first language (versus second language), and self-rated Western identification. Moreover, the measure also demonstrated good concurrent validity with scores on the Suinn-Lew Asian Self-Identity Acculturation Scale (Suinn et al., 1987), a unidimensional measure of acculturation. Coefficient alphas for affiliation to heritage and mainstream culture in this study were .90 and .93, respectively. In this study, the two dimensions of acculturation are differentiated and termed mainstream acculturation and heritage enculturation (Kim & Omizo, 2006). Parent-child mainstream acculturation gap scores were created by subtracting parent scores from youth scores, such that higher scores indicate greater acculturative difference. Parent-child heritage enculturation scores were created by subtracting youth scores from parent scores, such that higher scores are indicative of greater enculturative difference.

Place of birth and age—Participants reported their age and place of birth (0=U.S. born and 1=foreign born).

Data Analysis

Structural equation modeling (SEM) with EQS 6.1 (Bentler, 2008) was used to test the primary study hypotheses; follow-up analyses on dichotomous depression DVs were conducted in Mplus version 5.2 (Muthen & Muthen, 1998–2007). EQS was chosen for the primary continuous-variable SEM analyses due to the availability of the Jamshidian-Bentler expectation maximization missing data procedure (Jamshidian & Bentler, 1999), a maximum likelihood estimation approach for SEM models in which some data are missing, as well as availability of standard errors and fit indices robust to violations of distributional assumptions. However, for dichotomous analyses, EQS requires that measured variables are represented by their own latent variable, which was undesirable for this study because it added excessive free parameters to the model specification. Therefore, Mplus, which has no such requirements for its dichotomous variable models, was used for the dichotomous DV analysis; it features full information maximum likelihood imputation of missing data.

To address the first aim of the paper—construct validity of the AFD measure—a series of nested SEM measurement models were compared using confirmatory factor analysis to determine the best fitting structure of the youth- and mother-report AFD data, drawing on an SEM-based approach to multitrait, multimethod matrix (MTMM) evaluation of discriminant and convergent validity (Byrne, 2006). Then, a correlation matrix-based MTMM approach was used to test the discriminant validity among AFD and a second family-level interaction construct: family conflict. Finally, intraclass correlations were computed to assess the degree of mother-youth agreement on the AFD subscales. To address the study's second aim, an SEM model was fit using latent variables for AFD problems predicting youth and maternal depression via an intervening variable, family conflict. This model controls for potential confounds such as generational status, level of development (age), acculturation-enculturation gaps, and linguistic gaps. To assess mediation, path coefficients in this model were compared to those in a model in which the mediator was removed. Furthermore, to evaluate the plausibility of the directionality of effects implied in the mediational model, an alternative nested model was also examined in which youth and maternal AFD were the DVs in the model, predicted by depression and family conflict. Chi-square difference tests were used to evaluate comparative model fit. An alternate version of the primary SEM model using dichotomous depression outcomes in which youth and mothers were categorized as scoring over or under the HDI clinical cut-score was subsequently fit using Mplus. The fourth and final aim of the

study was evaluated within the primary SEM model by assessing the path coefficients of generational status, level of development (age), and the acculturation/enculturation and linguistic gaps on the AFD latent variables.

Results

Table 1 presents the means, standard deviations, ranges, and values of skewness and kurtosis for all variables used for hypothesis testing. An intercorrelation matrix was prepared including all study variables used for hypothesis testing (see Table 2). There were nine participants with at least one variable missing (these participants each had 1–4 variables missing; only two participants had as many as 4 missing variables).

Prior to analyzing data, we tested the assumption that all variables were normally distributed. Variables were standardized and the z -score distributions were plotted. All had z scores below absolute values of 3.5, suggesting no extreme outliers. Examination of the raw score plots and frequencies suggested approximately normal distributions, with modest skewness or kurtosis in 4 of 19 variables (mother and youth HDI scores; heritage gap; and youth age) although in no case exceeding the values of 2 and 7, respectively, suggested by West, Finch, and Curran (1995) as indicators of violations of distributional assumptions (see Table 1). Multivariate tests of distributional assumptions were also within acceptable limits. Robust maximum likelihood estimation, which generates fit indices and standard errors that are correct even when distributional assumptions are violated, was used to confirm model fit.

Convergent and Discriminant Validity of the AFD Measure

Drawing on an SEM-based MTMM approach to assessing convergent and discriminant validity (Byrne, 2006), a null model (in which all 4 youth-report and all 4 mother-report AFD subscales loaded on one latent factor) was compared to a trait-only model (one latent variable for the 4 youth and mother-report Communication subscales, and one for the 4 youth and mother-report Values subscales), a method-only model (one latent variable for the 4 youth-report subscales, and one for the 4 mother-report subscales), and a method-and-trait model (two latent variables corresponding to the Communication and Values domains, and two corresponding to the mother- and youth-report method variance). Each model fit the data better than the last, such that the method-and-trait model ($X^2 [10] = 12.18, p = .27$) > the method-only model ($X^2 [19] = 39.24, p < .01$) > the trait-only model ($X^2 [19] = 269.22, p < .00001$) > null model ($X^2 [20] = 220.22, p < .00001$). The superior fit of the method-and-trait model as compared to the method-only model ($X^2_{\text{diff}} [9] = 27.06, p < .01$) suggests that the AFD trait scores are influenced by a common perception shared among youth and mothers, and not just method variance, supporting convergent validity. In the method-only model, the correlation between the mother- and youth-report latent variables was statistically significant and of moderate to large magnitude ($r = .48, p < .01$), offering additional support for the convergent validity of the measure. The method-and-trait model was also compared to a similar model with factors for both methods but only one (unidimensional) AFD trait that did not distinguish between communication and values. The model distinguishing between these two dimensions led to better model fit ($X^2_{\text{diff}} [2] = 18.79, p < .001$), offering evidence of the discriminant validity of the subscales produced by the Rasch analysis (see Method section). The fit indices (CFI, RMSEA) for the method-and-trait model were .997 and .045, and for the method-only model were .969 and .10. For hypothesis testing in the structural model (addressing study aims 2 and 3), the method-only measurement model was adopted. The method-only model was used because, in the structural model, the total number of estimated parameters relative to the N of 105 was high, given the number of control variables and free paths. By adopting the method-only model, the number of total parameters estimated was reduced while still maintaining a representation of AFD with an excellent CFI. Modeled this way, the AFD factors represent the

common variance shared among the four subscales, presumably representing the underlying AFD trait that manifests in a variety of specific ways.

Convergent and discriminant validity were further examined at the level of the correlation matrix (see Table 2) using an MTMM perspective, with a focus on the AFD subscales and the family conflict subscales (each rated by mothers and youth). There were moderate correlations among the two informants on corresponding AFD subscales, offering evidence of convergent validity, while cross-informant correlations between AFD and family conflict were weak and nonsignificant, providing evidence of discriminant validity. To further assess youth-mother agreement on the specific subscales, intraclass correlation coefficients (ICC, two-way random average measures, consistency) were computed for the four AFD subscales: EC (.61, $p < .0001$), CB (.39, $p < .01$), VA (.55, $p < .0001$), VD (.56, $p < .0001$). These ICCs reflect moderate mother-child agreement. Mother-child agreement is accounted for in the structural models below by freeing the correlation between mother and child AFD latent variable scores. Finally, the association between the measures of the acculturation gap and the AFD subscales was examined, showing that these measures were well-discriminated from one another, while sharing some common variance (see Table 2). In sum, there was support for the construct validity of the refined AFD measure.

Comparative Structural Models

To address the second study aim and its corresponding hypothesis, Figure 1 presents the estimated structural model for youth and mother depressive symptoms (using standardized path coefficients). In addition to the predicted paths, all variances of measured variables and factors were allowed to vary freely. In order to control for the seven covariates (youth's place of birth, youth's age, mother's age, English language gap score, heritage language gap score, mainstream acculturation gap score, and heritage enculturation gap score), these variables were set as predictors of the AFD, family conflict, and depression variables and also allowed to intercorrelate freely among themselves in the specified model. For the sake of clarity, only significant paths linking these covariates with the other variables are depicted in Figure 1. The model fit the data well, $X^2(100, N = 105) = 130.31, p = .02$; comparative fit index (CFI) = .964; and root mean-square error of approximation (RMSEA) = .052 (90% CI = .017–.076). When robust fit indices were used, comparable parameters were obtained: Yuan-Bentler scaled $X^2(100, N = 105) = 118.61, p = .09$; robust CFI = .973; and robust RMSEA = .041 (90% CI = .00 – .068).

In the SEM model (Figure 1), even after controlling for the seven covariates, more youth-reported AFD was associated with greater youth-reported family conflict. In turn, higher levels of both youth-reported and mother-reported family conflict predicted more youth depressive symptoms. In contrast, neither AFD factor was associated with mother-reported family conflict; instead, mother-reported AFD had a significant direct association with maternal depressive symptoms. Indirect effects of the hypothesized paths were also examined (not depicted in Figure 1). The heritage enculturation gap had an indirect effect on youth-reported family conflict via the AFD latent variables (Sobel test: $t = 3.30, p < .01$), such that a larger gap was associated with more conflict. The youth AFD factor had an indirect effect on youth-reported depression via family conflict, with more AFD problems predicting more depressive symptoms ($t = 2.56, p < .05$).

Mediation—To test for mediation, a model was fit omitting the family conflict variables. Model fit was relatively good ($X^2[87] = 123.39, p < .01$; CFI = .952; RMSEA = .062). The direct paths from mother-reported AFD to maternal depressive symptoms, and from youth-reported AFD to youth depressive symptoms were .25 and .41 ($ps < .05$), respectively. The comparable path coefficients in the model that included family conflict as a mediator (in Figure

1) were .27 ($p < .05$) and .23 (ns), respectively. The reduction of the direct path from youth-reported AFD to youth depression to a nonsignificant effect in the mediated model is consistent with partial mediation. This conclusion is supported by the significant indirect effect from youth-reported AFD to youth depressive symptoms via family conflict, reported above. In contrast, there was no evidence of a mediated effect from AFD to maternal depression.

Alternative ordering of variables in the model—A model nested within the primary SEM model presented in Figure 1 was evaluated, in which youth and mother depression and family conflict variables were predictors of the two AFD latent variables, which were intercorrelated. The same seven covariates were retained in the model, predicting all other variables. Model fit was borderline ($X^2 [128] = 198.14, p < .0001$; CFI = .912, RMSEA = .071), and the chi-square difference test indicated that the representation of the covariance structure modeled in Figure 1 was a better fit to the data ($X^2_{diff} [28] = 67.83, p < .001$). Therefore, the model in which AFD predicted family conflict, which predicted depression, was retained as the better fitting model.

Exploratory Categorical Analyses

As noted in the Method section, 15.3% of youth and 4.5% of the mothers scored above the HDI threshold score for clinical depression. Variability in this DV is limited, thus rendering analyses with a relatively modest sample size exploratory in scope. An SEM model was fit using clinical depression as the DV (0 = not depressed, 1 = depressed), drawing from the results of the results of the primary SEM model depicted in Figure 1. To reduce the number of variables and free parameters in the model, given the limited variability in the DV, the 5 covariates that had no significant path coefficients in the primary model were dropped, and the 2 other covariates were restricted to freely predict only the variables for which significant path coefficients had emerged in the primary model (heritage enculturation to the AFD latent variables; and youth age to youth-reported conflict). Model fit was good ($X^2 [20] = 25.21, p = .19$; CFI = .950, RMSEA = .050). All significant path coefficients obtained in the primary SEM model (Figure 1) were also found significant in the dichotomous model. There was also a significant indirect effect from youth-reported AFD to clinical depression via the family conflict variables (Sobel test: $t = 2.57, p < .05$); the indirect effect for mother's depression was nonsignificant. Hence, AFD and family conflict are likely relevant to the prediction of clinical depression in Asian American youth and their mothers.

Predictors of AFD

The seven covariates included in the primary SEM analyses were putative predictors of AFD. Of these variables, only the heritage enculturation gap was a significant predictor of the mother- and youth-reported AFD latent variables (see Figure 1). For both mothers and youth, a greater heritage enculturation gap among mothers and children was associated with more AFD-related problems. In the model, generational status, the language gap scores, the acculturation gap, and youth and maternal age were not significant simultaneous predictors of AFD.

Discussion

In this study, the theory and construct of AFD (Hwang, 2006a) was tested in a sample of high school youth and mothers. AFD increased risk for youth depression, partially mediated by family conflict. This study expands upon earlier research (Hwang & Wood, 2009) by testing the AFD model on a specific Asian American group (i.e., Chinese Americans); focusing on youth still living at home with their parents, for whom the effects of AFD would be experienced more regularly than for college students living away from home (cf. Hwang & Wood); utilizing two informants (mother and youth) rather than exclusively youth self-report; refining AFD measurement through Rasch modeling; using an MTMM approach to assess convergent and

discriminant validity; evaluating the influences of mainstream acculturation and heritage enculturation gap, heritage and mainstream linguistic gap, age, and place of birth on AFD as well as the other variables in the models; and testing the model on both youth and mother outcomes.

Rasch analysis resulted in a refined AFD instrument with a reconfigured response category scheme and a more accurate dimensional structure. The measure was reduced from 46 items to 29 items, and the item-response categories were reduced from a 7-point scale to a 4-point scale because respondents were not clearly distinguishing between all seven response categories and the middle category was not being used in a consistent manner. A four-dimensional structure comprised of two subdimensions for each of the AFD domains was identified and found to best fit the data and the AFD construct (i.e., Communication – Effective Communication and Communication Barrier; Values – Values Agreement and Values Disagreement). A multitrait, multimethod matrix approach was taken to analyzing convergent and discriminant validity. The observed pattern of correlations and comparative SEM models was supportive of moderate convergence among different informants on AFD, as well as clear discrimination between AFD and family conflict, and between the communication and values dimensions, meeting classical criteria for construct validity within the MTMM context. Notably, youth-mother agreement on AFD was much stronger than youth-mother agreement on family conflict (measured by a well-validated, commonly used scale), a finding underscoring the potential sensitivity of the AFD instrument. Moreover, AFD and the acculturation/enculturation gap shared some common variance, but were well-discriminated. All told, there was considerable support for the construct validity of the refined AFD measure.

With regard to predictors of AFD, results indicated that larger mother-youth heritage enculturation gaps were associated with greater mother- and youth-reported AFD problems. This suggests that the difference in enculturation level between mothers who retain their culture of origin and youth who either never acquired or lost part of their heritage culture over time puts families at risk for developing AFD and subsequent family problems. The retention of heritage culture may serve as a culturally protective factor and help improve family relations and youth mental health. The heritage enculturation gap also had an indirect effect on family conflict for youth, suggesting that the enculturation gap may increase AFD-related difficulties in families and trigger family conflict. The enculturation gap has previously been found to affect child maladjustment in one study on Chinese Americans (Costigan & Dokis, 2006). It is possible that the lack of association between the mainstream acculturation gap and family or individual adjustment problems in this study, and the greater importance of the heritage enculturation gap, may be due to traditional acculturation measures being more sensitive in detecting differences in enculturation gaps than acculturation gaps. However, it may also be that youth are more likely to accept that their parents are unlikely to fully acculturate; whereas, parents are less accepting that their children do not acquire and retain their heritage culture, a commonly noted point of disagreement (Kim & Omizo, 2006). The notion that enculturation gaps are more influential than acculturation gaps has also been reported in one study of Latino family process (Smokowski, Rose, & Bacallao., 2008) and one study on Muslim American student depression (Asvat & Malcarne, 2008). Future research should focus on further understanding what types of acculturation-enculturation gaps are responsible for family dysfunction and AFD. For example, Asvat & Malcarne (2008) found that regardless of enculturation level, it was personal and family mismatch in enculturation that was associated with depressive symptoms.

It was surprising to find that both mainstream and heritage language gaps did little to influence the overall model. This finding runs contrary to the expectation that differential language fluencies harm mother-youth communication (Liu et al., 2009; Tseng & Fuligni, 2000; Weaver & Kim, 2008). It may be that the language gap measure, which consisted of mother and youth

single-item self-reports of their own language fluency, was insufficient in measuring this complex phenomenon. Since few multi-item language fluency measures have been developed to facilitate psychological research, research should focus on developing more suitable instruments. For example, separate subscores could be developed for speaking, reading, and writing. An oral assessment measure that assesses not only self-reported fluency, but also ability to get one's point across effectively, comfort in expressing oneself, listening comprehension, and ability to discuss feelings as well as concrete needs may also be beneficial.

This study builds on AFD research by examining both mother and youth reports of AFD, family conflict, and depression as a symptomatic and diagnostic outcome. Despite the relatively small sample size, both outcome models (i.e., continuous and categorical representations of depression) yielded comparable results. Overall, greater youth and mother reports of AFD were associated with higher depressive symptoms and risk for clinical depression. These findings remained robust even after controlling for more general acculturation-gap phenomena (i.e., mainstream acculturation and heritage enculturation gaps and linguistic gaps). Family conflict partially mediated this relation for youth depression. The inclusion of mothers makes a unique contribution because most studies of the acculturation gap have focused on youth outcomes. It is unclear why mother reports of family conflict did not mediate the relation between mother-reported AFD and maternal depression as it did for youth. Instead, mothers' reports of AFD directly increased risk for mothers' depression. It may be that mothers underreported their distress level and family problems, perhaps due to stigma about talking about family problems and mental illness evident in Chinese culture (Hwang et al., 2000). This is supported by trends found in the data. Specifically, mothers reported lower overall depressive symptoms, family conflict, AFD, and evidenced lower rates of clinical depression on the HDI than youth. However, depression is also typically higher in late adolescents and early adulthood (Hwang et al., 2005).

Another possibility is that mothers and youth have different attributions as to why they argue. Youth may perceive that AFD (not being able to communicate effectively and having incongruent cultural values) is a primary reason why they fight with their parents. Mothers may attribute conflict to other reasons (e.g., youth disobedience, lack of filial piety), and instead, perceive AFD as a reason why they are depressed (i.e., my children don't talk to me; my children have lost their cultural heritage), especially given the many sacrifices that immigrant parents make for their children. It is also possible that because the family conflict measure is a broader measure of family process than the AFD measure (i.e., it measures family conflict rather than mother-child conflict), parents may have reported differently than youth. For example, when youth think about family conflict they may think about conflict with their parents. However, when mothers think about family conflict, they may think about conflict with children as well as with their spouse. Similarly, on the AFD measure, youths respond about their parents, collectively, while parents respond about their relationship with a single target child in the family, raising the possibility that youth-reported AFD is more homologous with general family conflict than is mother-reported AFD. Future research should explore parent-child differences in perceptions and attributions to individual and family problems.

Understanding how emic (culture-specific) and etic (culture-universal) factors interplay and contribute to mental health problems (i.e., how etic phenomena such as family conflict can mediate the effects of emic phenomena such as AFD processes in increasing risk for psychopathology) is important because it helps us understand problem development across cultures and in immigrant cultures that are in transition. For example, even though some degree of family conflict may be normative in all cultures, culture-specific factors such as AFD may not affect Chinese families in Asia or European American families in the U.S. because they are not immigrants in transition. Results from this study also help integrate a disparate set of research on acculturation, family conflict, and mental health outcomes. Given the high

prevalence of family conflict in Asian American families (Greenberger & Chen, 1996; Lee & Liu, 2001; Lee & Yoshida, 2005) and high psychological distress evident in Asian American youth (Greenberger & Chen, 1996, Cheng et al., 1993; Abe & Zane, 1990; Okazaki, 1997), more research needs to be conducted in this arena. Intergenerational conflict and the cultural divide between generations (e.g., social isolation, loss of filial piety, expectations for taking care of aging parents) has been found to increase risk for depression and suicide among Asian American elderly (Diego, Yamamoto, Nguyen, & Hifumi, 1994), who also proportionally evidence the highest rate of suicide in the U.S. compared to all other groups (McKenzie, Serfaty, & Crawford, 2003).

This study utilized a novel approach to examine acculturative issues in psychosocial problem development for Chinese American families. However, there are a number of limitations that deserve attention and that moderate the conclusions that can be drawn from this study. First, data were cross-sectional. Longitudinal studies need to be conducted to assess issues of timing and sequencing, and the direction of effects. Future studies need to examine how AFD processes affect family relations over time and developmental periods (e.g., tracking families from primary school through later adulthood). Second, data were collected on a subsample of high school students at a single school. Findings may not generalize to other age groups, settings, or other students at the same school. Although it was informative to have mother reports of AFD and conflict, understanding AFD within the full family context (i.e., inclusion of father reports) would have also been useful; unfortunately, a sufficiently representative sample of father reports was not available in this study. Third, the participants in this study completed a 46-item version that was later reduced to a 29-item form. This leaves open the possibility that a different ordering of items may have affected results had the final version of the measure been used initially. Fourth, the method-only measurement model for AFD selected for the structural model had one fit index that suggested adequate fit and a second that was borderline. Kline (2005) has noted the need to consider not only model fit but also what makes sense in selecting final SEM models, and in this case, the relatively small difference in fit (compared to the method-and-trait model) plus the preference for parsimony in the structural model made the method-only model the most sensible option. The final structural models fit adequately with this representation of AFD. Fifth, a larger sample size would also allow for inclusion of more variables and complex modeling (e.g., tests of moderation). Since not all families with an acculturation gap develop difficulties, understanding other important intervening variables that increase or reduce risk (e.g., personality factors; the role of extended family) also should be explored.

Finally, data were collected via self-report methodology, which has both advantages and disadvantages. One advantage of self-reports is that participants may feel less embarrassed to talk about sensitive issues (which may be even more important for cultural groups that value privacy) and may be more likely to provide honest assessments of stigmatizing topics. On the other hand, face-to-face interviews may reduce confusion and provide participants the opportunity to ask questions and clarify responses, and direct observations can also overcome some forms of respondent bias. Relatedly, use of self-report measures introduces the possibility of method variance affecting the results. Although there were several cross-informant findings in the structural models (e.g., the link between mother-reported conflict and youth depression), many of the findings were intra-informant, which can be influenced by method variance. Self-reports can also be biased and different respondents may use of different frames of reference when answering questions, thus potentially influencing the accuracy of difference scores (e.g., mothers may use other immigrant mothers as a frame of reference when reporting their language fluency and youth may use English-fluent Americans). More research needs to be done on developing a more reliable and valid measure of linguistic fluency. Future studies should also evaluate the best methods for examining “gap” phenomena (e.g., acculturation-enculturation and heritage-mainstream language gaps). For example, are difference scores the

best method for accurately assessing parent-youth gaps; and, what is the relationship between component scores and difference scores?

The results of this study suggest that a theoretically-based conceptualization of a more proximally defined acculturation-gap phenomena (i.e., AFD—breakdowns in communication and disruptive discrepancies in cultural values) may provide clarification of the linkages between acculturation processes, family problems, and mental health outcomes. Although nearly all immigrant families evidence some form of acculturation gap, not all immigrant families develop problems. The broad and general definition of the acculturation gap may be insufficient in identifying distinct mechanisms of risk. This study's use of AFD rather than more distal proxies of the acculturation gap may help identify specific foci for intervention (see Hwang, 2006a, for clinical illustrations). For example, programs that target improving parent-youth communication difficulties may help decrease family conflict and subsequent parent and youth depression. The lack of a significant effect of linguistic gaps on the primary outcome variables indicates that such communication training might need to focus on more than improving language fluency. Communication difficulties can also be influenced by cultural differences in communication styles (e.g., the degree of directness versus indirectness, or verbal versus nonverbal body and facial language) which may also need to be addressed through psychoeducation (Sue, 1990). Results from this study also indicate that it may be particularly important for youth to learn more about their heritage culture and find ways of integrating it with their adoption of mainstream culture to avoid exacerbating AFD and indirectly magnifying family conflict. Although a few programs have been developed to improve immigrant family relations, one for Chinese Americans and one for Hispanic families (Szapocznik et al., 1984; Ying, 1999), more needs to be done to address proximal mechanisms of risk for depression and other mental health problems.

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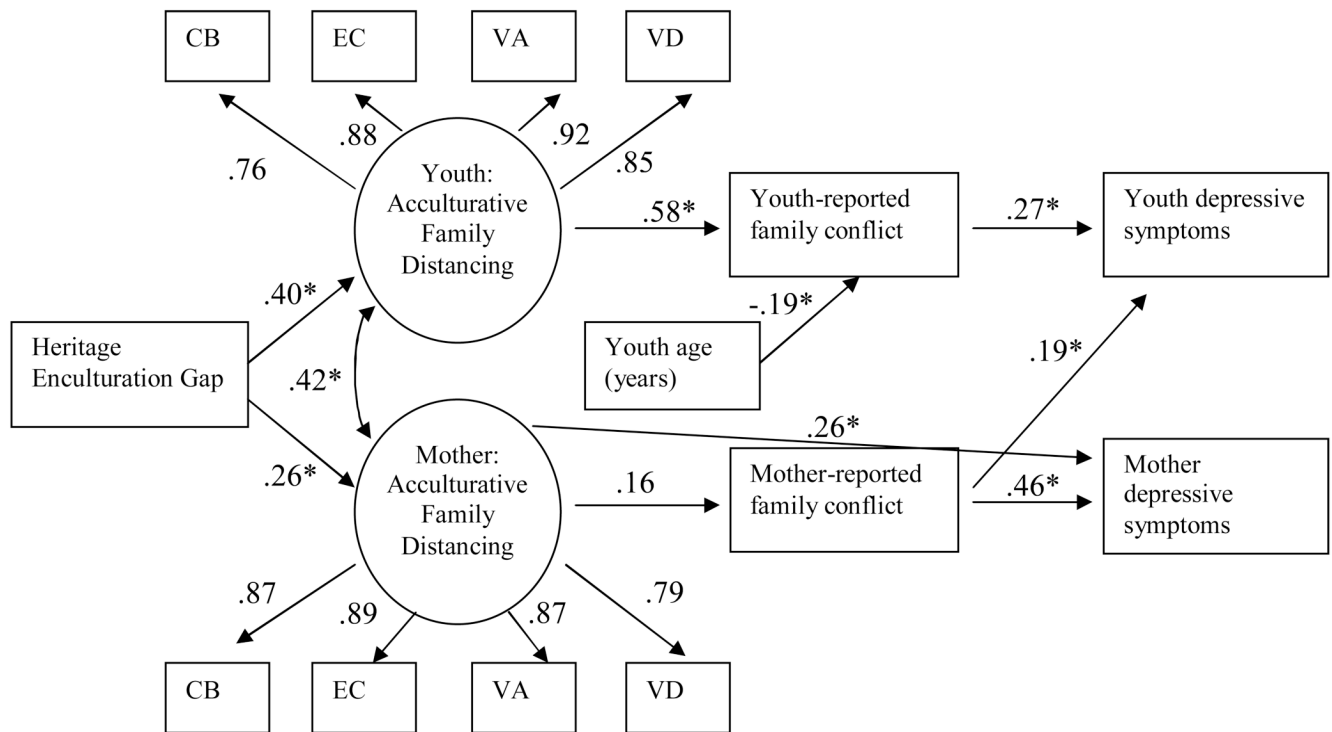


Figure 1.

Structural equation model for the Acculturative Family Distancing Model. All values are standardized path coefficients. Covariates in the model are: place of birth, youth age, mother age, English language gap score, heritage language gap score, mainstream acculturation gap score, and heritage enculturation gap score. Nonsignificant covariate paths are not depicted. The direct paths from youth AFD to youth depressive symptoms and from youth conflict to maternal depressive symptoms are nonsignificant and therefore not depicted. All latent variable loadings are statistically significant ($p < .05$). AFD subscales are: “EC” = Effective Communication; “CB” = Communication Barriers; “VA” = Value Agreement; “VD” = Value Disagreement. * $p < .05$. The AFD scales are all scaled in the same direction, such that higher scores reflect greater communication difficulties and incongruence in values.

Table 1
Descriptive Statistics for Continuous Variables Used in the Structural Equation Model

Variable	M	SD	Range	Skewness	Kurtosis
1. Youth age	15.61	1.21	14 – 18	-.044	-1.222
2. Mother age	47.32	4.67	36 – 60	.349	.081
3. English Language Gap	1.94	1.14	-1 – 4	-.281	-.481
4. Ethnic Language Gap	.93	1.34	-3 – 4	-.073	-.219
5. Heritage Accult. Gap	2.72	16.09	-31 – 61	.367	1.491
6. Mainstream Encult. Gap	15.25	19.65	-29 – 65	.284	-.079
7. AFD-Youth: EC	.52	2.22	-4.58 – 5.87	.204	.003
8. AFD-Youth: CB	.37	1.96	-3.89 – 4.84	.163	-.317
9. AFD-Youth: VA	.31	1.45	-3.10 – 4.15	.302	.261
10. AFD-Youth: VD	.15	.95	-2.26 – 2.52	-.062	-.097
11. AFD-Mother: EC	-.56	2.58	-5.31 – 6.97	.330	-.151
12. AFD-Mother: CB	-.10	2.42	-5.35 – 6.04	-.204	-.204
13. AFD-Mother: VA	-.33	1.63	-3.29 – 4.62	.102	-.487
14. AFD-Mother: VD	-.07	.99	-2.58 – 2.96	-.319	.320
15. Conflict-Youth	13.56	3.95	6 – 24	.341	-.153
16. Conflict-Mother	11.09	4.02	6 – 21	.621	-.332
17. HDI-Youth	10.41	8.81	.00 – 46.93	1.460	2.556
18. HDI-Mother	7.84	6.85	.00 – 37.90	1.628	3.862

Note. *n* ranges from 102 to 105.

“EC” = Effective Communication. “CB” = Communication Barriers. “VA” = Value Agreement. “VD” = Value Disagreement. “HDI” = Hamilton Depression Inventory. The AFD subscales are all scaled in the same direction, such that higher scores reflect greater communication difficulties and incongruence in values. Youth reported slightly higher AFD problems on all 4 dimensions.

Table 2

Intercorrelation Matrix for All Measured Variables in the Primary SEM Model

Variable	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. Youth age	.22	-.02	-.02	.07	.11	.08	.10	.16	.22	.17	.14	.12	.18	.10	-.07	.05	.16	-.01
2. Mother age	-	-.01	.07	.07	.03	.02	-.15	-.03	-.01	-.06	-.08	.02	-.08	-.02	-.03	-.07	-.01	-.04
3. Place of birth	-	-	-.04	-.26	.05	.01	.02	-.05	.14	-.06	.01	.07	.09	.05	.02	-.15	.03	-.09
4. English Lng. Gap	-	-	-	-.16	.02	.44	.05	-.07	.01	.03	.16	.24	.15	.21	-.02	-.03	-.06	.13
5. Ethnic Lng. Gap	-	-	-	-	.17	.11	.11	.19	.06	.16	.01	-.02	-.06	-.03	.05	.14	-.07	-.15
6. Heri. Accult. Gap	-	-	-	-	-	-.02	.37	.32	.39	.42	.21	.19	.29	.22	.19	.08	-.03	.09
7. Main. Encult. Gap	-	-	-	-	-	-	.02	.11	-.01	.05	.24	.28	.16	.22	.05	-.05	-.01	-.05
8. AFD-Youth: EC	-	-	-	-	-	-	-	.68	.83	.72	.44	.39	.42	.31	.39	.17	.25	.07
9. AFD-Youth: CB	-	-	-	-	-	-	-	-	.68	.69	.23	.25	.21	.14	.43	.05	.21	-.08
10. AFD-Youth: VA	-	-	-	-	-	-	-	-	-	.77	.37	.38	.38	.31	.48	.18	.32	.09
11. AFD-Youth: VD	-	-	-	-	-	-	-	-	-	-	.40	.39	.43	.39	.46	.09	.22	-.03
12. AFD-Mother: EC	-	-	-	-	-	-	-	-	-	-	-	.78	.81	.65	.14	.03	.05	.14
13. AFD-Mother: CB	-	-	-	-	-	-	-	-	-	-	-	-	.72	.75	.19	-.02	.02	.16
14. AFD-Mother: VA	-	-	-	-	-	-	-	-	-	-	-	-	-	.68	.19	.08	.13	.20
15. AFD-Mother: VD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.17	.10	.06	.38
16. Conflict-Youth	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.13	.35	-.02
17. Conflict-Mother	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.23	.44
18. HDI-Youth	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.14
19. HDI-Mother	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note. *n* ranges from 101 to 105. *rs* < -.19 and > .19* are *p* < .05, two-tailed.

"Lng." = language; "Heri." = heritage; "Main." = mainstream; "EC" = Effective Communication; "CB" = Communication Barriers; "VA" = Value Agreement; "VD" = Value Disagreement; "HDI" = Hamilton Depression Inventory. The AFD subscales are all scaled in the same direction, such that higher scores reflect greater communication difficulties and incongruence in values. Youth reported slightly higher AFD problems on all 4 dimensions.