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## Acculturative Parenting Cognitions: Bicultural Socialization Beliefs among Chinese American Parents

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**ACCULTURATIVE PARENTING COGNITIONS: BICULTURAL  
SOCIALIZATION BELIEFS AMONG CHINESE AMERICAN PARENTS**

A Dissertation Presented

By

ALBERT Y. H. LO

Submitted to the Graduate School of the  
University of Massachusetts Amherst in partial fulfillment  
of the requirements for the degree of

DOCTOR OF PHILOSOPHY

September 2022

Clinical Psychology

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SOCIALIZATION BELIEFS AMONG CHINESE AMERICAN PARENTS**

A Dissertation Presented

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## **ABSTRACT**

### **ACCULTURATIVE PARENTING COGNITIONS: BICULTURAL SOCIALIZATION BELIEFS AMONG CHINESE AMERICAN PARENTS**

SEPTEMBER 2022

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Chinese American and Chinese immigrant parents within the United States possess parenting cognitions that reflect their multidimensional cultural experiences. One such parenting cognition is parents' bicultural socialization beliefs, defined as their desire for their children to adopt both heritage Chinese values as well as destination American values in order to be successful in the United States. The aim of the current dissertation was to quantitatively examine bicultural socialization beliefs among Chinese American parents of adolescents and young adults. Four studies were conducted to model a pathway from parents' social and cultural experiences to outcomes in their children. Study 1 examined the demographic and immigration-related factors that predicted the development of bicultural socialization beliefs in parents. Study 2 examined the mediating effects of parents' parenting behaviors in the relation between parents' bicultural socialization beliefs and subsequent depressive symptoms in their children. Study 3 examined the nature and direction of the relation between parents' bicultural socialization beliefs and intergenerational/acculturative family conflict with their children over time. Finally, Study 4 examined potential moderating influences on the relation between parents' bicultural socialization beliefs and either child depressive symptoms or

parents' behaviors. Participants included mothers, fathers, and adolescents/young adults from a three-wave longitudinal study of Chinese American families (N=444; Director: Dr. Su Yeong Kim). Data were collected using self-report measures. Results from Study 1 indicated that mothers' bicultural socialization beliefs were positively predicted by their Chinese cultural orientation and negatively predicted by their length of time in the United States. In Study 2, parents' bicultural socialization beliefs positively predicted their reports of supportive and unsupportive parenting behaviors; however, there was no evidence to suggest parents' behaviors mediated the relation between parents' bicultural socialization beliefs and young adult depressive symptoms. Concerning Study 3, greater levels of intergenerational/acculturative family conflict during adolescence predicted higher levels of parents' bicultural socialization beliefs during young adulthood. Finally, results from Study 4 suggested mothers' bicultural socialization beliefs may be protective against adolescent depressive symptoms under contexts of high socioeconomic stress. Future areas of research and implications for practice are presented.



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## CHAPTER 1

### GENERAL INTRODUCTION AND OVERVIEW

There are over 40 million immigrant persons living in the United States, with the number set to increase substantially over the next fifty years (Budiman, 2020; Cohn, 2015). Although immigrants within the United States emigrate from a variety of countries, the increase in immigration is expected to be fueled by an influx of persons from Asian countries. In fact, the ongoing surge in immigration from Asian countries has made the Asian-identifying population, a diverse population in itself, the most rapidly growing racial group within the United States (Budiman & Ruiz, 2021a). Recent estimates by the Pew Research Center indicate that Asians and Asian Americans will become the United States' largest immigrant group by 2055, surpassing the number of immigrant persons from Hispanic countries (Budiman & Ruiz, 2021b).

The United States' rapidly growing immigrant population, combined with a socio-political backdrop in which immigrants are increasingly marginalized, calls for the need for continued research that may inform services for immigrant persons and their families. One essential avenue of research involves the experience of immigrant parents raising families in a new cultural context. The proposed dissertation aims to build upon this line of work through quantitatively examining a parenting cognition construct particularly relevant for immigrant parents and families: parent's bicultural socialization beliefs for their children.

#### **Parenting Cognitions of Immigrant Parents**

Parents' beliefs, goals, and other thought processes that inform their parental roles are collectively known as parenting cognitions (Bornstein & Cote, 2006). Examples of

constructs examined in the general parenting cognition literature include parents' knowledge about child development, parental self-efficacy, and parental attributions (e.g., Bornstein & Cote, 2006; Bornstein et al., 2018). Parenting cognitions unique to specific family structures and backgrounds have also been identified (e.g., acknowledgment of differences for adoptive parents: Lo & Cashen, 2020; Lo & Grotevant, 2020). Examinations of parenting cognitions demonstrate them having important implications for parenting behaviors, which then have subsequent implications for child outcomes (Bornstein et al., 2018). In addition, processes described in the parenting cognitions literature are informed by the parents' cultural contexts. For example, parents are exposed to existing beliefs about parenting within that culture through multiple cultural avenues, and they may learn about their role as parents through interactions with other members of the culture (e.g., other parents), in and outside of their families (Bornstein & Lansford, 2010).

Parents who immigrate to a new cultural context experience the process of acculturation, which involves changes in their thoughts, behaviors, and sense of self in response to exposure to one or more new cultures (Bornstein & Cote, 2010; Cheah et al., 2013; Schwartz et al., 2010). As such, when immigrant parents acculturate to new cultural contexts, they become exposed to, and may become influenced by, the parenting beliefs and practices of the new culture (Bornstein & Cote, 2010). Such beliefs may differ widely from those of their heritage culture (Bornstein & Cote, 2010; Roer-Strier, 2001). Since immigrant parents often bring with them the parenting cognitions of their heritage culture, they face the task of constantly balancing the parenting cognitions of two or more different cultures as they navigate their role as a parent in a new environment (Bornstein

& Cote, 2010; Cheah et al., 2013). Extant literature on parenting cognitions among immigrant populations suggest that many parents' thought processes adapt within new cultural contexts (e.g., Cheah et al., 2013; Cote et al., 2015; Qin, 2008); however, the degree of acculturation may vary by heritage culture and destination culture. For example, in a comparison between Japanese immigrant, South American immigrant, and European American mothers in the United States, Bornstein & Cote (2006) found that Japanese immigrant mothers either more strongly held on to parenting cognitions seen in Japan or fell somewhere between Japanese mothers and European American mothers. On the other hand, South American immigrant mothers were closer in their parenting cognitions to European American mothers than to mothers in Argentina. Authors of the study hypothesized this to be due to larger overlap in customs between South American and majority United States cultures than between Japanese and majority United States cultures. Overall, more research is needed to clarify the bicultural nature of immigrant parenting cognitions, the acculturation process of immigrant parents' beliefs, as well as how such beliefs influence parenting practices and child outcomes (Ma, 2020; Ng & Wei, 2020).

### **Bicultural Socialization Beliefs as Parenting Cognitions**

#### **in Chinese American Families**

A parenting cognition particularly relevant to immigrant families is bicultural socialization beliefs (Kim & Hou, 2016). Such beliefs involve parents' desire for their children to take on aspects of both their culture of heritage and the destination culture in order to be successful in the new cultural context (Cheah et al., 2013; Kim & Hou, 2016; Uttal & Han, 2011). These beliefs might also include parents' evaluations of differences

between heritage and destination cultures' parenting beliefs and practices (Cheah et al., 2013). By extension, this may involve parents' attitudes about which aspects from each culture to incorporate into their parenting for the benefit of their child's development and/or their effectiveness as parents (Cheah et al., 2013; Lieber et al., 2004; Qin, 2008). Thus, bicultural socialization beliefs reflect the complex acculturation process of parenting cognitions in immigrant parents as well as the adaptability and resiliency of immigrant parents who face the challenge of parenting in an unfamiliar cultural context. Furthermore, they reflect the variety of heritage culture and destination culture socialization goals seen in immigrant parents (Suizzo, 2007).

Multiple past studies of bicultural socialization beliefs have focused on the experiences of Chinese immigrant families living in the United States (e.g., Cheah et al., 2013; Kim & Hou, 2016; Lieber et al., 2004; Uttal & Han, 2011). Such families may be particularly useful models for examining bicultural socialization beliefs. This is due to large, documented differences between East Asian and Western cultures on social orientation (i.e., interdependence vs independence) and other cultural factors that influence parenting, although significant variability within and across ethnic groups certainly exists (Bornstein & Cote, 2006; Markus & Kitayama, 1991; Varnum et al., 2010). Thus, parents in Asian immigrant families in Western countries are required to consider potentially highly different cultural beliefs when determining how they wish to socialize their children. People of Chinese descent are among the largest Asian ethnic groups within the United States (Budiman & Ruiz, 2021a), making Chinese immigrant and Chinese American parents an important population for which to examine bicultural beliefs.

In considering bicultural socialization beliefs within a given population, it is important to discuss the beliefs often associated with parents' heritage culture and the beliefs often associated with parents' destination culture, as these constructs are heterogeneous and vary widely across immigrant and ethnic-minority experiences. Studies of Chinese immigrant and/or Chinese American parents have conceptualized parents' heritage socialization beliefs as those rooted in the interdependent and collectivistic cultural values more prominent in Chinese and several other non-Western cultures (Markus & Kitayama, 1991). For example, Chinese immigrant parents may wish their children to learn to respect adults, put the needs of the group over the needs of the individual, or uphold harmonious relationships (Padmawidjaja & Chao, 2010; Costigan & Su, 2008; Huang et al., 2017). In contrast, Chinese American/immigrant parents' destination socialization beliefs may more strongly reflect the independent and individualistic cultural values often associated with the European/European American cultures predominant in the Western countries to which they immigrate (Markus & Kitayama, 1991; Schwartz et al., 2010). Beliefs may manifest as parents wanting their children to build their own unique identities, freely express themselves, or learn to be independent from others (Padmawidjaja & Chao, 2010; Suizzo et al., 2008). Although such values are predominant in many Western countries, it is important to acknowledge that destination countries such as the United States consist of multiple cultures/subcultures with unique constellations of cultural values. Together, these cultures/subcultures reflect the heterogeneity in racial, ethnic, and immigration experiences present in such countries (e.g., Ferguson et al., 2014; Kim & Hou, 2016). It would thus be remiss to consider "American" culture to be solely defined by the

individualistic European/European American values that are often dominant. For example, values related to collectivism are prominent in Mexican American as well as American Indian and Alaska Native cultures (Morgan Consoli & Llamas, 2013; Tippeconnic III & Tippeconnic Fox, 2012). In addition, a belief's association with a certain cultural or racial context does not mean it is not present within parents of other cultural or racial backgrounds, and assuming so would be an oversimplification (Suizzo et al., 2008). With these points in mind, studies have consistently demonstrated that Chinese American parents adopt more interdependent and collectivistic socialization beliefs but less independent and individualistic socialization beliefs than their European American counterparts (Padmawidjaja & Chao, 2010; Suizzo et al., 2008). The presence of bicultural socialization beliefs among Chinese American parents could presumably reflect parents emphasizing some combination or hybrid of Chinese heritage values and predominant European American values for the well-being of their children.

### **Mother-Father Differences and Interdependence in Chinese American Parents**

When examining parenting cognitions such as bicultural socialization beliefs in heterosexual, two-parent families, it is important to account for both mother and father processes in order to determine potential gender and parent role differences (Palkovitz et al., 2014). For immigrant families, the immigration process and resulting adaptation to the destination country may alter pre-existing gender roles in parenting (Lamb & Boughner, 2009). For example, Qin (2009) described Chinese immigrant families in which economic difficulties post-migration contributed to mothers working more and spending less time with their children than pre-migration. Differences in parenting styles between mothers and fathers, including in Chinese immigrant families, have also been



established (Kim et al., 2013b; Simons & Conger, 2007). Lastly, Chinese immigrant mothers and fathers may differ on their acculturative experiences, such as their level of behavioral acculturation and their acculturative parenting beliefs (Costigan & Dokis, 2006; Costigan & Su, 2004). These differences may influence mother-father differences in attitudes towards their child (Chance et al., 2013).

Examination of both mother and father parenting processes also allows for the consideration of interdependence between parents. Mothers and fathers in heterosexual, two-parent families exist within a family system and a narrower parent subsystem; thus, their experiences, beliefs, and behaviors potentially influence one another (Cox & Paley, 2003; Minuchin, 1985). As immigrant parents may adopt new parenting approaches from socializing agents outside of their families as part of their acculturation process (Bornstein & Cote, 2010; Cheah et al., 2013), such a process may occur between parents as well. For example, Chinese American mother and father cultural orientations have been found to concurrently relate to one another's bicultural socialization beliefs (Kim & Hou, 2016). Cross-parent effects have also been demonstrated between Chinese American parents' mental health and the quality of the parent-child relationship (Hou et al., 2017). Our understanding of immigrant parenting experiences would benefit from examinations that provide insight on how Chinese immigrant mothers and fathers' cultural experiences, acculturative parenting cognitions, and parenting behaviors mutually influence and depend on one another (Cook & Kenny, 2005).

### **The Current Study**

The current dissertation project used quantitative techniques to examine parents' bicultural socialization beliefs in a sample of Chinese American families living in the

United States. Attention was paid to Chinese American parents' broader socio-cultural experiences as well as interactions and influences within their families. Specifically, the dissertation focused on four primary research questions across four studies:

- 1) What are the demographic and immigration-related factors that predict the development of bicultural socialization beliefs?
- 2) What is the relation between mother's and father's bicultural socialization beliefs and subsequent outcomes of their children, and do parents' behaviors mediate this relation?
- 3) What is the nature and direction of the relation between mother's and father's bicultural socialization beliefs and intergenerational/acculturative conflict with her/his child?
- 4) How may the implications of bicultural socialization beliefs on child and family outcomes depend on parents' motivation for having such goals and levels of parental stress?

Together, the four research questions model a developmental cascade of parents' sociocultural contexts, parenting cognitions, parenting behaviors and interactions within the family, and finally the well-being of their children (see Figure 1; Bornstein et al., 2018). Although the four research questions were examined in four separate studies, the studies were designed to be interconnected, and findings from earlier research questions actively informed conceptualization of later ones. Data for the proposed work came from a multi-informant, longitudinal study of Chinese American families directed by Dr. Su Yeong Kim of the University of Texas at Austin. Bicultural socialization beliefs were conceptualized as a single dimension reflecting parents' desire for their child to adopt

*both* Chinese heritage values and mainstream American values. In this conceptualization of bicultural socialization beliefs, mainstream “American” values were not specifically defined (see Study 1 Method for more details on the bicultural socialization beliefs measure). For this dissertation, it was presumed that destination American values emphasized by the Chinese American parents likely included much of the European American values around independence and individualism that are predominant within the United States (Schwartz et al., 2010). As a result, many references to parents’ “destination” or “American” socialization beliefs throughout the dissertation pertain to the individualistic values commonly associated with European American culture, and many studies cited throughout the dissertation examined such types of socialization beliefs among Asian immigrant and ethnic-minority families. Nevertheless, these terms and studies are employed with the acknowledgement that, in reality, the United States consists of multiple cultures/subcultures, and “American” or “destination” culture cannot be solely defined by one set of cultural values. Overall, efforts were made to avoid using the sole descriptor of “American” when beliefs and other constructs were clearly associated with European American culture, and to rely on the original language from the cited studies when constructs were less clear.

The dissertation begins with a presentation of the general study method. Each of the four studies is then described in full. Individual study descriptions include a literature review introducing the study’s research question, followed by the study’s respective aims and hypotheses, specific method, and results. Each study description then concludes with a discussion specific to that study focused on interpretation of findings and potential areas of future research. A general integrative discussion is presented at the end of the

dissertation to provide an overview of findings and present study strengths, limitations, and implications for practice. Existing studies have varied in the terminology used to describe the countries and/or cultures that contribute to an individual's acculturative and immigration experience. Throughout the dissertation, the word "heritage" is used to describe the country or culture from which an individual emigrates, and the word "destination" is used to describe the country or culture to which an individual immigrates.

### **Theoretical Orientation**

Broadly, the dissertation is guided by ecological systems theory in understanding the development of Chinese American parents' bicultural socialization beliefs and its influence on family processes (see Figure 2; Bronfenbrenner, 1992/2005; Darling, 2007). Throughout the dissertation project, focus was placed on the multiple systems in which Chinese American parents function as well as parents' interpretations and responses to interactions and experiences within systems. At the more macro levels, this involves parents' broader cultural and societal experiences of immigration, acculturation, and stigmatization. Focus was also placed on parents' experiences at the family system level, such as in interactions with their children, and at the parental unit level, specifically in the way parents mutually influence each other. Central in all examinations were mothers' and fathers' bicultural socialization beliefs, and research questions reflected how parents' individual thought processes influence, and are influenced by, experiences at different levels.

Within this broader ecological systems framework, the dissertation project was influenced by the overlapping theoretical frameworks on parenting cognitions (Bornstein & Cote, 2006) and parental ethnotheories (Harkness & Super, 2002). Both frameworks

pertain to parenting thought processes, such as socialization goals and beliefs around parental role, with a specific emphasis on how cognitions are influenced by, and reflections of, parents' cultural and social contexts (Bornstein & Lansford, 2010; Harkness & Super, 2006; Okagaki & Bingham, 2005). Naturally, these thought processes are intimately tied to parents' behaviors towards their children (Bornstein & Lansford, 2010; Harkness & Super, 2002; Okagaki & Bingham, 2005). Lastly, the current studies drew upon contemporary models of acculturation in which acculturation processes are conceptualized as multidimensional (Schwartz et al., 2010). The construct of bicultural socialization beliefs reflects multidimensionality by encompassing parents' beliefs about both heritage culture and destination culture values for their children (Berry, 1992; Kim & Hou, 2016; Schwartz et al., 2010). In addition, the proposed work acknowledges multidimensionality in domains of acculturation through centering on the domains of parents' acculturative values and socialization goals. Altogether, the more focused ethnotheories, parenting cognitions, and acculturation frameworks underly the mechanisms between the parents' internal thought processes at the individual level to their broader experiences of family, society, and culture. In addition, these frameworks illustrate how immigrant mothers and fathers develop as parents within these multiple systems over time (Bronfenbrenner, 1992/2005).

## **General Method**

### **Participants**

Participants in the current studies include mothers, fathers, and adolescents/young adults from a three-wave longitudinal study of Chinese American families living in Northern California, directed by Dr. Su Yeong Kim of the University of Texas at Austin

(Kim et al., 2017; Kim et al., 2013b). Wave 1 data collection occurred in 2002 (N=444 families), with subsequent waves being collected in 2006 (N=350 families) and 2010 (N=330 families). In the three-wave longitudinal study, adolescents from the families were ages 12 to 15 at Wave 1 ( $M=13.03$ ,  $SD=.073$ ). At Wave 2, adolescents were around high-school-aged and at Wave 3 they were around college-aged. Of the adolescents participating in the three-wave study, approximately half were female (54%). Median family income, as reported for the three-wave longitudinal study, was \$30,001-\$45,000. Mothers and fathers of the study had median levels of education of some high school education. A majority of the families immigrated from southern China or Hong Kong, with 91% percent of mothers, 88% percent of fathers, and 25% percent of children being born outside of the United States. Among the parents in the sample, there was a variety of occupations present, including both unskilled and professional jobs.

Attrition analysis conducted to compare participants who did and did not return at Waves 2 and 3 of the three-wave longitudinal study found boys to be less likely to have participated after Wave 1. Differences were not found on any other demographic variable from Wave 1, specifically child age, child generational status, parent age, parent generational status, parental education, and family income (Kim et al., 2013b).

### **Procedure**

Recruitment of adolescents and parents for the three-wave longitudinal study occurred across seven middle schools in metropolitan Northern California (Kim et al., 2017; Kim et al., 2013b). Chinese American students in the schools were first identified with the help of school administrators. Parent consent and adolescent assent procedures were then conducted through sending letters to the families of the identified students.

Letters sent to the eligible families contained descriptions of the research study written in both Chinese and English. Upon completion of consent and assent procedures, families were given packets containing questionnaires for the mother, father, and adolescent to be completed independently.

Questionnaires were presented in both Chinese and English, and participants could choose which version to complete. Preparation of the questionnaires in both languages involved translation of the English version of the questionnaire into Chinese followed by translation of the questionnaire back into English. Bilingual/bicultural research assistants were tasked with addressing any inconsistencies between the back-translated versions and the initial English versions of the questionnaires.

Research personnel went to the students' schools around two to three weeks after packets were initially sent in order to collect completed questionnaires. Of the families identified across the seven schools, 47% completed consent and assent procedures; of these families, 76% returned questionnaires. Families who participated at Wave 1 of the study were contacted at Wave 2 and Wave 3 and asked again to participate in the three-wave study. Families were financially compensated for returning questionnaires at each wave in which they participated, with \$30 given at Wave 1 of the study, \$50 at Wave 2 of the study, and \$130 at Wave 3 of the study. IRB approval for the three-wave longitudinal study was initially received by Dr. Su Yeong Kim at the University of California, Davis for Wave 1, Arizona State University for Wave 2, and the University of Texas at Austin for Wave 3. For purposes of this dissertation project, the University of Massachusetts IRB ruled that the study did not require review because data collection has been completed and responses cannot be linked back to the participants.

## **Measures**

Measures to be used in each study are described in their respective study methods. Reliability values provided for measures are taken from the current study, unless otherwise indicated. All measure items not completely listed in the text are presented in the Appendix.

## **Analysis Plan**

For all studies in the dissertation, analyses began with examination of distributions and reliabilities of items and measures of interest. Preliminary analyses also involved examining bivariate correlations of variables within each study to determine feasibility of research questions. As the current study involved reports from both mothers and fathers, efforts were made to account for dependency in all analyses and differences between mother and father processes where appropriate. Missing data was addressed utilizing full-information maximum likelihood estimation in MPlus 8 software (Muthén & Muthén, 1998-2017). Because of the variation in variables and waves of data used across the four studies, levels of missing data and sample sizes differed from one study to the next. Sample sizes are specified within each individual study method. Lastly, as the four studies were designed to be interconnected, certain statistical analyses decisions in later studies were influenced by results from earlier analyses.

Given the complexity of analyses across the four studies, the use of covariates within study models was considered sparingly. Of note, two variables were considered due to the developmental nature of the studies: adolescent age and whether the adolescent/young adult lived with one or more birth parent. These potential covariates were tested through conducting bivariate correlations between these variables and the



outcome variables within each study. Results of the analyses indicated little to no relations; thus, the variables were not included as covariates in any of the four studies. Lastly, adolescent gender was not used as a covariate across the four studies due to lack of gender-related differences in previous studies of bicultural socialization beliefs, parenting behaviors, and adolescent outcomes with the current sample (Kim et al., 2013a; Kim & Hou, 2016).

## CHAPTER 2

### STUDY 1: DEVELOPMENT OF BICULTURAL SOCIALIZATION BELIEFS IN CHINESE IMMIGRANT PARENTS

#### Study 1 Literature Review

Before examining its implications for parent and family processes, it is important to understand the factors that may contribute to the development of bicultural socialization beliefs among Chinese immigrant parents. To begin, bicultural socialization beliefs in Chinese immigrant parents appear to be rooted in their own experiences of cultural identity. Specifically, such beliefs in parents have been shown to be positively related to their Chinese cultural orientation, American cultural orientation, and Chinese American orientation, as well as being associated with the interaction between their Chinese and American orientations (Kim & Hou, 2016). Such findings reflect the bicultural nature of these beliefs, in that they are potentially influenced by the different cultures parents navigate in addition to the interplay between such cultures (Kim & Hou, 2016; Schwartz et al., 2010). Other demographic and immigration-related factors may also contribute to the development of such beliefs in parents. For example, immigrant parents in the United States may adopt certain Westernized parenting cognitions through interactions with socializing agents (e.g., other parents, media, etc.) outside of their family (Bornstein & Cote, 2010; Cheah et al., 2013), which then influences their approach to parenting their children. Therefore, one may expect parents who have had more time and opportunities to engage with Western socializing agents to also adopt more bicultural socialization beliefs.

Some support for this hypothesis has emerged from literature on bicultural identity more broadly. Specifically, Asian immigrant parents in the United States with bicultural identity orientations have been found to have lived in the United States for longer than parents with high heritage identity but low United States identity (Huang et al., 2017). However, some research on immigrant parents' socialization beliefs suggests the relation between how long an immigrant parent has lived in the United States and their bicultural beliefs may not be as straightforward. Among Chinese immigrant parents in Canada, for example, length of time in Canada was inversely related to parenting cognitions/socialization goals emphasized in Chinese culture (e.g., wanting their child to put the needs of the group over the needs of the individual; Costigan & Su, 2008). As bicultural socialization beliefs imply parents' emphasis in both heritage country *and* destination country socialization beliefs, their relation to the number of years since immigration may therefore be complex. In general, it may be difficult to extrapolate how bicultural socialization beliefs may relate to factors like length of time in the destination country through findings on how these factors relate to heritage and Western socialization goals separately.

Like length of time in the destination country, socioeconomic status (SES) may be another factor that influences parents' ability to interact with socializing agents that help promote the development of bicultural socialization beliefs. For example, parents of higher SES may have more time and opportunities to learn about parenting values in America, or they may live in communities with more parenting resources (Cheah et al., 2013). Many findings regarding Asian immigrant parenting cognitions come from middle-class and/or highly educated contexts (e.g., Bornstein & Cote, 2006; Cheah et al.,

2013; Lieber et al., 2004; Shen et al., 2019; Uttal & Han, 2011), suggesting the need to examine the experiences of lower-SES families and variations in SES in general.

Although little literature exists on the relation between immigrant parents' SES and their bicultural parenting cognitions, variations in SES among Chinese immigrant parents have been found to relate to their values for their children. For example, Yamamoto and Li (2012) compared lower-SES Chinese immigrant parents, middle-class Chinese immigrant parents, and middle class European American parents on their views towards preschool quality. When talking about preschools, lower-SES Chinese immigrant parents appeared to place more emphasis on preschools helping their children learn material and meet academic expectations than did either middle-class Chinese immigrant parents or European American parents (Yamamoto & Li, 2012). Yamamoto and Li (2012) interpreted this finding as lower-SES Chinese immigrant parents potentially feeling less qualified than other parents to teach their children, hence a higher reliance on preschools for education. In addition, family SES was positively correlated with young adult's reports of U.S. socialization by their family among a sample of immigrant young adults in the United States (Zhang et al., 2018).

Also of importance are changes in socio-economic status that may occur when Chinese families immigrate. To begin, many immigrant parents experience a loss in socio-economic status upon immigration (Qin, 2008). To illustrate, Qin (2008) described Chinese parents who were professionals such as doctors or executives in their country of origin but struggled to replicate their occupational success in the United States. Such loss reflected one of multiple post-migration challenges that contribute to Chinese immigrant parents' stress and anxieties (Qin, 2008). By focusing on only Chinese immigrant

parents' post-immigration socioeconomic status, certain aspects of their parenting experience may not be revealed. For example, middle-class parents in China differ in their parenting cognitions than Chinese parents from lower socioeconomic status backgrounds (e.g., expectations for their child's education level; Poon, 2020). A currently working-class but previously middle-class immigrant parent might retain the middle-class values and beliefs they had prior to immigration, and thus differ from a currently working-class parent who experienced little loss in status. Overall, the nature of the relation between Chinese immigrant parents' bicultural socialization beliefs and complex socioeconomic experiences has yet to be systematically investigated. Examinations of parenting cognitions in immigrant populations, such as bicultural socialization beliefs, would benefit from accounting for the variety of ways social status intersects with the immigrant experience.

Furthermore, immigrant parents' education level may also predict their bicultural socialization beliefs, as their education has been found to relate to heritage culture socialization and destination culture socialization cognitions separately. Among a sample of Chinese immigrant and European-American mothers, level of education was positively related to individualistic socialization goals that are often predominant within Western culture, such as wanting the child to develop their own unique identity and express themselves (Chao, 2000). In addition, level of education was positively related to socialization beliefs linked to interdependence, including parents valuing socializing their children to conform to social norms and respect adults, among a sample of Asian American parents (Suizzo et al., 2008). However, among Chinese immigrant parents in Canada, education level was negatively related to socialization goals emphasized in

Chinese culture, namely a parent's desire for their child to put the needs of the group over the child's own needs and uphold harmonious relationships (Costigan & Su, 2008). Given these potentially contrasting findings, how parents' education level relates to beliefs that simultaneously promote heritage and destination values requires investigation.

Lastly, Chinese immigrant parents' bicultural socialization beliefs may be predicted by stigmatizing experiences outside of the family. Asian immigrant parents' experiences of discrimination contribute to their adoption of ethnic-racial socialization behaviors, such as preparation for bias (Benner & Kim, 2009; Woo et al., 2020). Like ethnic-racial socialization, immigrant parents' bicultural socialization beliefs reflect their desire to prepare their children for succeeding in a pluralistic cultural context. Thus, parents who report higher levels of stigmatization may also be motivated to adopt higher levels of bicultural socialization beliefs for their children.

### **Study 1 Aims**

The goal of Study 1 was to examine the demographic and immigration-related factors that longitudinally predict the development of bicultural socialization beliefs among Chinese American mothers and fathers. Focus was placed on when the children of the parents were in early adolescence to mid adolescence given the significance of these time periods for children's development of values and sense of self (e.g., Daniel & Benish-Weisman, 2019; Kroger, 2005).

To begin, parents' bicultural socialization beliefs have previously been found to be cross-sectionally positively related to both their Chinese and American cultural orientations in a previous study of the current sample (Kim & Hou, 2016). The current study aimed to extend these findings by examining whether parents' Chinese cultural

orientation and American cultural orientations predicted displays of bicultural socialization beliefs longitudinally. Consistent with findings from the previous study, it was hypothesized that both Chinese cultural orientation and American cultural orientation would positively predict later bicultural socialization beliefs. As Chinese American orientation, a theoretically distinct hybrid of Chinese orientation and American orientation employed in the previous study, was not measured at an earlier time point, it was not utilized in the current study (Kim & Hou, 2016).

To model biculturalism, the previous study also established an association between bicultural socialization beliefs and the interaction between Chinese orientation and American orientation, with there being a more positive relation between American orientation and bicultural socialization beliefs under lower levels of Chinese orientation (Kim & Hou, 2016). The current study similarly utilized the interaction between Chinese and American orientation as a longitudinal predictor of bicultural socialization beliefs. Such an interaction method has often been used to model bicultural orientation processes (e.g., Pham & Lui, 2019; Yu et al., 2016), and aligns with early, influential bidimensional models of acculturation focusing on different combinations of heritage and destination cultural orientation levels (Berry, 1992; Schwartz et al., 2010).

In addition, based on existing literature on immigrant parents' immigration experiences, Study 1 examined whether parents' bicultural socialization beliefs were longitudinally predicted by the following parent demographic factors: length of time living in the United States, education level, perceptions of socio-economic stress, and post-immigration change in socio-economic/social status. The decision to utilize parents' perceptions of socioeconomic stress over more traditional measures of socio-economic

status was due to the desire to more closely capture aspects of socio-economic status that may be related to the development of bicultural socialization beliefs, namely, parents' ability and opportunities to interact with socializing agents outside their family (Bornstein & Cote, 2010). More specifically, it was hypothesized that a Chinese immigrant parent who is consistently preoccupied with financial considerations would have less time to interact with people (e.g., other parents, teachers, etc.) or media that could impart bicultural or Western parenting values.

Given existing theories on the acculturation process of immigrant parenting cognitions and practices (Bornstein & Cote, 2010; Cheah et al, 2013), it was hypothesized that bicultural socialization beliefs in Chinese immigrant families would be positively predicted by demographic factors that promote parents' exposure to external socializing agents (i.e., longer length of time in the US, higher level of education, lower levels of socio-economic stress). However, it is acknowledged that such a prediction is complicated by findings in which some of these factors were negatively related to specifically Chinese socialization beliefs in immigrant families (Costigan & Su, 2008). Chinese immigrant parents' change in social/socioeconomic status post-immigration has seen limited quantitative examination in the existing literature. Thus, analyses involving those variables were exploratory.

Lastly, the current study examined the longitudinal relation between parents' experiences of discrimination and their bicultural socialization beliefs. Building upon past findings involving discrimination and racial socialization/preparation for bias in Chinese immigrant families (Benner & Kim, 2009), it was hypothesized that higher levels



of discrimination would predict higher levels of bicultural socialization beliefs at a later time point.

## **Study 1 Method**

### **Participants**

Participants in Study 1 included mothers and fathers from Wave 1 and Wave 2 of the three-wave longitudinal study. Study 1, being concerned with the development of bicultural socialization beliefs, is focused on the experiences of parents who have immigrated and thus experienced the socialization influences from living in both their heritage country and the United States. For this reason, participants in study 1 included a subsample of 379 families in which both the mother and father were foreign-born (Kim et al., 2013a).

### **Measures**

#### **Bicultural Socialization Beliefs**

The current study used a 3-item self-report scale to measure Bicultural Socialization Beliefs in Chinese immigrant mothers and fathers at Wave 2. The scale was created by Dr. Su Yeong Kim and was administered at both Waves 2 and 3 of the three-wave longitudinal study (Kim & Hou, 2016). The three items in the scale are: 1) “To be successful in America, my child needs to pick up some American values and behaviors”, 2) “I want my child to be ‘American’ but still retain parts of his/her Chinese culture”; and 3) “Even though I would like my child to follow the Chinese way of doing things, I know s/he should follow some American ways to ensure a good future in America”. Items were developed from qualitative studies on bicultural socialization beliefs in Chinese immigrant families (Kim & Hou, 2016; Lieber et al., 2004). Mothers and fathers rated

each item on a scale from 1 (strongly disagree) to 5 (strongly agree), and scores on items were averaged together. At Wave 2, internal consistencies were  $\alpha = .77$  for mothers and  $\alpha = .82$  for fathers.

### **Cultural Orientation**

Mothers' and fathers' Chinese cultural orientations and American cultural orientations at Wave 1 were measured using the Vancouver Index of Acculturation, a 20-item self-report measure (VIA; Ryder et al., 2000). The VIA takes a bidimensional approach to acculturation in that items are separated into 10 domains, with each domain consisting of one item representing American mainstream culture and one item representing the respondent's heritage culture (i.e., Chinese). Items on the scale encompass attitudes, values, behaviors, and interests corresponding to the two cultures. Example items included "I enjoy Chinese/American entertainment" and "I believe in Chinese cultural/mainstream American values". Respondents were asked to indicate on a 5-point Likert scale the degree to which they agree with each item (1-strongly disagree; 2-disagree; 3-neutral/depends; 4-agree; 5-strongly agree). The 10-items corresponding to a cultural orientation were averaged, resulting in one measure of Chinese cultural orientation and one measure of American cultural orientation for each parent, for a total of four cultural orientation scales. Higher average scores on the measure indicate stronger endorsement of the respective cultural orientation. Previous studies have found the VIA to have adequate reliability for research purposes as well as concurrent validity with constructs such as time spent living in Western countries and generational status (Huynh et al., 2009; Ryder et al., 2000). Internal consistencies across the four scales ranged from  $\alpha = .82$  to  $\alpha = .84$ .

## **Demographic Factors**

### **Length of Time in the United States**

Mothers' and fathers' lengths of time living in the United States at Wave 1 was approximated through a combination of subtracting the year in which they came to the United States from the date in which they completed the survey or subtracting the age at which they arrived in the United States from their age at the time of the study. This method has been utilized in previous examinations of this sample (Kim et al., 2009). Mother's length of time in the United States ranged from .40 to 40.28 years whereas father's length of time in the United States ranged from .25 to 54.42 years.

### **Education Level**

Mothers' and Fathers' education level at Wave 1 was measured in the three-wave longitudinal study through a 9-point ordinal scale. Mothers and fathers were asked to endorse one of the following: "No formal schooling"; "Some elementary school"; "Finish elementary school"; "Finish middle school/junior high school"; "Some high school"; "Finish high school"; "Some vocation or college training"; "Finished bachelor's degree"; "Finished graduate degree". All levels of education were present for mothers and fathers in the current study.

### **Socio-economic Stress**

In the current study, mothers' and fathers' perceptions of socio-economic stress at Wave 1 were conceptualized as three constructs: financial difficulties, financial strain, and financial adjustment. To measure parents' perceptions of financial difficulties, participants responded to one question adapted from the Iowa Youth and Families Project (Conger et al., 1989-1992; Conger et al., 1995; Ge et al., 1996): "Think back over the

past 3 months, how much difficulty did you have with paying your bills?”. Participants responded on a scale from 1 (none at all) to 5 (a great deal). Similarly, parents’ perception of financial strain was also measured by a single item adapted from the Iowa Youth and Families Project (Conger et al., 1989-1992; Conger et al., 1995; Ge et al., 1996): “Think back over the past 3 months. Generally, at the end of each month, how much money did you end up with?”. Participants responded on a scale from 1 (more than enough) to 5 (very short). Lastly, mothers’ and fathers’ financial adjustment was measured using a 9-item scale (Conger et al., 2002). Each item asked whether the respondent’s family made the following financial adjustment in the past three months in response to financial need. Examples of items include “changed food shopping or eating habits a lot to save money” and “added another job to make ends meet”. Participants responded with either 0 (no) or 1 (yes). Responses on the 9-items were summed together, with higher scores indicating more financial adjustments made by the family in the past three months.

### **Change in Socio-Economic Status**

Mothers’ and Fathers’ change in socio-economic status at Wave 1 were estimated using two 4-item self-report measures. The first scale was a measure of Status Change created by Dr. Su Yeong Kim for the three-wave longitudinal study. Items on this scale targeted parents’ perception of how much their current life in the United States is improved compared to their lives in the country from which they immigrated. Items on the scale include “Your occupation in the U.S. gets more respect from people”, “Your occupation in the U.S. is better”, “Your life is better in the U.S.”, and “Your economic situation has improved in the U.S.”. Respondents were asked to indicate on a scale from 1

(strongly disagree) to 5 (strongly agree) the extent to which they agreed with each item. Responses on the items were averaged together, with higher scores indicating stronger feelings of improvement after immigrating to the United States. Internal consistencies on this scale were  $\alpha = .84$  for mothers and  $\alpha = .83$  for fathers.

The second scale used to capture change in socioeconomic status was a measure of Work Dissatisfaction consisting of items adapted from measures by Wickrama and colleagues for work control and person-work mismatch (Wickrama et al., 2005; Wickrama & O’Neal, 2019). Items on the scale encompass parents’ feelings about their current occupation’s lack of match with their occupational skills and educational background. Items include “My job matches my education and experience”, “I have skills from training or experience that I would like to use, but can’t use in this job”, “I am over qualified for the work that I do in this job”, and “I wonder whether my education and experience could be put to better use in another job”. Respondents were asked to indicate on a scale from 1 (strongly disagree) to 5 (strongly agree) the extent to which they agreed with each item. Responses on the first item were reverse-scored, and items were then averaged together, with higher scores indicating stronger feelings that the parents’ current job does not meet their education and experiences. Internal consistencies on this scale were  $\alpha = .76$  for both mothers and fathers.

Independently, each of the two measures did not specifically capture experiences of decrease in social status, with the first capturing experiences of upward social mobility post-immigration and the second not specifically pertaining to pre- and post-immigration comparisons. For this reason, both scales were used as predictors of bicultural socialization beliefs in the current study. As both scales had not been used in previous

studies, confirmatory factor analyses for the two scales were integrated into models for the primary analyses (see results from Measurement Model).

### **Parent-perceived Discrimination**

Mothers' and father's perceptions of discrimination were measured using a self-report measure of everyday discrimination developed for the MacArthur Foundation Midlife Development in the United States survey (MIDUS; Kessler et al., 1999). Participants were asked how often they experienced specific forms of discrimination on a day-to-day basis. Examples of specific forms of discrimination included "I am treated with less courtesy than other people" and "People act as if they think I am not smart". Mothers and fathers responded to these items on a 4-point Likert scale ranging from 1 (never) to 4 (often). In addition, one item was added to the scale that captures a form of discrimination particularly relevant to the current sample: "People assumed my English is poor" (Benner & Kim, 2009). This resulted in a total of 10 items that were averaged together, with higher average scores reflecting higher reports of everyday discrimination. Internal consistencies on the discrimination scales were  $\alpha = .85$  for mothers and  $\alpha = .87$  for fathers.

### **Analysis Plan**

Prior to analyses, all variables for to be used in interaction terms (i.e., mother's and father's Chinese and American cultural orientations) were mean-centered. To examine the demographic and immigration-related factors that predict the development of bicultural socialization beliefs, a series of nested regression models were created utilizing MPlus 8 software (Muthén & Muthén, 1998-2017; see Figure 3 for conceptual model). Predictors at Wave 1 were regressed in steps onto mothers' and fathers' bicultural

socialization beliefs at Wave 2, with paths to be specified in later steps initially set to 0. For all models in the series, mother and father paths were modeled simultaneously, and residuals for the mother bicultural socialization beliefs variable and the father bicultural socialization beliefs variable were correlated. This was done to account for dependency in these outcome variables (Fitzpatrick et al., 2016).

Preliminary analysis consisted of bivariate correlations run between study variables in SPSS. Simplified dyadic regression models consisting of limited numbers of select predictors (with other predictor paths set to 0) were also created in MPlus 8 software (Muthén & Muthén, 1998-2017) based on results from the bivariate correlations. These preliminary analyses were conducted in order to determine whether effects tracked from simpler analyses to the more complex dyadic models with multiple variables controlling for each other. Tracking of effects as models increased in complexity would give more confidence to any significant findings in the final model.

Prior to the creation of the nested regression models, a measurement model was created for all of the latent variables to be used. Mothers' perceptions of socioeconomic stress and fathers' perceptions of socioeconomic stress were each measured using latent variables consisting of measures of their respective financial difficulty, financial strain, and financial adjustment. In addition, the Status Change and Work Dissatisfaction scales for mothers and for fathers have not been used in previous studies. Thus, they were modeled as latent variables with items within each measure loading onto their respective measure factors. This resulted in a measurement model consisting of six latent variables, three for mothers and three for fathers, reflecting the three study constructs (socioeconomic stress, status change, and work dissatisfaction). All latent variables

within the measurement model were correlated with each other, and variances for identical items across parents were also correlated (Kenny et al., 2006). All paths specified in the measurement model were retained for the nested regression models.

The first nested regression model in the series specified paths from the following demographic-related variables to mother's and father's bicultural socialization beliefs: length of time living in the United States, education level, socioeconomic stress, status change, and work dissatisfaction. All other paths were initially set to zero. In the second model, the paths from Chinese cultural orientation and American orientation were specified, and in the third model, the interaction terms for Chinese orientation and American orientation were introduced. The interaction effect between Chinese orientation and American orientation was evaluated through examining the significance of the regression coefficient of the interaction term. In the fourth and final model, the paths from mother's and father's perception of discrimination were specified.

## **Study 1 Results**

### **Preliminary Analyses**

Complete bivariate correlations are presented in Table 1. Of note, mother's bicultural socialization beliefs at Wave 2 were positively predicted by both Chinese cultural orientation ( $r = .23, p < .001$ ) and American cultural orientation ( $r = .18, p = .004$ ) at Wave 1. Mother's bicultural socialization beliefs were marginally positively predicted by mother's level of education at Wave 1 ( $r = .11, p = .079$ ) and marginally negatively predicted by mother's perceptions of financial strain at Wave 1 ( $r = -.11, p = .091$ ). No significant bivariate correlations were found between father's bicultural socialization beliefs at Wave 2 and father's predictor variables at Wave 1. However,



within fathers, there was a marginal, positive effect of American cultural orientation on bicultural socialization beliefs ( $r = .11, p = .099$ ).

Simplified dyadic regression models were created based on the results from the bivariate correlations (see Table 2 for full results). For these models, paths for specific predictors were set to be estimated, while all other paths remained set to 0. Given the potential predictive effects of cultural orientation, two models were created specifying paths from only mother's American cultural orientation and father's American cultural orientation and then only mother's Chinese cultural orientation and father's Chinese cultural orientation. In the model with only Chinese cultural orientation specified, mother's bicultural socialization beliefs were longitudinally predicted by their Chinese orientation ( $b = .32, SE = .083, p < .001$ ), and father's bicultural socialization beliefs were marginally predicted by their earlier reports of Chinese orientation ( $b = .17, SE = .10, p = .084$ ). In the model with only American cultural orientation specified, mother's bicultural socialization beliefs were longitudinally predicted by their American cultural orientation ( $b = .22, SE = .085, p = .012$ ), but no effect was found within fathers. All four cultural orientation variables (two for mothers and two for fathers) were then entered together. Mother's Chinese cultural orientation continued to predict their later bicultural socialization beliefs ( $b = .29, SE = .084, p < .001$ ), whereas the effect of mother's American cultural orientation was marginal ( $b = .16, SE = .085, p = .060$ ). There were no effects of cultural orientation for fathers. Finally, interaction terms for the interaction between American cultural orientation and Chinese cultural orientation were entered into this model. There were no significant interaction effects.

Due to the marginal effects of mother's education level and mother's perception of financial strain at Wave 1 seen in the bivariate correlations, these two mother predictors were specified independently in regression models, with mother's financial strain represented by the mother socioeconomic stress latent variable (all father paths remained set to 0). Paths for mother's education level and mother's perception of financial stress were not significant.

## **Primary Analyses**

### **Measurement Model**

Results of the measurement model found the model to be an adequate fit for the data ( $\chi^2(183) = 425.65, p < .001$ ; RMSEA = .059, [.052, .066]; CFI = .92; SRMR = .062). All variances for latent variables were set to 1 for modeling purposes. Factor loadings and residuals are presented in Table 3. Factor covariances and error covariances are presented in Table 4. All indicators significantly loaded onto their respective factors.

### **Study Model**

Full results from primary analyses are presented in Table 5. In step 1, paths from mother's and father's length of time living in the United States, education level, socioeconomic stress, status change, and work dissatisfaction at Wave 1 to their respective bicultural socialization beliefs at Wave 2 were specified. Results indicated that mother's length of time in the United States significantly predicted mothers' later level of bicultural socialization beliefs in that mothers who had spent less time in the United States had higher levels of later bicultural socialization beliefs ( $b = -.011, SE = .005, p = .044$ ). Mother's education level marginally positively predicted later bicultural socialization beliefs ( $b = .041, SE = .024, p = .091$ ). No other paths were significant.

In step 2, paths from mother's and father's Chinese cultural orientation and American orientation to their respective bicultural socialization beliefs at Wave 2 were added. Results from this model indicated that higher levels of mother's Chinese cultural orientation at Wave 1 predicted higher levels of mother's bicultural socialization beliefs at Wave 2 ( $b = .254, SE = .086, p = .003$ ). Mother's American cultural orientation marginally predicted later bicultural socialization beliefs ( $b = .162, SE = .089, p = .069$ ). The previously significant path from mother's length of time in the United States to later bicultural socialization beliefs was now marginally significant ( $b = -.009, SE = .005, p = .084$ ). No other paths were significant.

In step 3, the interaction terms for the interaction between Chinese cultural orientation and American cultural orientation were introduced. There were no significant effects of interaction between Chinese cultural orientation and American cultural orientation on later bicultural socialization beliefs for mothers nor fathers, as determined through examining the regression coefficients for the interaction terms.

Finally, in step 4, paths from mother's and father's perceptions of discrimination were added. There was no significant effect of perceptions of discrimination on later bicultural socialization beliefs for either parent. In the final model, the relation between mother's length of time in the United States and later bicultural socialization beliefs was once again significant ( $b = -.011, SE = .005, p = .040$ ). As in previous steps, the regression coefficient for mother's Chinese cultural orientation was significant ( $b = .25, SE = .085, p = .004$ ), indicating a positive relation between mother's Chinese cultural orientation and later bicultural socialization beliefs at average levels of mother's American cultural orientation.

### **Study 1 Discussion**

Consistent with the previous study utilizing this sample (Kim & Hou, 2016), results of analyses suggested that both Chinese cultural orientation and American cultural orientation may have positive implications for later bicultural socialization beliefs in mothers. Such a finding reflects the potentially multidimensional nature of mothers' bicultural values (Berry, 1992; Schwartz et al., 2010). However, when controlling for each other, only the effect of Chinese cultural orientation remained. This suggested that, within this sample, mother's connection with their heritage identity played a stronger predictive role in their values towards their child being bicultural, as compared to their American identity.

The cultural orientation findings were accompanied by a negative predictive effect found for mother's length of time in the United States during steps 1 and 4. It is unclear how or whether these two findings may complement each other. Mothers who have lived fewer years in the United States could have had less opportunities to acculturate and be exposed to Western socializing agents (Bornstein & Cote, 2010; Cheah et al., 2013); however, that does not necessarily mean they are then more able to retain their Chinese cultural orientation than mothers who have lived in the United States for longer periods of time (Schwartz, et al., 2010). In fact, preliminary bivariate correlations in the current study indicated mother's length of time in the United States was not related to their Chinese cultural orientation but was positively associated with their American cultural orientation. Of note, however, length of time in the destination country was previously found to be negatively associated with parenting cognitions and socialization goals consistent with Chinese culture in a sample of Chinese Canadian

immigrant parents (Costigan & Su, 2008). As the predictive effect of time in the United States was only present when controlling for multiple other demographic and immigration-related factors, further work and replication may be needed before the finding can be accurately interpreted. Overall, results from the current study may suggest there to be a strong presence of Chinese parenting cognitions within the bicultural socialization beliefs of the current sample.

Within the current study, mother's and father's bicultural socialization beliefs were not longitudinally predicted by multiple factors found to relate to parenting cognitions and socialization goals in other studies of Asian parents living in Western countries. This included parents' levels of education and aspects of parents' financial situations. One reason for the lack of findings could involve the existing contrasting findings on destination socialization goals and heritage socialization goals separately. For example, level of education was found to be positively related to individualistic socialization goals among Chinese and European American parents (Chao, 2000) but negatively related to socialization goals consistent with Chinese culture among Chinese immigrant parents in Canada (Costigan & Su, 2008). If parents' bicultural socialization beliefs were in line with a bidimensional approach to acculturation and thus reflected high values on two cultural socialization dimensions simultaneously (i.e., heritage and destination; Berry, 1992; Schwartz et al., 2010), the two opposing effects could make any relation between bicultural beliefs and education level statistically difficult to discern.

Another reason for the lack of findings could be the length of time between the two timepoints: four years from Wave 1 to Wave 2. Some of the more ecological factors, such as parents' work and financial situations or their levels of perceived discrimination,

could fluctuate across that span of time if parents experienced relocation or some other major life event. Such occurrences would consequently make it challenging to examine longitudinal relations. Furthermore, lack of findings could be attributed to differences between the current sample and samples in previous studies of socialization goals. The current sample was composed of families from the West Coast of the United States, with median levels of parental education being some high school (Kim et al., 2017). Previous studies of socialization goals appeared to include participants with higher levels of education and/or from different geographic locations (e.g., Chao, 2000; Costigan & Su, 2008; Suizzo et al., 2008). Together, these factors may complicate any extrapolation from previous findings.

### **Future Research**

Prior to consideration of other predictors of bicultural socialization beliefs, future work could focus on identifying contemporaneous relations between bicultural socialization beliefs and the demographic/immigration-related factors in the current study. It is possible that relations could not be detected in the current study due to the length of time between reports. In addition, some of the predictors used in the current study inherently have longitudinal natures, such as parents' perceptions of post-immigration change in social status. Thus, contemporaneous relations with some predictors in the current study could still be argued to be predictive.

Importantly, future work in identifying predictors of bicultural socialization beliefs should take a more tri-dimensional approach to acculturation. Tri-dimensional models of culture acknowledge the existence of multiple hybrid subcultures, such as Chinese American culture. These subcultures combine aspects of the predominant

European American culture of the United States and individuals' heritage cultures into unique cultural experiences that are distinct (Ferguson et al., 2014; Kim & Hou, 2016). Consistent with a tri-dimensional model, bicultural socialization beliefs within the current sample were previously found to be predicted by Chinese American orientation more strongly than by Chinese orientation, American orientation, and the interaction between the two (Kim & Hou, 2016). Thus, assuming bicultural socialization beliefs most closely reflects parents' Chinese American orientation, examinations of predictors should focus on factors that capture the uniquely Chinese American experience, as opposed to reliance on factors found to predict heritage and destination socialization goals separately.

## CHAPTER 3

### STUDY 2: BICULTURAL SOCIALIZATION BELIEFS, YOUNG ADULT OUTCOMES, AND THE MEDIATING ROLE OF PARENTING BEHAVIORS

#### Study 2 Literature Review

Chinese American parents' bicultural socialization beliefs have implications for their adolescent child's own bicultural socialization beliefs and cultural orientation (Kim & Hou, 2016). However, less is known about how parents' bicultural socialization beliefs directly or indirectly influence their child's psychological adjustment and well-being. More broadly, bicultural socialization has positive implications for immigrant youth and their development of adaptive skills (Cheah, 2016; Cheah & Leung, 2011; Zhang et al., 2018). Thus, parents' specific beliefs and goals around socializing their children to be bicultural may be similarly beneficial.

Examinations of parents' broader cultural experiences may provide insight on how bicultural socialization beliefs relate to child adjustment. Among a sample of families in urban United States that included immigrant families, parents' knowledge of United States history and popular culture was found to be related to lower levels of behavior difficulties in children, as was parents' maintenance of their heritage identity (Calzada et al., 2009). Bicultural orientation in parents was also found to be potentially protective against their child's internalizing behaviors (Calzada et al., 2009). In addition, some existing work has focused on how heritage and destination parenting socialization beliefs separately predict child adjustment in immigrant families. Specifically, parenting socialization beliefs promoting independence (e.g., encouraging the child to question about their surroundings) predicted lower levels of internalizing and externalizing



behavior problems among preschool-age children of Asian immigrant families (Huang et al., 2017). However, in the same study, there was some evidence that beliefs promoting respect (e.g., respecting authority) predicted higher levels of internalizing difficulties (Huang et al., 2017). Taken together, the existing literature suggests bicultural socialization beliefs may have a positive effect on youth adjustment in Chinese American families, although inconsistencies exist.

One manner in which parents' bicultural socialization beliefs could relate to youth adjustment is that the beliefs may be expressed through parenting behaviors that then have implications for youth's behavioral functioning (Cheah et al., 2009; Cheah et al., 2013). This hypothesis would be in line with influential models within the parenting literature that state parents' thought processes, goals, and values guide their parenting behaviors, and such parenting behaviors then have implications for child adjustment (Bornstein et al., 2018; Darling & Steinberg, 1993). Such a three-part developmental process has been demonstrated in both Western and Eastern (e.g., Chinese) samples (Bornstein et al., 2018; Li, Costanzo, & Putallaz, 2010). However, limited research exists demonstrating this full process within Chinese American/immigrant families, particularly in ways that capture the bicultural nature of their experiences. Some studies of Chinese American families have focused on mediational processes involving parent's cultural orientation (as it relates to their child's), parenting behaviors, and child outcomes (e.g., Kim et al., 2009; Kim et al., 2013a; Weaver & Kim, 2008). Similarly, parenting behaviors could potentially mediate the relation between bicultural socialization beliefs and youth outcomes in Chinese American families.

Before discussing more specific parenting processes in Chinese American parents, it is important to acknowledge the parenting literature's Western roots. Much of the broader literature on parental socialization, parenting behaviors, and child outcomes has historically focused on the constructs of parental control and parental warmth/responsiveness in Western cultures (Darling & Steinberg, 1993; Grusec, 2002). This literature stems from Baumrind's early work on parenting styles, in which parents who displayed appropriately high levels of warmth and control (i.e., authoritative parenting) had children who were better adjusted compared to children of parents with other parenting typologies (Baumrind, 1971). However, examinations of parenting styles outside of Western, European American samples have presented conflicting results, raising questions about the applicability of these parenting styles for parents from other cultural backgrounds, such as Chinese American parents (see Darling & Steinberg, 1993; Stewart & Bond, 2002 for review). Dimensional approaches to examining warmth and control in Asian American samples have also at times led to results that are difficult to interpret, and concerns have been raised about haphazardly utilizing dimensional measures normed on Western samples for Asian American families (see Kim & Wong, 2002 for review). Overall, these limitations must be considered when conducting and interpreting parenting research with ethnic minority and/or immigrant populations.

### **Implications of Bicultural Socialization Beliefs for Parenting Behaviors**

Parents' socialization goals encompass the abilities and qualities they wish for their child to develop, with such goals theorized to inform parenting practices and styles (see Darling & Steinberg, 1993 for review). Although primarily originating from studies of European American and Western families, theories of parental socialization and

behaviors have been applied to Chinese immigrant parents in ways that account for cultural context and culturally relevant parenting philosophies (Chao, 1995; Chao, 2000). In line with this previous work, Asian immigrant parents' bicultural socialization beliefs appear to have implications for their parenting behaviors (Cheah et al., 2013; Qin, 2008; Uttal & Han, 2011). For example, qualitative studies have suggested parents' bicultural and/or acculturated parenting beliefs are reflected through increased parental flexibility, inductive reasoning, and promotion of independence, as well as decreased pressure on the child (Cheah et al., 2013; Qin, 2008; Lee & Keown, 2018). Such findings are consistent with examinations of parent acculturation more broadly that have found parents' acculturation to Western culture to be positively related to traditionally Western parenting constructs such as inductive reasoning and democratic parenting (Kim et al., 2014).

On the surface, many of these parenting behaviors seem to reflect parents' incorporation of Western parenting socialization goals often associated with European American culture (e.g., independence), an important aspect of bicultural socialization. However, bicultural socialization beliefs emphasize the retention of heritage socialization goals and values as well. In the qualitative study by Cheah and colleagues (2013), Chinese immigrant mothers valued promoting their child's independence and autonomy while simultaneously valuing traditional ideas of interdependence within the family, which one mother described as "respecting the elderly and caring for the young" (pp. 35). Thus, in the context of bicultural socialization beliefs, parents' desire for the child to retain heritage values should also play an essential role in their parenting behaviors. Quantitative research is needed to supplement existing qualitative findings and provide

more clarity as to how bicultural socialization beliefs among Asian American/immigrant parents translate to parenting behaviors that promote bicultural competency in their children. Examinations may be particularly relevant during adolescence and emerging adulthood when differences between the values of the two cultures are increasingly salient to family members (Zhou et al., 2017).

Past quantitative research has taken a variable-centered approach to examining the implications of parents' heritage socialization beliefs and destination socialization beliefs for parenting behaviors separately. Among Chinese immigrant families, parents' Confucian-centered parenting goals predicted parents' reports of parenting behaviors and adolescents' reports of their parents' parenting behaviors, whereas parents' child-centered goals predicted only parents' reports of their parenting behaviors (Padmawidjaja & Chao, 2010). Specifically, parents' Confucian-centered goals were positively related to reports of parental control (e.g., strictness) and guan (a construct encompassing parental care and control that is viewed positively in Chinese culture; Chao, 1994), whereas parents' child-centered goals, such as those promoting independence and individuality, were positively related to reports of parental contingent autonomy (an aspect of guan) and warmth (Padmawidjaja & Chao, 2010). Thus, there exists some quantitative evidence that heritage and destination culture socialization goals have differing implications for immigrant parenting behaviors, pressing the importance of examining socialization beliefs that emphasize both in a bicultural sense.

### **Parenting Behaviors and Child Outcomes in Chinese American Families**

The relation between parents' behaviors and outcomes for their children has long been of central focus within the parenting literature. Building upon Baumrind's early

work in parenting styles and other influential parenting theories, multiple parenting behavior dimensions have been found to relate to more positive adjustment in children and adolescents in the United States, including warmth, responsiveness, and inductive reasoning (Dallaire et al., 2006; Ge et al., 1996). Naturally, dimensions such as parental hostility and psychological control are related to more negative child and adolescent adjustment (Frazer & Fite, 2015; Ge et al., 1996).

As stated earlier, there are limitations to utilizing Western parenting dimensions and measures in examining parenting processes in Asian American families (Kim & Wong, 2002). Nevertheless, extant research has established several Western parenting dimensions to have similar implications in Chinese American families as they do in other groups. For example, higher levels of parental warmth, inductive reasoning and monitoring appear to predict lower levels of adolescent depressive symptoms within Chinese American families (Kim et al., 2009; Kim & Ge, 2000; Weaver & Kim, 2009). Similarly, Kim and colleagues (2013b) created parenting typologies for Chinese American families utilizing multiple Western measures and related them to multiple indicators of adolescent/young adult adjustment. Results from their analyses suggested that, in addition to warmth, inductive reasoning, and monitoring, the supportive parenting dimension of democratic parenting also appeared to have positive implications for adolescent/young adult adjustment. Within these profiles, the unsupportive parenting dimensions of hostility, psychological control, and punitive parenting appeared to have negative implications for adjustment (Kim et al., 2013b; Kim et al., 2015).

### **Study 2 Aims**

The goal of Study 2 was to examine the relation between parents' bicultural socialization beliefs, parents' behaviors, and child outcomes among Chinese American families. To do so, study 2 focused on whether Chinese American mothers' and fathers' parenting behaviors mediated the relation between their bicultural socialization beliefs during their child's adolescence and the adjustment of their children in young adulthood. Parenting behaviors were operationalized in two ways: behaviors traditionally seen as supportive in the Western parenting literature and behaviors traditionally seen as unsupportive in the Western parenting literature. Supportive parenting behaviors consisted of parental warmth, inductive reasoning, and democratic parenting. The three constructs were selected based on existing qualitative literature on bicultural socialization beliefs in Chinese American families (Cheah et al., 2013; Qin, 2008; Uttal & Han, 2011) as well as through considering the developmental periods of interest. Unsupportive parenting behaviors consisted of punitive parenting, parental hostility, and psychological control. Young adult adjustment was conceptualized as depressive symptoms. For the current study, we also examined whether mother's and father's bicultural socialization beliefs mutually influenced each other's parenting behaviors, given their existence within couple and family systems.

It was hypothesized that supportive parenting behaviors would mediate the relation between bicultural socialization beliefs and young adult adjustment in that higher levels of bicultural socialization beliefs would predict higher levels of parents' supportive parenting behaviors, which would then predict lower levels of depressive symptoms. It was also hypothesized that unsupportive parenting behaviors would mediate the relation between bicultural socialization beliefs and young adult adjustment in that higher levels

of bicultural socialization beliefs would predict lower levels of unsupportive parenting behaviors, which would then predict lower levels of depressive symptoms. Although these hypotheses were informed by previous studies of parents' socialization goals and values, we acknowledged the relations may be complicated and less certain given existing literature on heritage and destination socialization cognitions (Padmawidjaja & Chao, 2010) as well as the paucity of quantitative literature on socialization beliefs that are uniquely bicultural. Lastly, we hypothesized that bicultural socialization beliefs in one parent would predict parenting behaviors in the other, leading to indirect effects across parents.

## **Study 2 Method**

### **Participants**

Participants in study 2 included mothers, fathers, and young adults from 379 families at Wave 2 and Wave 3 of the three-wave longitudinal study. These families were included because they had at least some available data on the key study variables at the appropriate time points.

### **Measures**

#### **Bicultural Socialization Beliefs**

Mothers' and fathers' bicultural socialization beliefs were measured at Wave 2 using a 3-item self-report scale. The scale was created by Dr. Su Yeong Kim for the purpose of the three-wave longitudinal study. (Kim & Hou, 2016). See Study 1 Method for more information about the Bicultural Socialization Beliefs scale.

#### **Supportive Parenting Behaviors**

Supportive parenting behaviors measured at Waves 2 included warmth, inductive reasoning, and democratic parenting. Mothers' and fathers' reports of their own parental warmth was measured at both waves using an 8-item scale adapted from the Iowa Youth and Families Project (Conger et al., 1989-1992; Conger et al., 1995; Ge et al., 1996). Parents were asked to consider their relationship with their child in the past month and indicate how often they displayed a specific behavior on a scale from 1 (never) to 7 (always). Example items on the parental warmth scale included "act loving, affectionate, and caring toward him/her" and "listen carefully to his/her point of view". Responses on the items were averaged together, with higher scores indicating higher levels of warmth. Internal consistencies for the parental warmth scales were  $\alpha = .92$  for mothers and  $\alpha = .93$  for fathers.

Mothers' and fathers' reports of their own inductive reasoning was measured using a 4-item scale adapted from the Iowa Youth and Families Project (Conger et al., 1989-1992; Conger et al., 1995; Ge et al., 1996). Parents responded to items on a scale from 1 (never) to 5 (always). Examples of items on the inductive reasoning scale included "do you give reasons to your child for your decisions" and "do you discipline your child by reasoning, explaining, or talking to him/her". Responses on the items were averaged together, with higher scores indicating higher levels of inductive reasoning. Internal consistencies for the parental inductive reasoning scales were  $\alpha = .85$  for both mothers and fathers.

Mothers' and fathers' reports of their own democratic parenting was measured using a 4-item scale adapted from the Parenting Practice Questionnaire (Robinson et al., 1995). Parents responded to each item on a scale from 1 (never) to 5 (always). Example



items on the democratic parenting scale include “I take my child’s desires into account before asking him/her to do something” and “I allow my child to give input into family rules”. Responses on the four items were averaged together, with higher scores indicating higher levels of democratic parenting behaviors. Internal consistencies for the democratic parenting scales were  $\alpha = .75$  for mothers and  $\alpha = .73$  for fathers.

### **Unsupportive Parenting Behaviors**

Unsupportive parenting behaviors measured at Waves 2 included parental hostility, punitive parenting, and psychological control. Mothers’ and fathers’ parental hostility was measured using a 7-item self-report scale adapted from the Iowa Youth and Families Project (Conger et al., 1989-1992; Conger et al., 1995; Ge et al., 1996). Parents were asked to consider their relationship with their child in the past month and indicate how often they displayed a specific behavior on a scale from 1 (never) to 7 (always). Examples of items on the parental hostility scale included “get angry at him/her”, “shout or yell at him/her because you were mad at him/her”, and “criticize him/her or his/her ideas”. Responses on the seven items were averaged together, with higher average scores indicating higher levels of hostility. Internal consistencies for the parental hostility scales were  $\alpha = .76$  for mothers and  $\alpha = .83$  for fathers.

Mothers’ and fathers’ punitive parenting behaviors were measured using a 4-item self-report scale adapted from the Parenting Practice Questionnaire (Robinson et al., 1995). Parents responded to items on a scale from 1 (never) to 5 (always). Examples of items on the punitive parenting scale included “I discipline my child first and ask questions later” and “I use threats as punishment with little or no explanation”. Responses on the items were averaged together, with higher average scores indicating higher levels

of punitive parenting behaviors. Internal consistencies for the punitive parenting scales were  $\alpha = .69$  for mothers and  $\alpha = .71$  for fathers.

Mothers' and fathers' psychological control was measured using an 8-item self-report scale adapted from the Psychological Control Scale – Youth Self Report (PCS-YSR; Barber, 1996) and the Children's Reports of Parental Behavior Inventory (CRPBI; Barber, 1996; Schaefer, 1965). For each item, parents were asked to consider how often they behaved in a certain way towards their child and respond with 1 (seldom), 2 (sometimes), or 3 (often). Examples of items on the scale included “change the subject whenever my child has something to say”, “interrupt my child”, and “I avoid looking at my child when I am disappointed in him/her”. Responses on items were average together, with higher average scores indicating higher levels of psychological control. Internal consistencies for the parental psychological control scales were  $\alpha = .72$  for mothers and  $\alpha = .75$  for fathers.

### **Young Adult Depressive Symptoms**

Depressive symptoms in the young adult children at Wave 3 was measured using the Center for Epidemiologic Studies of Depression Scale (CES-D; Radloff, 1977), a 20-item self-report measure of depressive symptoms. Participants were asked to consider their feelings and behaviors from the past week and respond to items on a 4-point scale from 0 (rarely or none of the time) to 3 (most or all of the time). Examples of items on the CES-D include “I felt sad”, “I enjoyed life” (reverse-scored), and “I did not feel like eating; my appetite was poor”. Appropriate items were reverse-scored, and responses were averaged, with higher average scores reflecting higher levels of depressive symptoms. Internal consistency was  $\alpha = .90$ .

## Analysis Plan

For Study 2, mediation was examined using structural equation modeling in MPlus 8 software (Muthén & Muthén, 1998-2017). Mother and father processes were modeled simultaneously, and there was interest in examining cross-parent effects. Thus, the study utilized two Actor-Partner Interdependence Mediation Models (APIMM; Fitzpatrick et al., 2016; Ledermann et al., 2011) with distinguishable dyads. One APIMM was created using supportive parenting behaviors as the mediator whereas the second used unsupportive parenting behaviors (see Figure 4 for conceptual model).

Parenting behaviors in the current study were modeled as latent variables. Thus, prior to the creation of the APIMMs, two measurement models were created to examine the validity of four latent variables: mother's supportive parenting behaviors, mother's unsupportive parenting behaviors, father's supportive parenting behaviors, and father's unsupportive parenting behaviors. One measurement model included the two supportive parenting latent variables whereas the other included the two unsupportive parenting latent variables. Three parenting measures were loaded on to each latent variable. For the supportive parenting latent variables, the three parenting measures were inductive reasoning, democratic parenting, and warmth. For the unsupportive parenting latent variables, the three parenting measures were parental hostility, psychological control, and punitive parenting. Within each model, residual variances of the two latent variables were correlated. In addition, residual variances for identical measures were also correlated across parents. Models were evaluated using the following fit statistics and criteria for acceptable fit: comparative fit index ( $CFI \geq .90$ ; Kline, 2016), root mean square error of approximation ( $RMSEA < .06$ ; Hu & Bentler, 1999), and standardized root mean square

residual (SRMR < .08; Hu & Bentler, 1999). All paths from the measurement models were retained in the subsequent APIMMs.

Following the examination of the measurement models, dyadic actor only mediation models were created. Young adults' depressive symptoms at Wave 3 was regressed on mother's parenting behaviors, father parenting behaviors, mother's bicultural socialization beliefs, and father's bicultural socialization beliefs. In addition, mothers' and fathers' parenting behaviors were regressed onto their respective bicultural socialization beliefs. Residual variances for the two parenting behavior latent variables were correlated, as were the two bicultural socialization beliefs variables, in order to account for mother-father dependency. Indirect effects were estimated using the MODEL INDIRECT command in MPlus (Muthén & Muthén, 1998-2017). Confidence intervals (CI) and standard errors for the indirect effect estimates were generated using the bias-corrected bootstrap method with 10,000 samples (MacKinnon et al., 2004; Muthén & Muthén, 1998-2017).

Finally, full APIMMs were created in which mothers' parenting behaviors were additionally regressed on fathers' bicultural socialization beliefs and fathers' parenting behaviors were additionally regressed on mothers' bicultural socialization beliefs. Specific indirect effects and sums of indirect effects (including actor-only and actor-partner paths) were examined. As with the actor-only models, CIs and standard errors were generated for the indirect effects using the bias-corrected bootstrap method with 10,000 samples (MacKinnon et al., 2004; Muthén & Muthén, 1998-2007).

## **Study 2 Results**

### **Preliminary Analyses**

Preliminary bivariate correlations are presented in Table 6. Of note, mother's bicultural socialization beliefs was positively correlated with mother's warmth ( $r = .17, p = .003$ ), democratic parenting ( $r = .16, p = .006$ ) and psychological control ( $r = .16, p = .006$ ) and was marginally correlated with mother's hostility ( $r = .11, p = .052$ ). There were no significant correlations between young adult depressive symptoms and either mother's bicultural socialization beliefs or any of the mother parenting variables. Father's bicultural socialization beliefs was positively correlated with father's democratic parenting ( $r = .12, p = .047$ ) and inductive reasoning ( $r = .14, p = .019$ ) and was marginally related to father's warmth ( $r = .11, p = .061$ ) and psychological control ( $r = .12, p = .055$ ). There were no significant correlations between young adult depressive symptoms and either father's bicultural socialization beliefs or any of the father parenting variables. In terms of partner effects, mother's bicultural socialization beliefs were not significantly correlated with any of the father parenting variables. Father's bicultural socialization beliefs were significantly positively correlated with mother's warmth ( $r = .15, p = .017$ ) and marginally related with mother's punitive parenting ( $r = -.12, p = .058$ ). Contemporary understandings of mediation indicate that significant relations between variables are not necessary for the testing or presence of indirect effects (Hayes, 2009; Kline, 2015). Thus, analyses continued with the creation of the measurement models and APIMMs.

## **Primary Analyses**

### **Supportive Parenting Behaviors**

#### **Measurement Model**

The measurement model for supportive parenting behaviors was found to be a good fit for the data ( $\chi^2(5) = 4.14, p = .529$ ; RMSEA = .000, [.000, .070]; CFI = 1.00; SRMR=.023). Factor loadings and residuals are presented in Table 7. Factor variances, covariances, and error covariances are presented in Table 8. All indicators loaded significantly onto their respective latent factors.

### **Actor-Only Model**

Direct effects from the actor-only model with supportive parenting behaviors as mediator are presented in Figure 5. Within the model, the path from mother's bicultural socialization beliefs to mother's supportive parenting behaviors was positive and significant ( $b = .19, SE = .071, p = .007$ ). The path from father's bicultural socialization beliefs to father's supportive parenting behaviors was also positive and significant ( $b = .17, SE = .082, p = .037$ ). There were no significant direct effects of bicultural socialization beliefs or supportive parenting behaviors on young adult depressive symptoms.

Mediation results of the actor-only model with supportive parenting behaviors as mediator are presented in Table 9. The indirect effect from mother's bicultural socialization beliefs to adolescent depressive symptoms was not significant (estimate = -.021, 95% CI [-.072, .007]). Similarly, the indirect effect from father's bicultural socialization beliefs to young adult depressive symptoms was also not significant (estimate = .016, 95% CI [-.002, .055]).

### **Actor-Partner Model**

Direct effects from the actor-partner model with supportive parenting behaviors as mediator are presented in Figure 6. When partner effects were introduced into the model,

there was no longer a significant direct effect of mother's bicultural socialization beliefs on mother's parenting behaviors. However, there was still a direct effect of father's bicultural socialization beliefs on father's parenting behaviors ( $b = .24, SE = .095, p = .011$ ). There were no significant partner effects from one parent's bicultural socialization beliefs to another parents' parenting behaviors.

Mediation results of the actor-partner model with supportive parenting behaviors as mediator are presented in Table 9. The sum of indirect effects from mother's bicultural socialization beliefs to young adult depressive symptoms was non-significant (estimate =  $-.027, 95\% CI [-.080, .006]$ ). No specific indirect effects were significant. Likewise, the sum of indirect effects from father's bicultural socialization beliefs to young adult depressive symptoms was non-significant (estimate =  $.016, 95\% CI [-.009, .058]$ ), and there were no significant specific indirect effects.

## **Unsupportive Parenting Behaviors**

### **Measurement Model**

The measurement model for unsupportive parenting behaviors was found to be a good fit for the data ( $\chi^2(5) = 1.298, p = .935; RMSEA = .000, [.000, .020]; CFI = 1.00; SRMR = .011$ ). Factor loadings and residuals are presented in Table 10. Factor variances, covariances, and error covariances are presented in Table 11. All indicators loaded significantly onto their respective latent factors.

### **Actor-Only Model**

Direct effects from the actor-only model with unsupportive parenting behaviors as mediator are presented in Figure 7. Within the model, the path from mother's bicultural socialization beliefs to mother's unsupportive parenting behaviors was positive and

significant ( $b = .14$ ,  $SE = .060$ ,  $p = .018$ ). There was no direct effect of father's bicultural socialization beliefs on father's unsupportive parenting. In addition, there were no significant direct effects of bicultural socialization beliefs or unsupportive parenting behaviors on adolescent depressive symptoms.

Mediation results of the actor-only model with unsupportive parenting behaviors as mediator are presented in Table 12. The indirect effect from mother's bicultural socialization beliefs to adolescent depressive symptoms was not significant (estimate = .019, 95% CI [-.002, .064]). Similarly, the indirect effect from father's bicultural socialization beliefs to adolescent depressive symptoms was also not significant (estimate = -.003, 95% CI [-.032, .012]).

### **Actor-Partner Model**

Direct effects from the actor-partner model with unsupportive parenting behaviors as mediator is presented in Figure 8. When partner effects were introduced, the path from mother's bicultural socialization beliefs to mother's unsupportive parenting behaviors remained positive and significant ( $b = .18$ ,  $SE = .064$ ,  $p = .004$ ). The path from father's bicultural socialization beliefs to father's unsupportive parenting remained non-significant. Concerning partner effects, father's bicultural socialization beliefs was negatively and significantly related to mother's unsupportive parenting ( $b = -.14$ ,  $SE = .064$ ,  $p = .025$ ).

Mediation results of the actor-partner model with unsupportive parenting behaviors as mediator are presented in Table 12. The sum of indirect effects from mother's bicultural socialization beliefs to young adult depressive symptoms was non-significant (estimate = .025, 95% CI [-.007, .082]). No specific indirect effects were



significant. Likewise, the sum of indirect effects from father's bicultural socialization beliefs to young adult depressive symptoms was non-significant (estimate =  $-.021$ , 95% CI [ $-.071, .011$ ]), and there were no significant specific indirect effects.

### **Study 2 Discussion**

Consistent with our hypotheses, mother's and father's bicultural socialization beliefs were positively related to their supportive parenting behaviors. The results quantitatively validate findings from interviews with Asian parents in Western countries focused on the acculturation of their parenting processes and their bicultural values (Cheah et al., 2013; Qin, 2008; Lee & Keown, 2018). More broadly, findings align with theories on how parents' behaviors are informed by their socialization goals (Darling & Steinberg, 1993). Overall, these results suggest that bicultural socialization beliefs may be an adaptive part of Chinese American parents' acculturative experience.

In contrast to our hypotheses, bicultural socialization beliefs were also positively related to reports of unsupportive parenting behaviors within mothers. According to a bidimensional framework of acculturation, this result could be driven by the aspect of bicultural socialization beliefs involved with heritage socialization beliefs, as heritage socialization beliefs within Asian immigrant families may relate to negative adjustment in young children (Huang et al., 2017). However, it is important to note that retention of heritage orientation within Chinese American parents is not consistently related to parenting behaviors seen as unsupportive in the Western literature (Kim et al., 2014; Yu et al., 2016). The positive relation could also be explained by limitations in applying Western parenting measures and constructs to Chinese American families. For example, for Chinese American parents, it is possible that unsupportive parenting measures (e.g.,

psychological control, punitive parenting) tap into aspects of monitoring, firm control, and guan that are closely tied to Chinese socialization practices and are both culturally valued and in some ways adaptive (Chao, 2000; Kim & Wong, 2002; Padmawidjaja & Chao, 2010). Furthermore, the positive association with both supportive and unsupportive parenting behaviors could be consistent with a tri-dimensional model of acculturation in which Chinese American parenting is distinct from both Western and Eastern parenting styles. Specifically, “Tiger Parenting” has been considered a uniquely Chinese American style of parenting that includes behaviors promoting independence in addition to strict parental control (Kim & Hou, 2016; Kim et al., 2013b). Bicultural socialization beliefs in Chinese American parents are related to their Chinese American orientation more strongly than their Chinese orientation, American orientations, and the interaction between the two, supporting the notion that results from the current study reflect a distinctly Chinese American pattern of parenting behaviors (Kim & Hou, 2016). However, more research would be needed before a connection between bicultural socialization beliefs and parenting styles such as “Tiger Parenting” can be drawn.

In the current study, no mediating effect of either supportive or unsupportive parenting behaviors was found in the relation between parent’s bicultural socialization beliefs during adolescence and depressive symptoms in young adulthood. Furthermore, there was no evidence found for a direct effect of bicultural socialization beliefs on later young adult depressive symptoms through either preliminary correlations or the mediation models. The lack of direct relation could be attributed to a general challenge in identifying longitudinal connections between parent’s cognitions and their child’s outcomes, as even relations between parent’s cognitions and their own behaviors are not

consistently found or straightforward (Bornstein et al., 2018; Lansford & Deater-Deckard, 2012, Okagaki & Bingham, 2005). One might also hypothesize the lack of effects to be due to changes in co-residence; however, 89.5% of young adults at Wave 3 reported living with at least one birth parent. Nevertheless, lack of findings could still be attributed to the levels of autonomy and importance of experiences outside of the family (e.g., romantic relationships, work) that are characteristic of the transition to emerging adulthood (Arnett, 2006; Arnett, 2007a). Parenting processes continue to play an important role in Chinese American emerging adults' well-being (Kim et al., 2013b). Nonetheless, stressors related to work and romantic relationships also influence the psychological adjustment of emerging adults within the Western literature (Chow & Ruhl, 2014; Seiffge-Krenke & Luyckx, 2014; Wiesner et al., 2005). In addition, compared to adolescents who are often socialized within the structured settings of family and school, emerging adults have more freedom in choosing the opportunities and setting in which they are socialized (Arnett, 2007a; Arnett, 2007b). The variety of influential experiences and socializing agents during this developmental period, as well as the heterogeneity in how much emerging adults engage with different socializing agents, may make it difficult to detect any effect from parent's socialization goals four years earlier (Arnett, 2007a; Arnett, 2007b).

There was also a lack of any direct effects from parenting behaviors in adolescence to young adult depressive symptoms. While surprising, the lack of findings could be attributed to the same factors discussed in the relation between bicultural socialization beliefs and young adult adjustment; that is, that parenting behaviors may become less influential in predicting depressive symptoms in emerging adulthood due to

more varied socialization and stressful experiences in that developmental period. In addition, the lack of findings could be attributed to the use of parents' reports of parenting behaviors. Discrepancies exist between parent and child reports of parent's behaviors, and Chinese American families are no exception (Kim et al., 2013b; Russell et al., 2016). In addition, youth's reports of parenting are typically more predictive of outcomes than that of parents (e.g., Abar et al., 2015). Taken together, any longitudinal relation between parent's reports of behaviors and young adult's reports of outcome may have been difficult to identify. Nonetheless, parents' reports of their behaviors were previously cross-sectionally related to adolescents' and young adults' reports of their own depressive symptoms within the current sample, indicating that the parenting measures utilized hold significant merit (Kim et al., 2013b).

Across mediation models, there were some instances of differences in parenting processes across mothers and fathers, as indicated by significance of coefficients. Most pronounced was the positive significant path from bicultural socialization beliefs to unsupportive parenting behaviors that was consistently present in only mothers. Interestingly, the one partner effect present in the study was a negative relation between father's bicultural socialization beliefs and mother's unsupportive parenting behaviors that ran counter to the mother effect. Findings reflect the continued importance of separately but simultaneously examining mother and father processes in studies of heterosexual-parent families. There were multiple other effects that ran in opposite directions for mothers and fathers (e.g., direct paths from parenting behaviors to young adult depressive symptoms, indirect paths from beliefs to young adult depressive

symptoms); however, they were all nonsignificant, complicating any potential interpretation of these patterns.

### **Future Research**

Given the lack of findings involving young adults' reports of depressive symptoms, future work may benefit from considering outcomes more proximal to the parenting processes of interest. For example, there may be parent-child relational and interaction outcomes that could better speak to the socialization processes within Chinese American families. Future work could also build upon the current findings linking bicultural socialization beliefs to parenting behaviors. Specifically of interest would be how bicultural socialization beliefs relate to parenting profiles that are distinctly Chinese American or parenting constructs that are rooted in Chinese culture (Chao, 1994; Kim et al., 2013b). Furthermore, future studies could explore alternate pathways from bicultural socialization beliefs to young adult outcomes. For example, parent's beliefs may contribute to their child developing a bicultural orientation, which itself has positive implications for adjustment and social functioning (Choi et al., 2018; Kim & Hou, 2016; Nguyen & Benet-Martinez, 2013). Lastly it is possible that the relation between parent's bicultural socialization beliefs and young adult outcomes could not be identified because it depends on certain parent-level or family-level variables. In re-examining this relation, future work should carefully consider what factors may influence parents' ability to enact their bicultural socialization beliefs as well as what factors inform their motivation for wanting their children to be bicultural.

## CHAPTER 4

### STUDY 3: BICULTURAL SOCIALIZATION BELIEFS

#### AND INTERGENERATIONAL/ACCULTURATIVE FAMILY CONFLICT

##### Study 3 Literature Review

Immigrant families in the United States, including Asian immigrant families, may experience parent-child conflict stemming from their culturally pluralistic environments. Such conflicts are related to acculturative differences between parent and child that are further compounded by the already existing intergenerational differences evident also in non-immigrant populations (see Zhou et al., 2017 for review). Extant research on immigrant parent's bicultural beliefs has suggested adoption of bicultural beliefs coincides with parent-child conflict and disagreements (Lieber et al., 2004; Qin, 2008). For example, in a qualitative study by Lieber and colleagues (2004), conflicts between Chinese immigrant parents and their more acculturated adolescent children led to parents trying to explore and evaluate both U.S. culture and their own heritage-culture values when managing their parental approaches. Such flexibility in parenting attitudes in the face of disagreements was also reported by Qin (2008), in which parents of adolescents reported altering their more traditional Chinese parenting practices following conflicts, such as in their level of control. The above examples suggest parents' bicultural socialization beliefs are "reactive" in that they at least partially develop in response to acknowledged intergenerational/acculturative differences and/or conflict between themselves and their children (Qin, 2008; Lieber et al., 2004). To further illustrate, when confronted with such conflict, parents may change some of their previously held parenting beliefs and practices and treat their child's more acculturated values and

choices with respect (Qin, 2008). Such changes may represent parents' acknowledgement that past parenting strategies were no longer as effective (Qin, 2008). In the study by Qin (2008), Chinese immigrant parents who displayed this sort of flexibility still kept a "Confucian discourse at home" in describing their expectations, suggesting a bicultural nature to their overall parenting beliefs and/or practices (pp. 31).

Similarly, in their qualitative study of Taiwanese immigrant mothers with 3–6-year-old children, Cheah and colleagues (2013) noted that many themes they had identified that were related to bicultural socialization beliefs matched the sources of family conflict seen in examinations of Chinese immigrant families with adolescent children. For example, many mothers had positive views about the emphasis on academic achievement seen in Chinese parenting; however, some also reported decreasing this amount of emphasis after immigrating to the United States and/or focusing more on other developmental outcomes (e.g., self-esteem) for their children. From this observation, the authors concluded that the parents were "already struggling with these issues early on" (pp. 13). However, it is unclear from the study how much of this struggle is attributed to parents already seeing conflicts between themselves and their young children, and how much is more anticipatory and/or driven by Western socializing agents in their environment.

In one of the few studies to quantitatively examine bicultural parenting cognitions together with family conflict among Asian immigrant families, Kiang et al. (2017) examined the role of heritage culture, bicultural, and mainstream American culture parenting self-efficacy (PSE) as related to family conflict and parenting competence. Higher levels of conflict were related to lower levels of parent's reports of their parenting

competence, with parents' heritage culture PSE moderating this relation. Specifically, the relation was more negative in the context of low heritage culture self-efficacy. Bicultural parenting self-efficacy was not found to be significantly related to conflict among Asian immigrant families, although there was a positive and small/moderate correlation between the two constructs ( $r=.25$ ;  $n=58$ ). Correlations for heritage PSE and American PSE were similarly positive and non-significant ( $r=.11$  and  $r=.21$  respectively). These bivariate correlations suggest that parent's bicultural parenting cognitions might be related to family conflict; however, the focus on parenting self-efficacy as opposed to socialization beliefs limits the application of these results to the current study.

Qualitative and clinical literature suggests that Chinese immigrant parents' bicultural beliefs and related parenting constructs might also be protective against intergenerational/ acculturative family conflict. For example, Qin (2008) described one Chinese mother who acknowledged the importance of supporting her child's autonomy, which reduced the possibility of parent-child conflict. In addition, Chinese immigrant parents with bicultural socialization beliefs have reported adopting more approaches to parenting that they associate with United States culture, being less restrictive in their parenting, and placing less emphasis on academic achievement (Cheah et al., 2013). Such behaviors contrast with commonly cited sources of conflict among immigrant families (Lee et al., 2000). Furthermore, research on culturally grounded interventions for family conflict and relationships in immigrant families have focused on promoting bicultural parenting knowledge and beliefs. For example, the Strengthening Intergenerational/Intercultural Ties in Immigrant Families intervention for Asian immigrant families (Ying, 1999; 2009) seeks to help parents understand differences



between mainstream American/European American and heritage cultures, differences between their and their child's values, and how mainstream American/European American culture influences the development of their child. Similarly, Szapocznik and colleagues (1986) encourage parents to "accept and understand the value of certain aspects of the American culture represented by their children" as part of their Bicultural Effectiveness Training for Cuban American families (pp. 310). Overall, research is needed to determine the relation between bicultural socialization beliefs and intergenerational/acculturative family conflict, as the adoption of bicultural socialization beliefs is a natural acculturating process among immigrant parents, and family conflict, while present in many families, has negative implications for well-being (e.g., Zhou et al., 2017). In particular, determining the nature and direction of this relation in adolescence and emerging adulthood would be important given the increase in overall autonomy seeking and intergenerational/acculturative differences seen in these developmental periods (Qin, 2008, Lee et al., 2000; Zhou et al., 2017).

### **Study 3 Aims**

The goal of Study 3 was to determine the concurrent and predictive relations between Chinese American parents' bicultural socialization beliefs and intergenerational/acculturative family conflict within their families. Focus was placed on adolescence and emerging adulthood given the significance of conflict in these developmental periods (Zhou et al., 2017). Specifically, Study 3 examined whether parents' bicultural socialization beliefs in adolescence predicted level of family conflict in emerging adulthood, whether family conflict in adolescence predicted bicultural socialization

beliefs in emerging adulthood, and whether the two constructs were related within the two developmental periods.

Extant literature presents a potentially mixed picture in how these two constructs may relate. To begin, interviews with Chinese immigrant parents suggest that more bicultural socialization beliefs in parents may develop in reaction to conflict with their children, indicating a positive relation from family conflict to later beliefs (Lieber et al., 2004; Qin, 2008). However, bicultural socialization beliefs were found to be predictive of unsupportive parenting behaviors (i.e., hostility, punitive parenting, and psychological control) in Study 2, suggesting bicultural socialization beliefs could contribute to family interactions that promote conflict. In contrast to both these hypotheses, adoption of bicultural socialization beliefs could be protective against conflict, based on theories in the clinical literature (e.g., Ying, 2009). Thus, higher levels of beliefs could predict lower levels of later conflict. Overall, it was hypothesized that bicultural socialization beliefs and family conflict would be significantly related both concurrently and over time, although multiple legitimate possibilities for the nature and direction of the effect exist. Regardless of remaining ambiguities from the current study, establishing the relations between these variables would be beneficial for future follow-up analyses.

Studies involving intergenerational/acculturative family conflict in immigrant populations have traditionally utilized adolescents' and young adults' reports of conflict as opposed to reports from parents (Lui & Rollock, 2019). However, previous qualitative interviews with parents suggest the potential importance of capturing parent's own perceptions of level of conflict with his or her child in understanding the role of bicultural socialization beliefs (Qin, 2008). Thus, the current study examined the proposed research

questions first using solely parents' reports of family conflict and then using solely young adults' reports of family conflict.

### **Study 3 Method**

#### **Participants**

Participants in Study 3 included mothers, fathers, and young adults from Wave 2 and Wave 3 of the three-wave longitudinal study. Data were available from 376 families when utilizing parents' reports of family conflict and 385 families when utilizing adolescents' reports of family conflict.

#### **Measures**

##### **Bicultural Socialization Beliefs**

Mothers' and fathers' bicultural socialization beliefs were measured at Wave 2 and Wave 3 using a 3-item self-report scale. The scale was created by Dr. Su Yeong Kim for the purpose of the three-wave longitudinal study. (Kim & Hou, 2016). See Study 1 Method for more information about the Bicultural Socialization Beliefs scale. Items for the scale at Wave 3 were identical to items at Wave 2. At Wave 2, internal consistencies on the bicultural socialization beliefs scale were  $\alpha = .77$  for mothers and  $\alpha = .82$  for fathers. At Wave 3, internal consistencies were  $\alpha = .79$  for mothers and  $\alpha = .80$  for fathers.

##### **Family Conflict**

Intergenerational/acculturative family conflict at Waves 2 and 3 was measured using the Asian American Family Conflict Scale (FCS; Lee et al., 2000). The FCS is a ten-item self-report scale originally developed to be completed by adolescents and young adults. Each item on the scale describes a situation commonly cited to reflect

intergenerational/acculturative family conflict within Asian American families. Respondents are asked to indicate how likely each situation was to occur between themselves and their parents on a scale from 1 (almost never) to 5 (almost always). Items on the scale include “Your parent tells you what to do with your life, but you want to make your own decision” and “Your parent always compares you to others, but you want them to accept you for being yourself”. The current study utilized the original adolescent/young adult-report version of the scale as well as a version adapted to be completed by mothers and fathers. Items were changed to reflect likelihood of intergenerational/acculturative conflict from the parent’s point of view (e.g., “I tell my child what to do with her/his life, but s/he wants to make her/his own decisions”; “I always compare my child to others, but s/he wants me to accept her/him for being her/himself”). For all versions of the scale, family conflict was measured at the parent-child dyad level. That is, an adolescent/young adult responded to items in regard to conflict with their mother and father separately, and parents responded to items in regard to conflict between herself/himself and her/his child. Responses on items within each scale were averaged together, and higher average scores indicated higher reported likelihood of intergenerational/acculturative family conflict occurring between a parent and her/his child. Across reports and waves, internal consistencies on the Asian American Family Conflict Scale ranged from  $\alpha = .84$  to  $\alpha = .91$ .

### **Analysis Plan**

Examination of the nature and direction of the relation between parents’ bicultural socialization beliefs and intergenerational/acculturative family conflict involved creation of cross-lagged panel models (see Figure 9 for conceptual model). Cross-lagged panel

models for mother-adolescent and father-adolescent dyads were modeled simultaneously, and residual variances of identical variables across mothers and fathers were correlated to account for mother-father dependency. Residual variances of variables within each time-point were also correlated within each dyad.

As a first step, stability paths from Wave 2 variables to Wave 3 variables were specified as part of an autoregressive model. Following this, all cross-paths were introduced. Directions of effect were determined through examining significant of the regression coefficients for the cross-paths. Finally, to test significance of difference between mother-adolescent and father-adolescent dyads, the cross-lagged panel models were compared to models in which appropriate paths were constrained to the same magnitude. Comparisons between models were made using chi-square difference test, with significant increases in chi-square from a base model to a constrained model indicating that the paths were not equal.

### **Study 3 Results**

Bivariate correlations for variables used in Study 3 are reported in Table 13.

#### **Parent-report of Family Conflict Model**

##### **Preliminary Analyses**

Preliminary correlations suggested stability in bicultural socialization beliefs from Wave 2 to Wave 3 for both mothers ( $r = .40, p < .001$ ) and fathers ( $r = .47, p < .001$ ). Family conflict was also stable from Wave 2 to Wave 3 for both mothers ( $r = .46, p < .001$ ) and fathers ( $r = .49, p < .001$ ). For mothers, bicultural socialization beliefs were significantly related to mother's reports of family conflict both within Wave 2 ( $r = .321, p < .001$ ) and Wave 3 ( $r = .303, p < .001$ ). Likewise, father's bicultural socialization

beliefs were significantly related to father's reports of family conflict within Wave 2 ( $r = .191, p = .002$ ) and Wave 3 ( $r = .237, p < .001$ ). In terms of relations across waves, mother's bicultural socialization beliefs at Wave 2 were correlated with mother's reports of family conflict at Wave 3 ( $r = .168, p = .010$ ). In addition, mother's reports of family conflict at Wave 2 were correlated with mother's bicultural socialization beliefs at Wave 3 ( $r = .334, p < .001$ ). Similar results were seen for fathers, with father's bicultural socialization beliefs at Wave 2 related to father's reports of family conflict at Wave 3 ( $r = .179, p = .009$ ) and father's reports of family conflict at Wave 2 related to father's bicultural socialization beliefs at Wave 3 ( $r = .205, p = .003$ ).

### **Primary Analyses**

Complete fit-statistics for the parent-report models are presented in Table 14. Results from parent-report autoregressive, cross-lag model, and constrained models are presented in Tables 15 and 16.

### **Testing Cross-Lag Effects**

Within the autoregressive model, mother's bicultural socialization beliefs and reports of family conflict were stable from Wave 2 to Wave 3. Father's bicultural socialization beliefs and reports of family conflict were also stable from Wave 2 to Wave 3. Bicultural socialization beliefs and family conflict were significantly and positively related within each wave for both mothers and fathers.

See Figure 10 for standardized results from the full parent-report cross-lag model. Autoregressive paths for mother's and father's bicultural socialization beliefs and reports of family conflict remained stable when cross-paths were introduced in the cross-lag model. In addition, all associations between bicultural socialization beliefs and family

conflict within waves were positive and significant, with the exception of father's bicultural socialization beliefs and father's reports of family conflict at Wave 3, which was marginal ( $b = .044$ ,  $SE = .025$ ,  $p = .083$ ). Concerning cross-lag paths, mother's reports of family conflict at Wave 2 positively and significantly predicted mother's bicultural socialization beliefs at Wave 3 ( $b = .20$ ,  $SE = .061$ ,  $p = .001$ ). In contrast, mother's bicultural socialization beliefs at Wave 2 were not significantly related to mother's reports of family conflict at Wave 3 ( $b = -.043$ ,  $SE = .055$ ,  $p = .436$ ). Within fathers, reports of family conflict at Wave 2 positively and significantly predicted bicultural socialization beliefs at Wave 3 ( $b = .17$ ,  $SE = .055$ ,  $p = .002$ ). The path from father's bicultural socialization beliefs at Wave 2 to father's reports of family conflict at Wave 3 was marginal ( $b = .11$ ,  $SE = .057$ ,  $p = .054$ ).

### **Testing Mother-Father Differences**

In order to examine differences across mothers and fathers, two constrained models were created. In the first constrained model, paths from reports of family conflict at Wave 2 to bicultural socialization beliefs at Wave 3 were constrained to be equal across parents. In the second constrained model, paths from bicultural socialization beliefs at Wave 2 to reports of family conflict at Wave 3 were constrained to be equal across parents. Equality of paths across parents were examined through conducting chi-square difference tests between each model and the freely estimated cross-lag model.

In the first model, paths from reports of family conflict at Wave 2 to bicultural socialization beliefs at Wave 3 were constrained to be equal across parents. Results from a chi-square difference test indicated that the models were not significantly different; thus, there was no evidence to suggest that the path for mothers was significantly

different from the path for fathers. The constrained path indicated that, across mothers and fathers, reports of family conflict at Wave 2 positively and significantly predicted bicultural socialization beliefs at Wave 3 ( $b = .18, SE = .043, p < .001$ ). In the second model, paths from bicultural socialization beliefs at Wave 2 to reports of family conflict at Wave 3 were constrained to be equal across parents. Results from a chi-square difference test indicated that there was a significant difference between model fit between the second model and the freely estimated model. Thus, there was evidence to suggest that the paths from bicultural socialization beliefs to later reports of family conflict were significantly different between mothers and fathers, and the constrained model was rejected.

### **Adolescent-report of Family Conflict Model**

#### **Preliminary Analyses**

Preliminary correlations suggested stability in adolescent's reports of family conflict with both mother ( $r = .53, p < .001$ ) and father ( $r = .50, p < .001$ ) across waves. Mother's bicultural socialization beliefs were marginally related to adolescent's reports of conflict with his/her mother within Wave 2 ( $r = .11, p = .057$ ), whereas the two constructs were significantly related within Wave 3 ( $r = .15, p = .010$ ). Correlations were similar among father-adolescent dyads, with bicultural socialization beliefs being marginally related to adolescent's reports of conflict within Wave 2 ( $r = .12, p = .054$ ) and significantly related within Wave 3 ( $r = .17, p = .006$ ). Across waves, mother's bicultural socialization beliefs at Wave 2 were not significantly related with adolescent's reports of conflict with her/his mother at Wave 3 ( $r = .09, p = .18$ ). However, adolescents' reports of conflict with her/his mother at Wave 2 was significantly related



with mother's bicultural socialization beliefs at Wave 3 ( $r = .20, p = .001$ ). Among father-adolescent dyads, father's bicultural socialization beliefs at Wave 2 were significantly related with adolescent's reports of conflict with her/his father at Wave 3 ( $r = .13, p = .048$ ), whereas adolescent's reports of conflict with her/his father was not related to father's bicultural socialization beliefs at Wave 3 ( $r = .09, p = .18$ ).

### **Primary Analyses**

Complete fit-statistics for the adolescent-report models are presented in Table 17. Results from adolescent-report autoregressive, cross-lag model, and constrained models are presented in Tables 18 and 19.

### **Testing Cross-Lag Effects**

Within the autoregressive model, all variables were stable from Wave 2 to Wave 3. Within both mother-adolescent and father-adolescent dyads, there were no significant relations between parent's bicultural socialization beliefs and adolescent's reports of conflict with her/his respective parent at either Wave 2 or Wave 3. However, the relations were marginal for mother-adolescent dyads at Wave 2 ( $b = .060, SE = .035, p = .087$ ) and for father-adolescent dyads at Wave 2 ( $b = .063, SE = .037, p = .093$ ).

See Figure 11 for standardized results from the full adolescent-report cross-lag model. Autoregressive paths for mother's and father's bicultural socialization beliefs and adolescents' reports of family conflict with her/his mother and father remained stable from Wave 2 to Wave 3 when cross-lag paths were introduced. Within mother-adolescent and father-adolescent dyads, there were no significant relations between parent's bicultural socialization beliefs and adolescent's reports of conflict with her/his mother or father within either Wave 2 or Wave 3. However, the relation at Wave 2 within mother-

adolescent dyads was marginal ( $b = .058, SE = .035, p = .098$ ). Concerning cross-lag paths, adolescent's reports of conflict with her/his mother at Wave 2 significantly and positively predicted mother's bicultural socialization beliefs at Wave 3 ( $b = .097, SE = .045, p = .030$ ). No other cross-lag paths were significant.

### **Testing Mother-Father Differences**

As with the parent-report cross-lag model, two constrained adolescent-report cross-lag models were created in order to test for differences across mothers and fathers. In the first model, paths from adolescent's reports of conflict at Wave 2 to parent's bicultural socialization beliefs at Wave 3 were constrained to be equal across parents. In the second model, paths from parent's bicultural socialization beliefs at Wave 2 to adolescent's reports of conflict at Wave 3 were constrained to be equal across parents. Equality of paths were once again examined through chi-square difference tests between each constrained model and the freely estimated cross-lag model.

The first constrained model, in which paths from conflict at Wave 2 to bicultural beliefs at Wave 3 were constrained, was not significantly different from the freely estimated model in terms of model fit. Thus, there was no evidence to suggest that the paths were different between parents. Within the constrained model, higher levels of adolescent's reports of conflict at Wave 2 predicted higher levels of bicultural socialization beliefs at Wave 3 across both mother-adolescent and father-adolescent dyads ( $b = .071, SE = .034, p = .038$ ). Similarly, the second constrained model, in which paths from bicultural socialization beliefs at Wave 2 to adolescent's reports of conflict at Wave 3 were constrained, was also not significantly different from the freely estimated model. Thus, there was no evidence to suggest that the paths were different between

parents. Results from that model indicated no significant predictive effect of bicultural socialization beliefs on later reports of family conflict, across mother-adolescent and father-adolescent dyads.

### **Study 3 Discussion**

Across models utilizing parent's reports of family conflict and models utilizing adolescent's reports of family conflict, there was consistent evidence for higher levels of family conflict during late adolescence predicting Chinese American parents adopting higher levels of bicultural socialization beliefs for their children during young adulthood. This relation across time was found more consistently across study models than even concurrent relations between conflict and bicultural socialization beliefs. Such findings are consistent with qualitative literature on Chinese immigrant families in which parents described responding to intergenerational/acculturative conflict through evaluating heritage and destination cultural values and being more flexible in their socialization goals for their children (Lieber et al., 2004; Qin, 2008). In fact, item three of the bicultural socialization beliefs scale ("Even though I would like my child to follow the Chinese way of doing things, I know s/he should follow some American ways to ensure a good future in America") appears to directly reflect this reactive process. Thus, results suggest mothers and fathers in the current study demonstrated themselves as being resilient and adaptive in their roles as parents within a challenging, culturally pluralistic society. Lastly, findings support the notion of Chinese American parent's parenting cognitions being amenable to their experiences within different systems (Bronfenbrenner, 1992/2005; Darling, 2007.)

Intergenerational/acculturative family conflict has consistently been found to have negative implications for adjustment in youth (Juang et al., 2018, Lui, 2015). Thus, both family and individual interventions focused on reducing family conflict and its downstream negative effects are essential (Zhou et al., 2017). However, family conflict around intergenerational and acculturative differences are present in many ethnic-minority and immigrant families, and results from the current study suggest that parents are able to take such conflict and use it for positive growth as parents. As part of parent-focused interventions for reducing conflict, practitioners could support parents in actively reflecting on high levels of conflict with their children in ways that promote beneficial socialization beliefs and values. Such practices would be consistent with existing culturally grounded interventions (e.g., Ying, 2009). Although parent's bicultural socialization beliefs were not found to be protective against later intergenerational/acculturative family conflict in the current study, there was little evidence to suggest that the beliefs contributed to greater levels of conflict at a later time-point, using either parent's reports or adolescent's reports of conflict. Even the marginally positive effect for fathers was present only in the parent-report model, suggesting that the effect had more to do with the saliency of conflict for fathers as opposed to objective levels of conflict. Overall, the results could be interpreted positively, as bicultural socialization beliefs may be a valuable parenting cognition for youth's development within Chinese American families and should potentially be promoted (Kim & Hou, 2016).

Mothers and fathers in heterosexual-parent immigrant families often occupy different roles within the household, and such roles may be altered by the immigration experience (Lamb & Boughner, 2009; Qin, 2009). Within the current study, only one

path was found to significantly differ by parent, that being the path from mother's or father's bicultural socialization beliefs to her/his later own perceptions of conflict with her/his child. As the path was nonsignificant within mothers and only marginally positively significant within fathers, replication may be needed before clear interpretations on gender roles can be made. Nevertheless, significant differences in this path might suggest differences between how mothers and fathers acknowledge and interpret conflict with her/his child, as such differences were not found when using adolescent's perceptions of conflict.

### **Future Research**

Future studies could further clarify the relation between family conflict and parents' later bicultural socialization beliefs by examining situations in which these relations may occur. Certain parent and family level factors such as socioeconomic stress, difficulty navigating bicultural contexts, or insecure parent-adolescent attachment might impede some parents' abilities to reflect on conflict in ways that promote bicultural beliefs. These factors may even interfere with parents' abilities to acknowledge that family conflict with their child is occurring. Thorough understanding of what contexts and features promote parents' development of bicultural socialization beliefs in response to conflict could be valuable for interventions focused on conflict in ethnic minority/immigrant families. Lastly, future studies could extend the current model through focusing on how parents' increases in bicultural socialization beliefs (in response to family conflict) influence their subsequent behaviors and interactions with their child. Specifically of interest would be whether parents' adaptations in their bicultural beliefs

serve a protective function against further conflict. By determining these outcomes, results from Study 3 could more readily be applied to practice.

## CHAPTER 5

### STUDY 4: MODERATION IN BICULTURAL SOCIALIZATION BELIEFS AND CHILD AND FAMILY OUTCOMES

#### Study 4 Literature Review

How bicultural socialization beliefs relate to child adjustment and other family outcomes may depend on several contextual factors. One such factor is the parents' motivations for wanting their children to take on bicultural values as well as their views on what constitutes future success and well-being in the destination culture. Chinese immigrant parents vary in their aspirations for their child's future. For example, some parents place much emphasis on academic achievement whereas others take a more holistic approach, such as in valuing moral development, physical development, or the development of the child's individual strengths and interests (Cheah et al., 2013; Qin, 2008). As such, parents may take on bicultural socialization beliefs because they wish to promote the emotional and psychological well-being of the child, whereas others may wish to maximize their child's academic achievement, financial/school success, and upward social mobility (although these goals are not necessarily mutually exclusive). Depending on the motivation and goal, immigrant parents may display different parenting behaviors and strategies that influence child and family outcomes. For example, it is possible that parents whose bicultural socialization beliefs are motivated by their child's success in school place more academic pressure on their child, which itself may relate to hostile and punitive parenting behaviors, parent-child alienation, and adolescent internalizing difficulties (Kim et al., 2013b; Kim et al., 2015; Qin, 2006). In contrast,

parents who value other areas of development may decrease their amount of focus on their child's academic performance (Cheah et al., 2013; Lee & Keown, 2018).

Another potentially influential factor involves immigrant parents' ability to effectively translate their cognitions into socializing practices that promote their child's bicultural values. Parental stress has long been established to negatively impact parents' interactions with their children (Masarik & Conger, 2017). One stressor specifically relevant to immigrant parents' acculturative experiences is their potential difficulty in navigating heritage and destination cultures, both internally and externally. For example, immigrant parents may struggle with deciding which cultural values to abide by in certain situations, or they may feel that destination and heritage cultural values conflict. This stressor, known as bicultural management difficulty, has negative implications for both the parents' mental health as well as intergenerational/ acculturative family conflict (Hou et al., 2016; Kim et al., 2014). Parents' struggles with balancing two cultures may interfere with their ability to discern which values from each culture are beneficial for their child's development as well as how to socialize their children into adopting values from both cultures. Lastly, immigrant families may experience varying degrees of economic stress that may interact with their socialization beliefs. For example, economic stress may complicate parents' abilities to provide resources that they feel are necessary to promote their child's bicultural socialization and success. Socio-economic stress among Chinese immigrant parents may also contribute to difficulty utilizing the supportive parenting behaviors hypothesized to be related to bicultural socialization beliefs (Cheah et al., 2013; Benner & Kim, 2010).

#### **Study 4 Aims**



The goal of Study 4 was to examine potential moderating influences on the relation between Chinese American parents' bicultural socialization beliefs and adolescent adjustment. In Study 2, parents' bicultural socialization beliefs in adolescence were not found to have any significant predictive effect on young adult depressive symptoms four years later. Thus, focus was placed on the outcome of adolescent depressive symptoms in order to determine whether any lack of direct effect is due to moderating influences.

Parents may vary in their motivation for adopting bicultural socialization beliefs, and factors may influence how parents' bicultural socialization beliefs are expressed. To approximate parents' motivation for adopting bicultural socialization beliefs, the current study examined the moderating role of parents' level of academic pressure and emphasis for their child. If parents' beliefs are primarily motivated by their child's future academic success, they may be expected to place higher levels of academic pressure on their child. Therefore, it was hypothesized that, as levels of bicultural management difficulty increased, relations between bicultural socialization beliefs and levels of depressive symptoms would become more positive. In order to examine parents' ability to effectively express their beliefs under varying levels of stress, the current study examined the moderating roles of parents' bicultural management difficulty and levels of socio-economic stress. It was hypothesized that as levels of stress increased, the relations between bicultural socialization beliefs and levels of depressive symptoms would become more positive. Focus was initially placed on the cross-sectional relation between bicultural socialization beliefs and adolescent depressive symptoms, with longitudinal examinations considered depending on results of the initial analyses.

Limited analyses were then conducted focusing on the outcome of unsupportive parenting behaviors, as bicultural socialization beliefs were found to predict mother's unsupportive parenting behaviors positively and concurrently during adolescence. There was interest in examining whether this relation with a parenting construct seen as negative in the Western literature varied under different circumstances. To test this question, analyses were conducted to examine the moderating influence of bicultural management difficulty on the concurrent relation between parents' unsupportive parenting behaviors and adolescent depressive symptoms. It was decided to focus on bicultural management difficulty for the follow-up analyses because both bicultural management difficulty and bicultural socialization beliefs reflect parents' subjective bicultural experiences. Thus, bicultural socialization beliefs may be more closely tied with bicultural management difficulties than with the other moderating variables. It was hypothesized that as bicultural management difficulty increased, the relation between bicultural socialization beliefs and adolescent depressive symptoms would become more positive.

#### **Study 4 Method**

##### **Participants**

Participants in Study 4 included mothers, fathers, and adolescents within families from Wave 2 of the three-wave longitudinal study. Separate models were created for each set of moderation analyses and so samples sizes varied depending on the amount of missing data in relevant variables. Sample sizes were 350 families for the depressive symptoms analyses involving bicultural management difficulty and academic pressure as moderators and 260 families for the depressive symptoms analyses involving financial

stress as moderator. The sharp decrease in available data for the financial stress analyses was due to limitations in modeling latent interactions (see Study 4 Data Analysis Plan). The sample size was 325 for the unsupportive parenting analyses involving bicultural management difficulty.

## **Measures**

### **Bicultural Socialization Beliefs**

Mothers' and fathers' bicultural socialization beliefs were measured at Wave 2 using a 3-item self-report scale. The scale was created by Dr. Su Yeong Kim for the purpose of the three-wave longitudinal study. (Kim & Hou, 2016). See Study 1 Method for more information about the Bicultural Socialization Beliefs scale.

### **Depressive Symptoms**

Adolescent adjustment at Waves 2 was measured using the Center for Epidemiologic Studies of Depression Scale (CES-D; Radloff, 1977), a 20-item self-report measure of depressive symptoms. See Study 2 Method for more information about the CES-D. Internal consistency at Wave 2 was  $\alpha = .90$ .

### **Moderators**

#### **Academic Pressure**

Mothers' and fathers' views and behaviors related to academic pressure at Wave 2 was measured through three self-report items related to academic pressure and adolescents' academic achievement: 1) "I pressure my child to do well in school"; 2) "I tell my child that only outstanding academic performance is good enough"; and 3) "If my child fails academically, it brings shame to my family". On each item, parents responded on a scale from 1 (strongly disagree) to 5 (strongly agree). Item one was created by Dr.

Su Yeong Kim for the three-wave longitudinal study. Previous examinations of the current sample have used item one, answered from the point of view of the adolescent, in a separate measure of adolescent adjustment as related to academic pressure (Kim et al., 2013b; Kim et al., 2015). Items two and three were adapted from the Asian Values Scale (Kim et al., 1999) and were selected for the current study due to their focus on parents' behaviors and feelings regarding their child's academic performance. Internal consistencies for the measure of academic pressure were  $\alpha = .69$  for mothers and  $\alpha = .71$  for fathers.

As this measure had not been used previously, a two-factor confirmatory factor analysis (one mother factor and one father factor) was conducted. Mother and father items were loaded onto their respective latent factors and the latent factors were correlated. In addition, residual variances of identical items across parents were correlated. All items loaded significantly onto their corresponding factors, and the resulting model demonstrated a good fit for the data ( $\chi^2(5) = 8.64, p = .125$ ; RMSEA = .047; CFI = .99; SRMR = .032). For study 4, measures of academic pressure were created through averaging items together as opposed to retaining the confirmatory factor analysis into study models (as was done for new measures in Study 1). This was done to avoid significant decreases in sample size due to latent interactions.

### **Socio-economic Stress**

Similar to study 1, mothers' and fathers' perceptions of socio-economic stress at Wave 2 was conceptualized as three constructs: financial difficulties, financial strain, and financial adjustments (Conger et al., 1989-1992; Conger et al., 1995; Conger et al., 2002;

Ge et al., 1996). See Study 1 Method for more information on how these three constructs were measured.

### **Bicultural Management Difficulty**

Mothers' and fathers' bicultural management difficulty at Wave 2 was measured using a 6-item self-report scale created for the three-wave longitudinal study (Kim et al., 2014; Hou et al., 2016). Each item in the scale reflects parents' perceptions of stress involved in navigating both Chinese culture and American culture. Examples of items include "I don't like having to choose between being Chinese or being American" and "It is hard to juggle between Chinese and American values". Parents responded to each item on a 5-point scale from 1 (never) to 5 (always). Responses on items were averaged together, with higher scores reflecting more bicultural management difficulty. Internal consistencies for the bicultural management difficulty scales were  $\alpha = .85$  for both mothers and fathers at Wave 2.

### **Analysis Plan**

Prior to conducting moderation analyses, observed variables used in interaction terms were mean-centered. Interaction terms were created within MPlus. Moderation analyses for each moderator was conducted through a separate series of nested models (see Figure 12 for conceptual model). In the first model of a series, adolescents' reports of depressive symptoms were regressed on variables for mother's bicultural socialization beliefs and father's bicultural socialization beliefs. All other paths were set to zero. In the second model, paths from the mother and father moderator variables (i.e., academic pressure, bicultural management difficulty, and socio-economic stress) were allowed to be freely estimated. Finally, in the third model, paths from the interaction terms between

bicultural socialization beliefs and moderator variables were freely estimated.

Significance of interactions were determined by examining regression coefficients and comparison of model fit between the third model and the previous main effects model.

As in Study 1, socioeconomic stress was measured using latent variables consisting of measures of financial difficulties, financial strain, and financial adjustments. For the moderation analyses involving socioeconomic stress, a two-factor measurement model was first created in which indicators were loaded onto their respective latent factors, latent factors were correlated, and residual variances of identical indicators across parent were correlated. The XWITH function within MPlus was used to create latent interaction terms that combined a parent's measures of bicultural socialization beliefs with her/his latent measure of socioeconomic stress. Due to limitations with MPlus's XWITH function and its ability to address missing data, the number of available cases decreased for these analyses.

The analyses utilizing unsupportive parenting behaviors as outcome were also conducted using a series of nested models (see Figure 13 for conceptual model). As in Study 2, mother's unsupportive parenting behaviors and father's unsupportive parenting behaviors were modeled as latent variables, each consisting of parental hostility, punitive parenting, and psychological control. Thus, analyses began with the creation of a measurement model. Mother's and father's latent factors were correlated, as were residual variances of identical indicators across parents. All correlations from the measurement model were retained in the nested models, contingent on the measurement model being a good fit for the data.

#### **Study 4 Results – Adolescent Depressive Symptoms**

### **Preliminary Analyses**

Bivariate correlations for variables used in the adolescent depressive symptoms analyses are presented in Table 20. Within mother-adolescent dyads, adolescent depressive symptoms were not significantly correlated with mother's bicultural socialization beliefs or any of the moderator variables. However, mother's bicultural socialization beliefs were positively correlated with both mother's academic pressure ( $r = .25, p < .001$ ) and mother's bicultural management difficulty ( $r = .18, p = .002$ ). In addition, mother's bicultural socialization beliefs were positively correlated with two indicators of socioeconomic stress: financial strain ( $r = .12, p = .035$ ) and financial adjustment ( $r = .20, p < .001$ ). Within father-adolescent dyads, adolescent depressive symptoms were significantly correlated with only father's bicultural management difficulty ( $r = .13, p = .029$ ). Father's bicultural socialization beliefs were positively correlated with father's academic emphasis ( $r = .14, p = .024$ ), bicultural management difficulty ( $r = .14, p = .023$ ), and two indicators of socioeconomic stress: financial strain ( $r = .12, p = .045$ ) and financial adjustment ( $r = .14, p = .020$ ).

### **Primary Analyses**

Full results from the moderation analyses are presented in Table 21.

#### **Academic Emphasis**

In the first model, neither mother's bicultural socialization beliefs nor father's bicultural socialization beliefs were significantly related to adolescent depressive symptoms. In the second model that also included paths from academic pressure, mother's and father's bicultural socialization beliefs and academic pressure were not related to adolescent depressive symptoms. Lastly, results from the third model indicated

no significant effect of the interaction between bicultural socialization beliefs and academic pressure on adolescent depressive symptoms for either mothers or fathers.

### **Bicultural Management Difficulty**

In the first model, neither mother's bicultural socialization beliefs nor father's bicultural socialization beliefs were significantly related to adolescent depressive symptoms. In the second model that also included paths from bicultural management difficulty, father's bicultural management difficulty marginally predicted adolescent depressive symptoms ( $b = .07, SE = .042, p = .098$ ). Lastly, results from the third model indicated no significant effect of the interaction between bicultural socialization beliefs and bicultural management difficulty on adolescent depressive symptoms for either mothers or fathers.

### **Financial Stress**

Results of the measurement model for the socioeconomic stress latent variables indicated the model to be a good fit for the data ( $\chi^2(5) = .9819, RMSEA = .000, CFI = 1.000, SRMR = .007$ ). Factor loadings and residuals are presented in Table 22. Factor variances, covariances, and error covariances are presented in Table 23. All indicators loaded significantly onto their respective factors. In the first study model, neither mother's bicultural socialization beliefs nor father's bicultural socialization beliefs were significantly related to adolescent depressive symptoms. In the second model that also included paths from socioeconomic stress, mother's and father's bicultural socialization beliefs and socioeconomic stress were not related to adolescent depressive symptoms. Lastly, results from the third model indicated a significant effect of the interaction between mother's bicultural socialization beliefs and mother's socioeconomic stress on



adolescent depressive symptoms. As mothers' perceptions of socioeconomic stress increased, the relation between mother's bicultural socialization beliefs and adolescent depressive symptoms became more negative ( $b = -.20, SE = .081, p = .012$ ). Simple slopes for the relation between mother's bicultural socialization beliefs and adolescent depressive symptoms at three levels of mother's socioeconomic stress are presented in Table 24 and Figure 14.

### **Study 4 Results – Unsupportive Parenting Behaviors**

#### **Preliminary Analyses**

Bivariate correlations for the study variables are present in Table 25. Correlations between bicultural socialization beliefs variables and unsupportive parenting behaviors variables were previously examined and presented in Study 2. Mother's bicultural management difficulty was positively and significantly related to mother's parental hostility ( $r = .15, p = .010$ ). Father's bicultural management difficulty was positively and significantly related to father's psychological control ( $r = .14, p = .018$ ).

#### **Primary Analyses**

The measurement model for unsupportive parenting behaviors at Wave 2 was a good fit for the data ( $\chi^2(5) = 1.298, p = .935; RMSEA = 0.00; CFI = 1.00; SRMR = .011$ ). All results of measurement model were identical to those presented in Study 2 (see Tables 10 and 11). All indicators significantly loaded onto their respective latent factors. Results from the nested models are presented in Table 26. In the first model, mother's bicultural socialization beliefs were significantly and positively related to mother's unsupportive parenting behaviors ( $b = .14, SE = .048, p = .004$ ) whereas father's bicultural socialization beliefs were marginally related to father's unsupportive parenting

behaviors ( $b = .095$ ,  $SE = .050$ ,  $p = .060$ ). In the second model that also included paths from bicultural management difficulty, mother's bicultural socialization beliefs were still positively related to their own unsupportive parenting behaviors ( $b = .13$ ,  $SE = .049$ ,  $p = .007$ ). In addition, father's bicultural management difficulty positively and significantly predicted their own unsupportive parenting behaviors ( $b = .097$ ,  $SE = .047$ ,  $p = .038$ ). Lastly, results from the third model indicated no significant effect of the interaction between bicultural socialization beliefs and bicultural management difficulty on unsupportive parenting behaviors for either mothers or fathers.

#### **Study 4 Discussion**

The current study found no evidence for a cross-sectional relation between mother's or father's bicultural socialization beliefs and adolescent's reports of depressive symptoms. Such results align with the challenge in identifying a link between parent's cognitions and child outcomes discussed in Study 2. In addition, results were limited in their ability to demonstrate that parents' bicultural socialization beliefs function differently across the chosen contexts, at least as they relate to adolescent depressive symptoms or parent's unsupportive parenting behaviors.

Of the analyses conducted, there was only the significant moderating effect of mother's socioeconomic stress on adolescent depressive symptoms. This negative interaction effect was in the opposite direction of what was hypothesized. The sample size for the analyses was also significantly reduced due to statistical limitations; thus, any interpretations of the effect should be made with caution. Simple slopes for the interaction suggested that there were no significant relations between mother's bicultural socialization beliefs and adolescent depressive symptoms at low or average levels of

socioeconomic stress; however, higher levels of bicultural socialization beliefs were related to lower levels of adolescent depressive symptoms under high levels of socioeconomic stress. One possible interpretation is that the nature of parent's bicultural socialization beliefs differs across socioeconomic status. Parents from lower socioeconomic backgrounds have been found to have lower expectations and goals for their child's development than parents from high socioeconomic backgrounds (see Okagaki & Bingham, 2005 for review). As such, bicultural socialization beliefs in low socioeconomic status parents may be less pressuring or focused on achievement, which then translate to more supportive parenting. In addition, greater experiences of bicultural and acculturation-related stress have been found to relate to lower levels of socioeconomic status and higher levels of depressive symptoms among youth (Romero et al., 2007). This could suggest that parents' bicultural socialization beliefs may be particularly important for children from families of low socioeconomic status or with high socioeconomic stress, as the beliefs could allow parents to address their child's bicultural and acculturation-related stressors. Figure 14 indicates that, compared to low and average levels, children of mothers with high levels of socioeconomic stress generally reported higher levels of depressive symptoms, further supporting this interpretation.

Little clarity was obtained on the link between bicultural socialization beliefs and adolescent depressive symptoms; however, bicultural socialization beliefs were positively associated with moderation variables within both mothers and fathers. Specifically, as parents reported greater desire for their child to be bicultural, they also reported experiencing greater difficulty navigating bicultural contexts, placing more pressure on

her/his child to succeed academically, and perceiving greater levels of socioeconomic stress. The positive relation with bicultural management difficulty could be due to an underlying awareness of biculturalism and differences between heritage and destination cultures, whereas the positive relation with academic pressures is logical given the shared emphasis on the child's success and achievement. The positive relation with socioeconomic stress is contrary to hypotheses presented in Study 1, in which it was expected parents with lower levels of stress may have more opportunities to engage with socializing agents in their environment (Bornstein & Cote, 2010; Cheah et al., 2013). It could be argued that parents who experience more socioeconomic stress may have greater desire for their children to be bicultural because they feel biculturalism would provide an avenue for their child's socioeconomic success.

### **Future Research**

Although findings from the current study were limited, results suggested some avenues for future research. In the current study, mother's and father's academic pressure were used to approximate their motivation for wanting her/his child to adopt bicultural values. Future examinations should attempt to capture heterogeneity in parents' motivations more closely. For example, research could directly identify the area or areas of development Chinese American parents find most important for their children and inquire about how parents define "success" and "good future" (Cheah et al., 2013). One would expect any parent to care about their child's academic, emotional, and physical well-being; however, parents may vary in how important they feel these domains are relative to each other. Results also emphasize the continued need for research on socialization goals in Chinese American parents from different socioeconomic

backgrounds. Qualitative examinations have been valuable in identifying how socioeconomic factors intersect with Chinese American parent's expectations for their children and parent-child interactions (e.g., Qin, 2008). Further qualitative studies focused on bicultural socialization beliefs in lower-socioeconomic status parents may reveal the processes driving the significant socioeconomic stress finding in the current study.

## **CHAPTER 6**

### **GENERAL DISCUSSION**

Through conducting four interconnected studies, the current dissertation aimed to illustrate Chinese American parents' bicultural socialization beliefs as part of a developmental process linking parents' cultural and social experiences to child and family outcomes (Figure 1; Bornstein et al., 2018; Harkness & Super, 2006; Okagaki & Bingham, 2005). Simultaneously, the dissertation aimed to demonstrate how parents' bicultural socialization beliefs both influence and are influenced by parents' experiences within multiple systems (Figure 2; Bronfenbrenner, 1992/2005; Darling, 2007). Overall, results from the dissertation provided evidence for many aspects of the developmental and ecological models that informed the body of work, although the strength of evidence varied across studies.

To begin, findings suggest certain aspects of Chinese immigrant parents' social and cultural experiences influence their development of bicultural socialization beliefs. Parents' desires for their children to take on both Chinese and mainstream American values are guided by their own cultural identities and values, specifically those associated with Chinese culture. In fact, their retention of their heritage cultural orientation appears to play a larger role in their bicultural socialization processes than their assimilation to a more "mainstream" American way of life. In addition, parents' own immigration histories may play a role in their adoption of bicultural socialization beliefs, as there was evidence of mothers who had spent less time in the United States holding stronger beliefs. Further research is needed to identify and understand the full constellation of

contextual factors that determine how strongly Chinese immigrant parents value biculturalism in their children.

The current dissertation also demonstrated ways in which Chinese American parents' bicultural socialization beliefs may play out within different levels of the family. In their efforts to socialize their children to be bicultural, Chinese American parents appear to utilize both practices that are considered supportive and practices that are considered unsupportive in the Western parenting literature. Such an observation may reflect the fact that parents are tasked with navigating two (or more) different sets of cultural values in socializing their children to succeed. In addition, fathers' adoption of bicultural socialization beliefs appeared to be protective against mothers' use of unsupportive parenting behaviors. The finding illustrates how Chinese American parents may influence each other at the couple level when making decisions on how to raise their children in a culturally pluralistic environment. Lastly, parents who experienced more parent-child conflict resulting from intergenerational/acculturative differences during adolescence also more strongly valued biculturalism in their child during young adulthood. Thus, parents' beliefs are not static and appear to evolve in response to interactions within their family, in addition to the previously mentioned social and cultural factors.

While Chinese American parent's bicultural socialization beliefs both influence and are influenced by their interactions with their child, how they influence their child's well-being was not clearly discerned. Overall, parents' desires for their child to adopt bicultural values did not affect their child's depressive symptoms, either directly or indirectly through their parenting behaviors. However, a mother's beliefs may serve a

protective function for her child's depressive symptoms when she experiences high levels of socioeconomic stress. Thus, there may be some narrative connecting parents' bicultural socialization beliefs to their child's well-being that is still uncovered.

### **Mother and Father Differences**

A pattern emerged across the four studies in which effects were generally stronger for mothers than for fathers. For example, no social or cultural factors were found to predict father's level of bicultural socialization beliefs in Study 1, and a significant interaction between bicultural socialization beliefs and socioeconomic stress was found for only mothers in Study 4. Such a pattern is consistent with extant literature suggesting Chinese immigrant mothers are more influential than fathers in family cultural socialization processes (Kim & Hou, 2016; Su & Costigan, 2009) and that Chinese mothers take on greater parenting responsibilities than Chinese fathers (Shek, 2000). However, Chinese American fathers' roles in socialization should not be minimized, as their bicultural socialization beliefs were still found to influence parenting behaviors and be influenced by family interactions in ways similar to mothers. Furthermore, fathers' bicultural socialization beliefs had a potential protective role against mothers' unsupportive parenting behaviors (Study 2), suggesting that a Chinese American father may indirectly socialize his child through his partner. Results speak to the continued importance in examining the interplay of both mother and father processes in studies of heterosexual, two-parent, Chinese American families.

It is difficult to discern the reason there were parent gender differences across the four studies. The current sample was diverse in multiple important demographic factors such as socioeconomic status and parental education. The sample also included both



Chinese immigrant parents (who ranged widely in their time in the United States) as well as a smaller number of American-born Chinese parents. Socioeconomic status and parental education may influence gender roles in ethnic Chinese families (Qin, 2009), and attitudes toward gender roles have been found to differ based on generational status among immigrants in the United States (Phinney & Flores, 2002). Thus, mothers and fathers within the current sample may have varied widely in how they conceptualized divisions in parental gender roles. To bring more clarity to Chinese American mothers' and fathers' bicultural socialization beliefs, future research may examine whether mother-father differences in bicultural socialization processes are explained by couples' attitudes towards gender roles. Continued qualitative research focused on gender roles and socialization goals within Chinese American families would also provide further clarity.

### **Strengths and Limitations**

The dissertation expanded upon current understandings of parenting in ethnic-minority and immigrant families through quantitatively focusing on parents' goals and beliefs for their children that are specifically bicultural. Through quantitatively placing bicultural socialization beliefs within the frameworks of parenting social cognitions, ethnotheories, and acculturation, the current studies built on important existing literature that had either taken qualitative approaches (e.g., Cheah et al., 2013; Leiber et al., 2004) or centered on heritage and destination socialization beliefs separately (e.g., Chao, 2000; Huang et al., 2017; Padmawidjaja & Chao, 2010). Reports from both mothers and fathers were utilized across the four studies. Doing so allowed for the modeling of dependency and acknowledgement that mothers and fathers in heterosexual-parent families exist

within couple and family sub-systems (Fitzpatrick et al., 2016; Minuchin, 1987). The reliance on both parents' reports also permitted examination of mother-father differences, thus accounting for differences in parent gender roles that have been established in the immigration literature (Qin, 2009). In addition, reports from the adolescent and young-adult children of parents were utilized to account for potential shared method variance in certain analyses. The current dissertation was further strengthened by its use of longitudinal data, allowing for some inference of temporal precedence in effects. Lastly, bicultural socialization beliefs were examined in a large, socio-economically diverse sample that differed from the highly educated, middle-class samples more commonly seen in the Chinese American parenting literature. Thus, findings pertained to a segment of the Chinese American population whose voices are largely underrepresented.

The current dissertation was limited by its heavy utilization of self-report measures, making the findings vulnerable to shared method variance overestimating relations (Okagaki & Bingham, 2005; Orth, 2013). Some analyses may have been particularly influenced by the use of all parent self-report measures, such as the relations between parents' bicultural socialization beliefs and their un/supportive parenting behaviors in Study 2. Specifically, parents' reports on their own behaviors may reflect their beliefs on optimal parenting behaviors more so than their actual behaviors, which in turn may be more strongly associated with bicultural socialization beliefs (Okagaki & Bingham, 2005). Such a limitation could be addressed through using adolescents' reports of their parent's behaviors in future research. In addition, although some longitudinal analyses were conducted, some studies consisted of cross-sectional relations that complicated interpretations of directions of effects. This was most notable in the relation

between parents' beliefs and parents' behaviors in Study 2 as well as the moderation analyses in Study 4. Furthermore, the current dissertation was limited by its measure of bicultural socialization beliefs. The three-item measure spoke generally about Chinese values and American values as opposed to specifying what values parents would like their children to adopt. This general approach could be a strength in that it allowed for each's parent's own interpretation of biculturalism. However, it prevented a more nuanced approach in determining what specific beliefs in which certain domains influenced or were influenced by family, social, and cultural processes.

Data used in the current dissertation were collected between 2002 and 2010, thus there may be some questions of the findings' significance and relevance to Chinese American families today. The four studies in the dissertation utilized variable-centered approaches, meaning findings were less vulnerable to being sample-specific than person-centered work. In addition, many of the topics covered across the four studies, such as parents' acculturation, parents' socialization beliefs, parenting behaviors, and family conflict within Asian American families, remain important and of interest within the immigration and ethnic-minority literature (e.g., Kho et al., 2019; Shen et al., 2019; Zhou et al., 2017). The theories underlying the dissertation (i.e., parenting cognitions, ethnotheories, parent socialization) also do not pertain to specific, time-limited phenomenon/social practices but are instead considered fundamental to general family and parenting processes (Bornstein & Lansford, 2010; Darling & Steingberg, 1993; Harkness & Super, 2006). Furthermore, examinations of bicultural processes within Chinese American families continue to be needed as the number and proportion of Asian Americans in the United States rises (Budiman & Ruiz, 2021b). There will be an ongoing

increase in Asian immigrant parents who are tasked with navigating multiple sets of cultural values when raising their children. Lastly, there currently exists few quantitative examinations of Chinese American parenting cognitions that are uniquely bicultural, and our understandings of parents' bicultural socialization beliefs are still limited. Due to the measures and methodologies utilized in the three-wave longitudinal study, the current dissertation was able to address this gap and examine Chinese American parents' bicultural socialization beliefs in a comprehensive manner.

### **Implications for Practice**

The dissertation aimed to inform interventions and practice with Chinese American families through establishing bicultural socialization beliefs' implications for adolescent and family outcomes. However, findings across the four studies do not lend themselves to straightforward conclusions about bicultural socialization beliefs being clearly beneficial (or detrimental) for Chinese American families. Instead, results present a nuanced picture of how bicultural socialization beliefs develop and function for Chinese American mothers and fathers.

According to past research, Chinese American parent's bicultural socialization beliefs appear to have positive implications for their adolescent child's own bicultural socialization beliefs (Kim & Hou, 2016). Given the benefits of biculturalism in ethnic-minority youth (Choi et al., 2018; Nguyen & Benet-Martinez, 2013), that finding in itself could validly be used to argue for the promotion of parents' bicultural socialization beliefs. Unfortunately, only a few results from the current study could contribute to this narrative. Bicultural socialization beliefs predicted self-reports of supportive parenting behaviors in both mothers and fathers, and there was some evidence that the beliefs could

be protective against adolescent depressive symptoms in the context of high socioeconomic stress. However, these findings came with the limitations discussed above, and connections between beliefs to adolescent/young adult depressive symptoms were repeatedly not found. On the other hand, it would not be appropriate to label bicultural socialization beliefs as maladaptive because of the positive predictive effect on unsupportive parenting behaviors in mothers. That finding came with the same limitations as the effect on supportive parenting (e.g., shared method variance, use of Western measures), and there was no evidence that parent's reports of unsupportive parenting predicted young adult depressive symptoms four years later. Instead, results from the dissertation suggest bicultural socialization beliefs are a complex but important part of how Chinese American parents socialize their children to be successful, and the beliefs may involve many dimensions and individual differences. Further examinations, such as those suggested throughout the dissertation, are needed before many forms of direct clinical application can be done responsibly.

What can be said about the current findings as they relate to practice with Chinese American families? Overall, results indicate the need for professionals to respect the complicated and potentially challenging tasks Chinese American parents face when parenting in culturally pluralistic contexts. Professionals should not assume that Chinese American parents follow single cultural scripts in raising their children and that their parenting approaches align with just heritage or destination cultures. In pursuit of wanting what is best for their child, Chinese American parents adopt multidimensional socialization goals spanning multiple cultures, and the manners in which parents navigate multiple cultures influence their behaviors and identities as parents. Thus, practitioners

working with Chinese American parents and families must respond to Chinese American parents in ways that are empathic and sensitive to the challenges that they face. They must also approach parents' difficulties in a manner that is understanding and nonjudgmental, as Chinese American parents are pulled in multiple directions when raising their children to succeed.

Several other implications can be considered. To begin, when Chinese American parents' behaviors are an avenue for intervention, it may be beneficial to discern what cultural and other socialization goals might be driving their current behaviors (Darling & Steinberg, 1993). Practitioners could then collaborate with parents in determining how the stated goals could be expressed in alternate ways. In addition, findings from Study 3 indicate that many Chinese American parents have the capacity to be adaptive to challenging intergenerational and/or acculturative interactions with their children through increasing their bicultural socialization beliefs. In the context of treatment, providers could frame this adaptation as an existing strength Chinese American parents possess for overcoming difficult parent-adolescent conflicts (Flückiger & Grosse Holtforth, 2008; Scheel et al., 2012). Furthermore, practitioners should be aware that parents vary in their bicultural socialization beliefs depending on a variety of family, cultural, and social factors. Assessment of these factors, and how they relate to parents' socialization beliefs for their children, would be essential in fully understanding the parent-child relationship.

Lastly, results of the dissertation emphasize the value of promoting perspective-taking and shared understanding across family members when it comes to reconciling parent-child conflicts and difficult family relationships within immigrant/ethnic-minority families (Szapocznik et al., 1986). Adolescents' perspective-taking is positively related to

their sharing of feelings or secrets with their parents as well as their propensity to resolve conflicts with parents in ways that are mutually acceptable (Disla et al., 2018; Van Lissa et al., 2016). Through responsive guidance by a clinician, Chinese American parents could effectively communicate to their children the socialization goals and beliefs underlying their parenting behaviors, including behaviors that the youth may find punitive or controlling. Parents could also communicate the situational factors, such as their own cultural values and immigration story, that have led to them adopting such beliefs. In response to this communication, youth can better come to understand that their parents' practices and behaviors, some of which they may resent, are often motivated by their parents' desires for them to be successful and have a good future in a cultural environment that is diverse and very different from what their parents may know. By understanding their parents' perspectives, youth may be able to navigate conflicts with their parents in ways that are more adaptive and satisfying for themselves (Van Lissa et al., 2017). Likewise, results from Study 3 demonstrating family conflict positively predicting later bicultural socialization beliefs could indicate that Chinese American parents engage in some perspective-taking in response to intergenerational/acculturative family conflict. Specifically, parents who respond to high levels of conflict with their child through more strongly valuing bicultural values in their child may be trying to understand and respect the different cultural (e.g., Western) pressures and influences that their child encounters outside of the family, such as at school and with friends. Such perspective-taking and understanding by parents, when present, could be reinforced by clinicians in order to foster more positive parent-youth interactions (Lundell et al., 2008; Qin, 2008; Szapocznik et al., 1986).

## TABLES

**Table 1**

*Bivariate Correlations for Study 1 Variables*

Variable	1	2	3	4	5	6	7	8	9	10	11	M	SD
1. BSB	-	.11	.11	-.02	-.01	-.03	-.06	-.02	.05	-.08	-.04	3.90	.63
2. Ch. Orientation	.23**	-	.30**	-.14*	.09	.03	-.02	-.16**	.07	-.10	-.04	3.86	.42
3. Am. Orientation	.18**	.25**	-	.05	.19**	-.00	-.13*	-.03	.16**	-.10	-.04	3.43	.41
4. Time in U.S.	-.06	-.06	.20**	-	.06	-.12	-.17*	-.12*	.34**	-.12*	.13*	17.96	9.93
5. Education	.11	.08	.21**	.13*	-	-.15**	-.24**	-.30**	-.02	.14*	-.08	5.62	1.71
6. Financial Diff.	-.04	-.05	-.14*	-.18**	-.16**	-	.52**	.49**	-.14*	.14*	.24**	1.85	1.01
7. Financial Strain	-.11	-.05	-.09	-.16**	-.24**	.60**	-	.45**	-.25**	.09	.08	2.77	.93
8. Financial Adj.	-.01	.00	.01	-.11*	-.24**	.46**	.44**	-	-.17**	.09	.21**	1.37	1.54
9. Status Change	.09	.09	.22*	.37**	.00	-.24**	-.24**	-.13*	-	-.40**	-.02	3.34	.72
10. Work Diss.	.00	-.01	-.08	-.16**	.03	.27**	.10	.12*	-.27**	-	.10	2.71	.70
11. Discrimination	.04	.06	.00	.08	-.03	.15**	.11*	.13*	-.08	.12*	-	2.03	.48
M	3.84	3.89	3.39	15.87	5.61	1.84	2.76	1.41	3.33	2.69	1.95	-	-
SD	.60	.45	.43	7.93	1.62	1.01	.95	1.55	.77	.69	.45	-	-

*Note.* Correlations for mothers are below the diagonal whereas correlations for fathers are above. BSB = Bicultural Socialization Beliefs. BSB was measured at Wave 2. All other variables are from Wave 1. For bivariate correlations, Status Change and Work Dissatisfaction were measured as mean scores.

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



**Table 2***Results from Study 1 Simplified Models*

Predictor	Outcome					
	Mother BSB			Father BSB		
	Unst.	SE	St.	Unst.	SE	St.
<b>Model 1</b>						
M. Ch. Orientation	.32**	.08	.24	-	-	-
F. Ch. Orientation	-	-	-	.17	.10	.11
<b>Model 2</b>						
M. Am. Orientation	.22*	.09	.15	-	-	-
F. Am. Orientation	-	-	-	.13	.10	.08
<b>Model 3</b>						
M. Ch. Orientation	.29**	.08	.22	-	-	-
M. Am. Orientation	.16	.09	.11	-	-	-
F. Ch. Orientation	-	-	-	.15	.10	.10
F. Am. Orientation	-	-	-	.10	.10	.06
<b>Model 4</b>						
M. Ch. Orientation	.29**	.08	.22	-	-	-
M. Am. Orientation	.12	.10	.08	-	-	-
M. Ch. X M. Am.	.14	.18	.05	-	-	-
F. Ch. Orientation	-	-	-	.12	.10	.08
F. Am. Orientation	-	-	-	.17	.12	.11
F. Ch. X F. Am.	-	-	-	-.25	.21	-.09
<b>Model 5</b>						
M. Education	.04	.02	.10	-	-	-
<b>Model 6</b>						
M. SE Stress	-.04	.04	-.07	-	-	-

*Note.* M. = Mother; F. = Father; Ch. = Chinese; Am. = American; SE = Socioeconomic; BSB = Bicultural Socialization Beliefs; Unst. = Unstandardized; St. = Standardized  
 \* $p < .05$ ; \*\* $p < .01$

**Table 3**

*Maximum Likelihood Estimates of Factor Loadings and Residuals for the Study 1 Measurement Model*

Indicator	Factor Loadings			Error Variances		
	Unst.	SE	St.	Unst.	SE	St.
<b>M. SE Stress</b>						
Financial Strain	.69	.05	.73	.42	.05	.47
Financial Difficulty	.84	.06	.82	.33	.06	.32
Financial Adjustment	.93	.09	.59	1.58	.14	.65
<b>F. SE Stress</b>						
Financial Strain	.67	.05	.71	.44	.05	.50
Financial Difficulty	.77	.06	.76	.44	.06	.42
Financial Adjustment	1.00	.09	.64	1.40	.14	.59
<b>M. Status Change</b>						
Item 1	.54	.05	.58	.59	.05	.67
Item 2	.71	.05	.71	.49	.05	.50
Item 3	.79	.04	.88	.18	.03	.23
Item 4	.77	.04	.83	.27	.03	.32
<b>F. Status Change</b>						
Item 1	.54	.05	.61	.50	.05	.63
Item 2	.69	.05	.72	.44	.05	.48
Item 3	.70	.04	.84	.21	.03	.30
Item 4	.66	.04	.79	.27	.03	.38
<b>M. Work Diss.</b>						
Item 1	.32	.05	.35	.70	.06	.88
Item 2	.62	.05	.66	.50	.05	.56
Item 3	.77	.05	.84	.24	.04	.29
Item 4	.67	.05	.73	.39	.04	.47
<b>F. Work Diss.</b>						
Item 1	.39	.06	.43	.69	.06	.82
Item 2	.72	.05	.77	.37	.05	.42
Item 3	.69	.05	.76	.34	.04	.42
Item 4	.64	.05	.72	.40	.04	.49

*Note.* All factor loadings and error variances were significant to the  $p < .05$  level. Unst. = Unstandardized; St. = Standardized

**Table 4**

*Maximum Likelihood Estimates of Factor Covariances and Error Covariances for the Study 1 Measurement Model*

Parameter	Unst.	SE	St.
Factor Covariances			
M. SE Stress w. M. Status Change	-.34	.06	-.34
M. SE Stress w. M. Work Diss.	.25	.07	.25
M. Status Change w. M. Work Diss.	-.27	.06	-.27
F. SE Stress w. F. Status Change	-.31	.07	-.31
F. SE Stress with F. Work Diss.	.14 <sup>a</sup>	.07	.14
F. Status Change w. F. Work Diss.	-.40	.06	-.40
M. SE Stress w. F. SE Stress	.80	.04	.80
M. SE Stress w. F. Status Change	-.31	.07	-.31
M. SE Stress w. F. Work Diss.	.12 <sup>b</sup>	.07	.12
M. Status Change w. F. SE Stress	-.19	.07	-.19
M. Status Change w. F. Status Change	.53	.05	.53
M. Status Change w. F. Work Diss.	-.28	.07	-.28
M. Work Diss. w. F. SE Stress	.13 <sup>a</sup>	.07	.13
M. Work Diss. w. F. Status Change	-.25	.07	-.25
M. Work Diss. w. F. W. Diss.	.38	.07	.38
Error Covariances			
M. Financial Strain w. F. Financial Strain	.18	.04	.41
M. Financial Diff. w. F. Financial Diff.	.03 <sup>b</sup>	.04	.08
M. Financial Adj. w. F. Financial Adj.	.52	.11	.35
M. Status Change 1 w. F. Status Change 1	.15	.04	.28
M. Status Change 2 w. F. Status Change 2	.07	.04	.15
M. Status Change 3 w. F. Status Change 3	.01 <sup>b</sup>	.02	.07
M. Status Change 4 w. F. Status Change 4	.10	.02	.36
M. Work Diss. 1 w. F. Work Diss. 1	.14	.05	.20
M. Work Diss. 2 w. F. Work Diss. 2	.06 <sup>a</sup>	.04	.14
M. Work Diss. 3 w. F. Work Diss. 3	.11	.03	.39
M. Work Diss. 4 w. F. Work Diss. 4	.09	.03	.24

*Note.* All factors had variances of 1.00 with standard errors of .00. Unstandardized and standardized factor covariances were equivalent because variances of latent factors were fixed to 1 for modeling purposes. M = Mother; F = Father; Unst. = Unstandardized; St. = Standardized.

<sup>a</sup> $p < .1$ ; <sup>b</sup> $p > .1$ ; all other unstandardized estimates are significant to the  $p < .05$  level.

**Table 5***Results from Study 1 Primary Analyses Models*

Predictor	Outcome					
	Mother BSB			Father BSB		
	Unst.	SE	St.	Unst.	SE	St.
<b>Step 1</b>						
M. Time in US	-.01*	.01	-.14	-	-	-
M. Education	.04†	.02	.11	-	-	-
M. SE Stress	-.01	.05	-.02	-	-	-
M. Status Change	.07	.05	.12	-	-	-
M. Work Diss.	.01	.05	.01	-	-	-
F. Time in US	-	-	-	-.01	.01	-.07
F. Education	-	-	-	-.00	.03	-.01
F. SE Stress	-	-	-	-.05	.06	-.07
F Status Change	-	-	-	.02	.06	.03
F. Work Diss.	-	-	-	-.03	.05	-.05
<b>Step 2</b>						
M. Time in US	-.01†	.01	-.12	-	-	-
M. Education	.03	.02	.07	-	-	-
M. SE Stress	-.00	.05	-.01	-	-	-
M. Status Change	.04	.05	.07	-	-	-
M. Work Diss.	-.00	.05	-.00	-	-	-
M. Ch. Orientation	.25**	.09	.19	-	-	-
M. Am. Orientation	.16†	.09	.12	-	-	-
F. Time in US	-	-	-	-.00	.01	-.06
F. Education	-	-	-	-.01	.03	-.02
F. SE Stress	-	-	-	-.03	.06	-.05
F Status Change	-	-	-	.01	.06	.01
F. Work Diss.	-	-	-	-.03	.05	-.04
F. Ch. Orientation	-	-	-	.13	.10	.09
F. Am. Orientation	-	-	-	.10	.10	.07
<b>Step 3</b>						
M. Time in US	-.01†	.01	-.12	-	-	-
M. Education	.03	.02	.07	-	-	-
M. SE Stress	-.01	.05	-.02	-	-	-
M. Status Change	.04	.05	.07	-	-	-
M. Work Diss.	.01	.05	.01	-	-	-
M. Ch. Orientation	.25**	.09	.19	-	-	-
M. Am. Orientation	.11	.11	.08	-	-	-
M. Ch. X M. Am.	.16	.18	.06	-	-	-
F. Time in US	-	-	-	-.00	.01	-.06
F. Education	-	-	-	-.01	.03	-.01

F. SE Stress	-	-	-	-.02	.06	-.04
F Status Change	-	-	-	.01	.06	.02
F. Work Diss.	-	-	-	-.02	.05	-.03
F. Ch. Orientation	-	-	-	.10	.10	.07
F. Am. Orientation	-	-	-	.17	.12	.11
F. Ch. X F. Am.	-	-	-	-.23	.21	-.08

Step 4

M. Time in US	-.01*	.01	-.15	-	-	-
M. Education	.03	.02	.07	-	-	-
M. SE Stress	-.02	.05	-.04	-	-	-
M. Status Change	.05	.05	.08	-	-	-
M. Work Diss.	.00	.05	.01	-	-	-
M. Ch. Orientation	.25**	.09	.18	-	-	-
M. Am. Orientation	.11	.11	.08	-	-	-
M. Ch. X M. Am.	.16	.18	.06	-	-	-
M. Discrimination	.13	.08	.10	-	-	-
F. Time in US	-	-	-	-.00	.01	-.06
F. Education	-	-	-	-.00	.03	-.01
F. SE Stress	-	-	-	-.03	.06	-.05
F Status Change	-	-	-	.01	.06	.01
F. Work Diss.	-	-	-	-.02	.05	-.04
F. Ch. Orientation	-	-	-	.10	.10	.07
F. Am. Orientation	-	-	-	.17	.12	.11
F. Ch. X F. Am.	-	-	-	-.23	.21	-.08
F. Discrimination	-	-	-	.03	.09	.02

*Note.* BSB = Bicultural Socialization Beliefs; M. = Mother; F. = Father; Ch. = Chinese; Am. = American; Unst. = Unstandardized; St. = Standardized. BSB were measured at Wave 2, all other variables were measured at Wave 1.

† $p < .1$ ; \* $p < .05$ ; \*\* $p < .01$

**Table 6***Bivariate Correlations for Study 2 Variables*

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. M. BSB	-														
2. F. BSB	.38**	-													
3. M. Warmth	.17**	.15*	-												
4. F. Warmth	.02	.11	.45**	-											
5. M. Reasoning	.05	.04	.44**	.30**	-										
6. F. Reasoning	-.08	.14*	.31**	.67**	.44**	-									
7. M. Democratic	.16**	.06	.35**	.27**	.45**	.32**	-								
8. F. Democratic	.07	.12*	.26**	.43**	.30**	.45**	.32**	-							
9. M. Hostility	.11	-.05	-.13*	-.09	-.12*	-.03	-.06	-.00	-						
10. F. Hostility	.03	.04	-.08	-.25**	-.10	-.15*	-.12	-.06	.34**	-					
11. M. Punitive	.06	-.12	-.12*	-.06	-.20**	-.07	.04	.03	.37**	.16**	-				
12. F. Punitive	-.04	-.07	-.11	-.22**	-.22**	-.23**	-.02	.04	.20**	.39**	.35**	-			
13. M. Psy. Control	.16**	-.03	-.20**	-.17**	-.18**	-.05	-.00	-.05	.46**	.19**	.45**	.22**	-		
14. F. Psy. Control	.03	.12	-.09	-.21**	-.10	-.18**	-.02	-.06	.21**	.48**	.16**	.51**	.25**	-	
15. Y.A. Dep.	.04	-.02	.06	.03	-.08	.06	-.01	.08	.09	.00	.10	.06	.09	.03	-
M	3.78	3.85	5.73	5.41	3.97	3.71	3.49	3.40	2.64	2.56	1.73	1.76	1.30	1.31	.63
SD	.69	.70	1.03	1.15	.79	.87	.88	.84	.83	.89	.65	.68	.28	.29	.45

*Note.* BSB = Bicultural Socialization Beliefs; M. = Mother; F. = Father; Y.A. = Young Adult; Psy. Control = Psychological Control; Dep. = Depressive Symptoms Young Adult Depressive Symptoms were measured at Wave 3 whereas all other variables were measured at Wave 2.

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

**Table 7**

*Maximum Likelihood Estimates of Factor Loadings and Residuals for the Study 2 Measurement Model for Supportive Parenting Behaviors*

Indicator	Factor Loadings			Error Variances		
	Unst.	SE	St.	Unst.	SE	St.
<u>M. Supportive Parenting</u>						
M. Warmth	1.00 <sup>a</sup>	.00	.59	.69	.07	.65
M. Reasoning	.97	.14	.75	.27	.05	.44
M. Democratic	.86	.12	.59	.50	.05	.65
<u>F. Supportive Parenting</u>						
F. Warmth	1.00 <sup>a</sup>	.00	.77	.55	.09	.40
F. Reasoning	.85	.09	.87	.18	.06	.24
F. Democratic	.49	.06	.53	.51	.05	.72

*Note.* M. = Mother; F. = Father; Unst. = Unstandardized; St. = Standardized

<sup>a</sup> Not tested for significance. All unstandardized estimates are significant to the  $p < .05$  level.

**Table 8**

*Maximum Likelihood Estimates of Factor Variances, Covariances and Error Covariances for the Study 2 Measurement Model for Supportive Parenting Behaviors*

Parameter	Unst.	SE	St.
Factor Variances and Covariances			
Mother Supportive Parenting	.37	.08	1.00
Father Supportive Parenting	.81	.13	1.00
M. Supportive Parenting w. F. Supportive Parenting	.33	.06	.60
Error Covariances			
M. Warmth w. F. Warmth	.23	.06	.38
M. Reasoning w. F. Reasoning	.04 <sup>a</sup>	.03	.17
M. Democratic w. F. Democratic	.08	.04	.15

*Note.* M = Mother; F = Father; Unst. = Unstandardized; St. = Standardized

<sup>a</sup>  $p > .05$ . All other unstandardized estimates are significant to the  $p < .05$  level.



**Table 9***Indirect Effects from the Models with Supportive Parenting Behaviors as Mediator*

Model	Unst.	95% CI	p-value
<u>Actor-Only</u>			
M. BSB to M. Behaviors to Y.A. Dep.	-.02	[-.07, .01]	.260
F. BSB to F. Behaviors to Dep.	.02	[-.00, .06]	.246
<u>Actor-Partner</u>			
Total M. BSB to Y.A. Dep.	-.03	[-.08, .01]	.196
M. BSB to M. Behaviors to Y.A. Dep.	-.01	[-.07, .01]	.363
M. BSB to F. Behaviors to Y.A. Dep.	-.01	[-.06, .00]	.334
Total F. BSB to Y.A. Dep.	.02	[-.01, .06]	.322
F. BSB to F. Behaviors to Y.A. Dep.	.02	[-.00, .07]	.210
F. BSB to M. Behaviors to Y.A. Dep.	-.01	[-.05, .01]	.628

*Note.* Unst. = Unstandardized; CI = Confidence Interval; BSB = Bicultural Socialization Beliefs; M. = Mother; F. = Father; Y.A. = Young Adult; Dep. = Depressive Symptoms

**Table 10**

*Maximum Likelihood Estimates of Factor Loadings and Residuals for the Study 2 Measurement Model for Unsupportive Parenting Behaviors*

Indicator	Factor Loadings			Error Variances		
	Unst.	SE	St.	Unst.	SE	St.
<u>M. Unsupportive Parenting</u>						
M. Hostility	1.00 <sup>a</sup>	.00	.62	.42	.05	.59
M. Punitive	.76	.11	.59	.27	.03	.65
M. Psychological Control	.42	.06	.75	.04	.01	.79
<u>F. Unsupportive Parenting</u>						
F. Hostility	1.00 <sup>a</sup>	.00	.62	.50	.06	.65
F. Punitive	.85	.11	.65	.27	.03	.58
F. Psychological Control	.44	.06	.44	.03	.01	.38

*Note.* M. = Mother; F. = Father; Unst. = Unstandardized; St. = Standardized

<sup>a</sup> Not tested for significance. All unstandardized estimates are significant to the  $p < .05$  level.

**Table 11**

*Maximum Likelihood Estimates of Factor Variances, Covariances and Error Covariances for the Study 2 Measurement Model for Unsupportive Parenting Behaviors*

Parameter	Unst.	SE	St.
Factor Variances and Covariances			
Mother Unsupportive Parenting	.26	.06	1.00
Father Unsupportive Parenting	.28	.06	1.00
M. Unsupportive Parenting w. F. Unsupportive Parenting	.11	.03	.43
Error Covariances			
M. Hostility w. F. Hostility	.12	.04	.27
M. Punitive w. F. Punitive	.09	.02	.33
M. Psychological Control w. F. Psychological Control	.00 <sup>a</sup>	.00	.02

*Note.* M = Mother; F = Father; Unst. = Unstandardized; St. = Standardized

<sup>a</sup>  $p > .05$ . All other unstandardized estimates are significant to the  $p < .05$  level.

**Table 12***Indirect Effects from Models with Unsupportive Parenting Behaviors as Mediator*

Model	Unst.	95% CI	p-value
<u>Actor-Only</u>			
M. BSB to M. Behaviors to Y.A. Dep.	.02	[-.00, .06]	.235
F. BSB to F. Behaviors to Y.A. Dep.	-.00	[-.03, .01]	.802
<u>Actor-Partner</u>			
Total M. BSB to Y.A. Dep.	.03	[-.01, .08]	.224
M. BSB to M. Behaviors to Y.A. Dep.	.02	[-.00, .08]	.214
M. BSB to F. Behaviors to Y.A. Dep.	.00	[-.01, .02]	.921
Total F. BSB to Y.A. Dep.	-.02	[-.07, .01]	.308
F. BSB to F. Behaviors to Y.A. Dep.	-.00	[-.03, .01]	.852
F. BSB to M. Behaviors to Y.A. Dep.	-.02	[-.07, .00]	.279

*Note.* Unst. = Unstandardized; CI = Confidence Interval; BSB = Bicultural Socialization Beliefs; M. = Mother; F. = Father; Y.A. = Young Adult; Dep. = Depressive Symptoms

**Table 13***Bivariate Correlations for Study 3 Variables*

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. W2 M. BSB	-											
2. W2 F. BSB	.38**	-										
3. W3 M. BSB	.40**	.24**	-									
4. W3 F. BSB	.30**	.47**	.40**	-								
5. W2 M-A Conflict (P)	.32**	.18**	.33**	.20**	-							
6. W2 F-A Conflict (P)	.20**	.19**	.16*	.21**	.51**	-						
7. W3 M-A Conflict (P)	.17*	.06	.30**	.15*	.46**	.35**	-					
8. W3 F-A Conflict (P)	.24**	.18**	.22**	.24**	.39**	.49**	.61**	-				
9. W2 M-A Conflict (A)	.11*	.09	.20**	.18**	.26**	.20**	.37**	.30**	-			
10. W2 F-A Conflict (A)	.12*	.12	.12	.09	.28**	.25**	.35**	.33**	.81**	-		
11. W3 M-A Conflict (A)	.09	.12	.15*	.20**	.19**	.25**	.37**	.34**	.53**	.41**	-	
12. W3 F-A Conflict (A)	.11	.13*	.02	.17**	.19**	.19**	.28**	.35**	.39**	.50**	.80**	-
M	3.78	3.85	3.85	3.88	2.44	2.49	2.34	2.34	2.81	2.67	2.46	2.34
SD	.69	.70	.72	.67	.72	.69	.71	.76	.90	.90	.89	.89

*Note.* (P) indicates a parent-report variable whereas (A) indicates an adolescent/young adult-report variable. BSB = Bicultural Socialization Beliefs; M. = Mothers; F. = Fathers; M-A = Mother-Adolescent; F-A = Father-Adolescent.

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

**Table 14***Fit Indices and Model Comparisons for Study 3 Parent-report Models*

Model	CFI	RMSEA [90% CI]	SRMR	$\chi^2$ (df), <i>p</i> -value	$\Delta\chi^2$	$\Delta$ df
1. Auto-regressive Model	.91	.084 [.058, .111]	.086	43.53(12), <i>p</i> < .001	-	-
2. Cross-Lag Model	.96	.067 [.034, .102]	.056	21.696(8), <i>p</i> = .006	-	-
3. Conflict → BSB Constrained	.96	.062 [.029, .095]	.056	21.820(9), <i>p</i> = .010	.124	1
4. BSB → Conflict Constrained	.95	.072 [.041, .104]	.059	26.361(9), <i>p</i> = .002	4.665*	1

*Note.* Model comparisons for models 3 and 4 were conducted with model 2.

\**p* < .05

**Table 15***Results from Study 3 Parent-report Auto-regressive and Cross-lag Models*

Model and Path	Unst.	SE	St.
<u>Auto-regressive Model</u>			
W2 M. BSB → W3 M. BSB	.36*	.06	.35
W2 M-A Conflict → W3 M-A Conflict	.37*	.05	.38
W2 F. BSB → W3 F. BSB	.40*	.05	.42
W2 F-A Conflict → W3 F-A Conflict	.41*	.06	.39
W2 M. BSB w. W2 M-A Conflict	.16*	.03	.33
W3 M. BSB w. W3 M-A Conflict	.10*	.03	.23
W2 F. BSB w. W2 F-A Conflict	.09*	.03	.19
W3 F. BSB w. W3 F-A Conflict	.06*	.03	.15
W3 M. BSB w. W3 F. BSB	.13*	.03	.32
W3 M-A Conflict w. W3 F-A Conflict	.24*	.03	.55
<u>Cross-Lag Model</u>			
W2 M. BSB → W3 M. BSB	.30*	.06	.29
W2 M-A Conflict → W3 M-A Conflict	.41*	.06	.43
W2 M. BSB → W3 M-A Conflict	-.04	.06	-.04
W2 M-A Conflict → W3 M. BSB	.20*	.06	.20
W2 F. BSB → W3 F. BSB	.39*	.05	.41
W2 F-A Conflict → W3 F-A Conflict	.42*	.06	.40
W2 F. BSB → W3 F-A Conflict	.11	.06	.10
W2 F-A Conflict → W3 F. BSB	.17*	.06	.18
W2 M. BSB w. W2 M-A Conflict	.16*	.03	.32
W3 M. BSB w. W3 M-A Conflict	.08*	.03	.20
W2 F. BSB w. W2 F-A Conflict	.09*	.03	.18
W3 F. BSB w. W3 F-A Conflict	.04	.03	.11
W3 M. BSB w. W3 F. BSB	.12*	.03	.31
W3 M-A Conflict w. W3 F-A Conflict	.23*	.03	.55

*Note.* BSB = Bicultural Socialization Beliefs; M. = Mothers; F. = Fathers; M-A = Mother-Adolescent; F-A = Father-Adolescent; Unst. = Unstandardized; St. = Standardized

\* $p < .05$

**Table 16***Results from Study 3 Parent-report Constrained Models*

Model and Path	Unst.	SE	St.
<u>Conflict → BSB Constrained Model</u>			
W2 M. BSB → W3 M. BSB	.31*	.06	.30
W2 M-A Conflict → W3 M-A Conflict	.41*	.06	.42
W2 M. BSB → W3 M-A Conflict	-.04	.06	-.04
W2 M-A Conflict → W3 M. BSB	.18*	.04	.18
W2 F. BSB → W3 F. BSB	.39*	.05	.41
W2 F-A Conflict → W3 F-A Conflict	.41*	.06	.40
W2 F. BSB → W3 F-A Conflict	.11	.06	.10
W2 F-A Conflict → W3 F. BSB	.18*	.04	.19
W2 M. BSB w. W2 M-A Conflict	.16*	.03	.32
W3 M. BSB w. W3 M-A Conflict	.08*	.03	.20
W2 F. BSB w. W2 F-A Conflict	.09*	.03	.18
W3 F. BSB w. W3 F-A Conflict	.04	.03	.11
W3 M. BSB w. W3 F. BSB	.12*	.03	.31
W3 M-A Conflict w. W3 F-A Conflict	.23*	.03	.55
<u>BSB → Conflict Constrained Model</u>			
W2 M. BSB → W3 M. BSB	.32*	.06	.31
W2 M-A Conflict → W3 M-A Conflict	.39*	.06	.40
W2 M. BSB → W3 M-A Conflict	.03	.04	.03
W2 M-A Conflict → W3 M. BSB	.19*	.06	.19
W2 F. BSB → W3 F. BSB	.39*	.05	.40
W2 F-A Conflict → W3 F-A Conflict	.43*	.06	.41
W2 F. BSB → W3 F-A Conflict	.03	.04	.03
W2 F-A Conflict → W3 F. BSB	.17*	.06	.18
W2 M. BSB w. W2 M-A Conflict	.16*	.03	.32
W3 M. BSB w. W3 M-A Conflict	.08*	.03	.20
W2 F. BSB w. W2 F-A Conflict	.09*	.03	.18
W3 F. BSB w. W3 F-A Conflict	.05	.03	.12
W3 M. BSB w. W3 F. BSB	.12*	.03	.31
W3 M-A Conflict w. W3 F-A Conflict	.23*	.03	.54

*Note.* BSB = Bicultural Socialization Beliefs; M. = Mothers; F. = Fathers; M-A = Mother-Adolescent; F-A = Father-Adolescent; Unst. = Unstandardized; St. = Standardized

\* $p < .05$



**Table 17***Fit Indices and Model Comparisons for Study 3 Adolescent-report Models*

Model	CFI	RMSEA [90% CI]	SRMR	$\chi^2$ (df), <i>p</i> -value	$\Delta\chi^2$	$\Delta$ df
1. Auto-regressive Model	.98	.056 [.027, .085]	.052	26.717(12), <i>p</i> = .009	-	-
2. Cross-Lag Model	.98	.064 [.031, .099]	.040	20.673(8), <i>p</i> = .008	-	-
3. Conflict → BSB Constrained	.98	.060 [.027, .093]	.040	21.497(9), <i>p</i> = .011	.824	1
4. BSB → Conflict Constrained	.98	.060 [.028, .093]	.040	21.591(9), <i>p</i> = .010	.918	1

*Note.* Model comparisons for models 3 and 4 were conducted with model 2.

**Table 18***Results from Study 3 Adolescent-report Auto-regressive and Cross-lag Models*

Model and Path	Unst.	SE	St.
<u>Auto-regressive Model</u>			
W2 M. BSB → W3 M. BSB	.37*	.06	.36
W2 M-A Conflict → W3 M-A Conflict	.56*	.04	.56
W2 F. BSB → W3 F. BSB	.40*	.05	.43
W2 F-A Conflict → W3 F-A Conflict	.52*	.04	.52
W2 M. BSB w. W2 M-A Conflict	.06	.04	.10
W3 M. BSB w. W3 M-A Conflict	.03	.03	.05
W2 F. BSB w. W2 F-A Conflict	.06	.04	.10
W3 F. BSB w. W3 F-A Conflict	.05	.03	.11
W3 M. BSB w. W3 F. BSB	.12*	.03	.31
W3 M-A Conflict w. W3 F-A Conflict	.47*	.04	.82
<u>Cross-Lag Model</u>			
W2 M. BSB → W3 M. BSB	.36*	.06	.35
W2 M-A Conflict → W3 M-A Conflict	.57*	.04	.56
W2 M. BSB → W3 M-A Conflict	-.02	.04	-.01
W2 M-A Conflict → W3 M. BSB	.10*	.05	.12
W2 F. BSB → W3 F. BSB	.41*	.05	.43
W2 F-A Conflict → W3 F-A Conflict	.52*	.04	.51
W2 F. BSB → W3 F-A Conflict	.04	.05	.03
W2 F-A Conflict → W3 F. BSB	.05	.04	.07
W2 M. BSB w. W2 M-A Conflict	.06	.04	.10
W3 M. BSB w. W3 M-A Conflict	.03	.03	.05
W2 F. BSB w. W2 F-A Conflict	.06	.04	.10
W3 F. BSB w. W3 F-A Conflict	.05	.03	.11
W3 M. BSB w. W3 F. BSB	.12*	.03	.30
W3 M-A Conflict w. W3 F-A Conflict	.48*	.04	.82

*Note.* BSB = Bicultural Socialization Beliefs; M. = Mothers; F. = Fathers; M-A = Mother-Adolescent; F-A = Father-Adolescent; Unst. = Unstandardized; St. = Standardized

\* $p < .05$

**Table 19***Results from Study 3 Adolescent-report Constrained Models*

Model and Path	Unst.	SE	St.
<u>Conflict → BSB Constrained Model</u>			
W2 M. BSB → W3 M. BSB	.36*	.06	.35
W2 M-A Conflict → W3 M-A Conflict	.57*	.04	.56
W2 M. BSB → W3 M-A Conflict	-.01	.04	-.01
W2 M-A Conflict → W3 M. BSB	.07*	.03	.09
W2 F. BSB → W3 F. BSB	.40*	.05	.42
W2 F-A Conflict → W3 F-A Conflict	.52*	.04	.52
W2 F. BSB → W3 F-A Conflict	.04	.05	.03
W2 F-A Conflict → W3 F. BSB	.07*	.03	.10
W2 M. BSB w. W2 M-A Conflict	.06	.04	.10
W3 M. BSB w. W3 M-A Conflict	.03	.03	.05
W2 F. BSB w. W2 F-A Conflict	.06	.04	.10
W3 F. BSB w. W3 F-A Conflict	.05	.03	.10
W3 M. BSB w. W3 F. BSB	.12*	.03	.30
W3 M-A Conflict w. W3 F-A Conflict	.47*	.04	.82
<u>BSB → Conflict Constrained Model</u>			
W2 M. BSB → W3 M. BSB	.37*	.06	.36
W2 M-A Conflict → W3 M-A Conflict	.57*	.04	.56
W2 M. BSB → W3 M-A Conflict	.01	.04	.01
W2 M-A Conflict → W3 M. BSB	.10*	.05	.12
W2 F. BSB → W3 F. BSB	.40*	.05	.42
W2 F-A Conflict → W3 F-A Conflict	.52*	.04	.52
W2 F. BSB → W3 F-A Conflict	.01	.04	.01
W2 F-A Conflict → W3 F. BSB	.05	.04	.07
W2 M. BSB w. W2 M-A Conflict	.06	.04	.09
W3 M. BSB w. W3 M-A Conflict	.02	.03	.05
W2 F. BSB w. W2 F-A Conflict	.06	.04	.10
W3 F. BSB w. W3 F-A Conflict	.05	.03	.11
W3 M. BSB w. W3 F. BSB	.12*	.03	.30
W3 M-A Conflict w. W3 F-A Conflict	.48*	.04	.82

*Note.* BSB = Bicultural Socialization Beliefs; M. = Mothers; F. = Fathers; M-A = Mother-Adolescent; F-A = Father-Adolescent; Unst. = Unstandardized; St. = Standardized

\* $p < .05$

**Table 20**

*Bivariate Correlations for Study 4 Variables Involved in the Adolescent Depressive Symptoms Models.*

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1. M. BSB	-												
2. F. BSB	.38**	-											
3. M. Acad. Pressure	.25**	.09	-										
4. F. Acad. Pressure	.13*	.14*	.41**	-									
5. M. BMD	.18**	.06	-.01	-.02	-								
6. F. BMD	.17**	.14*	-.03	.05	.42**	-							
7. M. Financial Diff.	.06	-.01	.08	.08	.02	-.01	-						
8. F. Financial Diff.	-.00	.01	.10	.01	.06	.06	.51**	-					
9. M. Financial Strain	.12*	.07	.05	.03	.23**	.09	.55**	.33**	-				
10. F. Financial Strain	.13*	.12*	.05	.00	.19**	.15*	.34**	.53**	.52**	-			
11. M. Financial Adj.	.20**	.08	.07	-.04	.21**	.08	.40**	.23**	.43**	.29**	-		
12. F. Financial Adj.	.15*	.14*	.06	.01	.12	.16**	.29**	.44**	.30**	.48**	.52**	-	
13. A. Dep.	.00	-.02	.04	.07	.08	.13*	.04	-.00	.08	.07	.04	.08	-
M	3.78	3.85	2.79	2.86	2.72	2.81	1.68	1.72	2.77	2.81	1.24	1.26	.71
SD	.69	.70	.77	.84	.76	.74	.87	.88	.99	.98	1.53	1.60	.46

*Note.* All variables measured at Wave 2. M. = Mother; F. = Father; A. = Adolescent; BSB = Bicultural Socialization Beliefs; BMD = Bicultural Management Difficulty; Dep. = Depressive Symptoms

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

**Table 21***Results from Study 4 Models with Adolescent Depressive Symptoms as Outcome*

Model and Path	Unst.	SE	St.
<b>Model 1 – Academic Pressure</b>			
M. Bicultural Socialization Beliefs	.01	.04	.01
F. Bicultural Socialization Beliefs	-.01	.04	-.02
<b>Model 2 – Academic Pressure</b>			
M. Bicultural Socialization Beliefs	-.01	.04	-.01
F. Bicultural Socialization Beliefs	-.01	.04	-.02
M. Academic Pressure	.03	.04	.04
F. Academic Pressure	.03	.04	.05
<b>Model 3 – Academic Pressure</b>			
M. Bicultural Socialization Beliefs	-.01	.05	-.02
F. Bicultural Socialization Beliefs	-.01	.04	-.02
M. Academic Pressure	.03	.04	.05
F. Academic Pressure	.02	.04	.04
M. Interaction	-.00	.05	-.00
F. Interaction	-.04	.04	-.05
<b>Model 1 – Bicultural Management Difficulty</b>			
M. Bicultural Socialization Beliefs	.00	.04	.01
F. Bicultural Socialization Beliefs	-.01	.04	-.02
<b>Model 2 – Bicultural Management Difficulty</b>			
M. Bicultural Socialization Beliefs	-.01	.04	-.02
F. Bicultural Socialization Beliefs	-.02	.04	-.03
M. Bicultural Management Difficulty	.02	.04	.04
F. Bicultural Management Difficulty	.07	.04	.11
<b>Model 3 – Bicultural Management Difficulty</b>			
M. Bicultural Socialization Beliefs	-.03	.05	-.04
F. Bicultural Socialization Beliefs	-.01	.04	-.02
M. Bicultural Management Difficulty	.03	.04	.05
F. Bicultural Management Difficulty	.07	.04	.11
M. Interaction	-.07	.05	-.09
F. Interaction	.05	.05	.06
<b>Model 1 – Socioeconomic Stress</b>			
M. Bicultural Socialization Beliefs	.00	.05	.00
F. Bicultural Socialization Beliefs	.00	.04	.00
<b>Model 2 – Socioeconomic Stress</b>			
M. Bicultural Socialization Beliefs	-.01	.05	-.02
F. Bicultural Socialization Beliefs	.00	.04	.00
M. Socioeconomic Stress	.10	.08	.12
F. Socioeconomic Stress	.02	.08	.03
<b>Model 3 – Socioeconomic Stress</b>			
M. Bicultural Socialization Beliefs	-.02	.05	-.04
F. Bicultural Socialization Beliefs	.02	.05	.03
M. Socioeconomic Stress	.11	.08	.14
F. Socioeconomic Stress	-.00	.08	-.00
M. Interaction	-.20*	.08	-.17
F. Interaction	.06	.08	.06

*Note.* M.=Mother; F.=Father; Unst. = Unstandardized; St. = Standardized. \* $p < .05$

**Table 22**

*Maximum Likelihood Estimates of Factor Loadings and Residuals for the Study 4 Measurement Model for Socioeconomic Stress*

Indicator	Factor Loadings			Error Variances		
	Unst.	SE	St.	Unst.	SE	St.
<b>M. Socioeconomic Stress</b>						
M. Financial Diff.	1.00	.00	.72	.37	.05	.48
M. Financial Strain	1.22	.15	.77	.40	.07	.41
M. Financial Adj.	1.36	.17	.56	1.62	.16	.69
<b>F. Socioeconomic Stress</b>						
F. Financial Diff.	1.00	.00	.70	.40	.05	.51
F. Financial Strain	1.20	.14	.76	.40	.07	.42
F. Financial Adj.	1.64	.19	.63	1.56	.17	.60

*Note.* M. = Mother; F. = Father; Unst. = Unstandardized; St. = Standardized

<sup>a</sup> Not tested for significance. All unstandardized estimates are significant to the  $p < .05$  level.

**Table 23**

*Maximum Likelihood Estimates of Factor Variances, Covariances and Error Covariances for the Study 4 Measurement Model for Socioeconomic Stress at Wave 2*

Parameter	Unst.	SE	St.
	Factor Variances and Covariances		
Mother Socioeconomic Stress	.39	.07	1.00
Father Socioeconomic Stress	.38	.07	1.00
M. Socioeconomic Stress w. F. Socioeconomic Stress	.25	.05	.64
	Error Covariances		
M. Financial Diff. w. F. Financial Diff.	.16	.04	.43
M. Financial Strain w. F. Financial Strain	.14	.05	.36
M. Financial Adj. w. F. Financial Adj.	.73	.13	.46

*Note.* M. = Mother; F. = Father. All unstandardized estimates are significant to the  $p < .05$  level.

**Table 24**

*Simple slopes for the Interaction Between Mother's Bicultural Socialization Beliefs and Mother's Socioeconomic Stress on Adolescent Depressive Symptoms in Study 4*

Condition	Unst	SE	<i>p</i> -value
Low socioeconomic stress	.09	.06	.129
Average socioeconomic stress	-.02	.05	.595
High socioeconomic stress	-.14	.07	.044

*Note.* Unst. = Unstandardized



**Table 25***Bivariate Correlations for Study 4 Variables Involved in the Unsupportive Parenting Behaviors Models.*

Variable	1	2	3	4	5	M	SD
1. Bicultural Socialization Beliefs	-	.14*	.04	-.07	.12	3.85	.70
2. Bicultural Management Difficulty	.18**	-	.07	.06	.14*	2.81	.74
3. Parental Hostility	.11	.15**	-	.39**	.48**	2.56	.89
4. Punitive Parenting	.06	-.03	.37**	-	.51**	1.76	.68
5. Psychological Control	.16**	.09	.46**	.45**	-	1.31	.29
M	3.78	2.72	2.64	1.73	1.30	-	-
SD	.69	.76	.83	.65	.28	-	-

*Note.* All variables measured at Wave 2. Values below the diagonal are for mothers whereas values above the diagonal are for fathers.

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

**Table 26**

*Results from Study 4 Moderation Models with Unsupportive Parenting Behaviors as Outcome.*

Predictor	Outcome					
	Mother Unsupportive			Father Unsupportive		
	Unst.	SE	St.	Unst.	SE	St.
<b>Step 1</b>						
M. BSB	.14*	.05	.19	-	-	-
F. BSB	-	-	-	.10	.05	.13
<b>Step 2</b>						
M. BSB	.13*	.05	.18	-	-	-
M. BMD	.06	.05	.09	-	-	-
F. BSB	-	-	-	.08	.05	.11
F. BMD	-	-	-	.10*	.05	.14
<b>Step 3</b>						
M. BSB	.12*	.05	.16	-	-	-
M. BMD	.06	.05	.09	-	-	-
M. Interaction	-.05	.05	-.07	-	-	-
F. BSB	-	-	-	.07	.05	.10
F. BMD	-	-	-	.10*	.05	.14
F. Interaction	-	-	-	-.05	.06	-.06

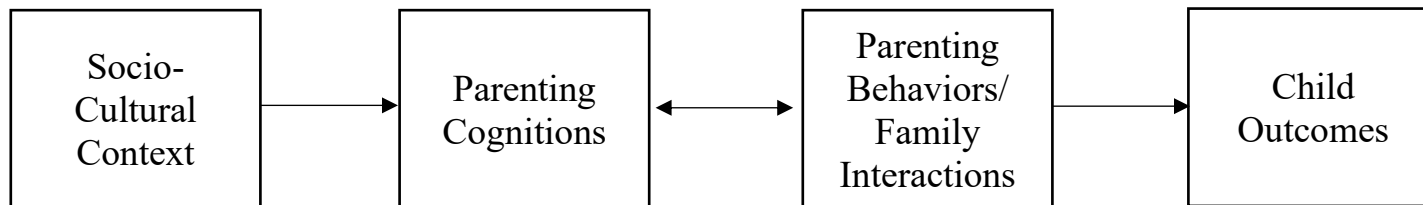
*Note.* M. = Mother; F. = Father; Unst. = Unstandardized; St. = Standardized; BSB = Bicultural Socialization Beliefs; BMD = Bicultural Management Difficulty.

\* $p < .05$

## FIGURES

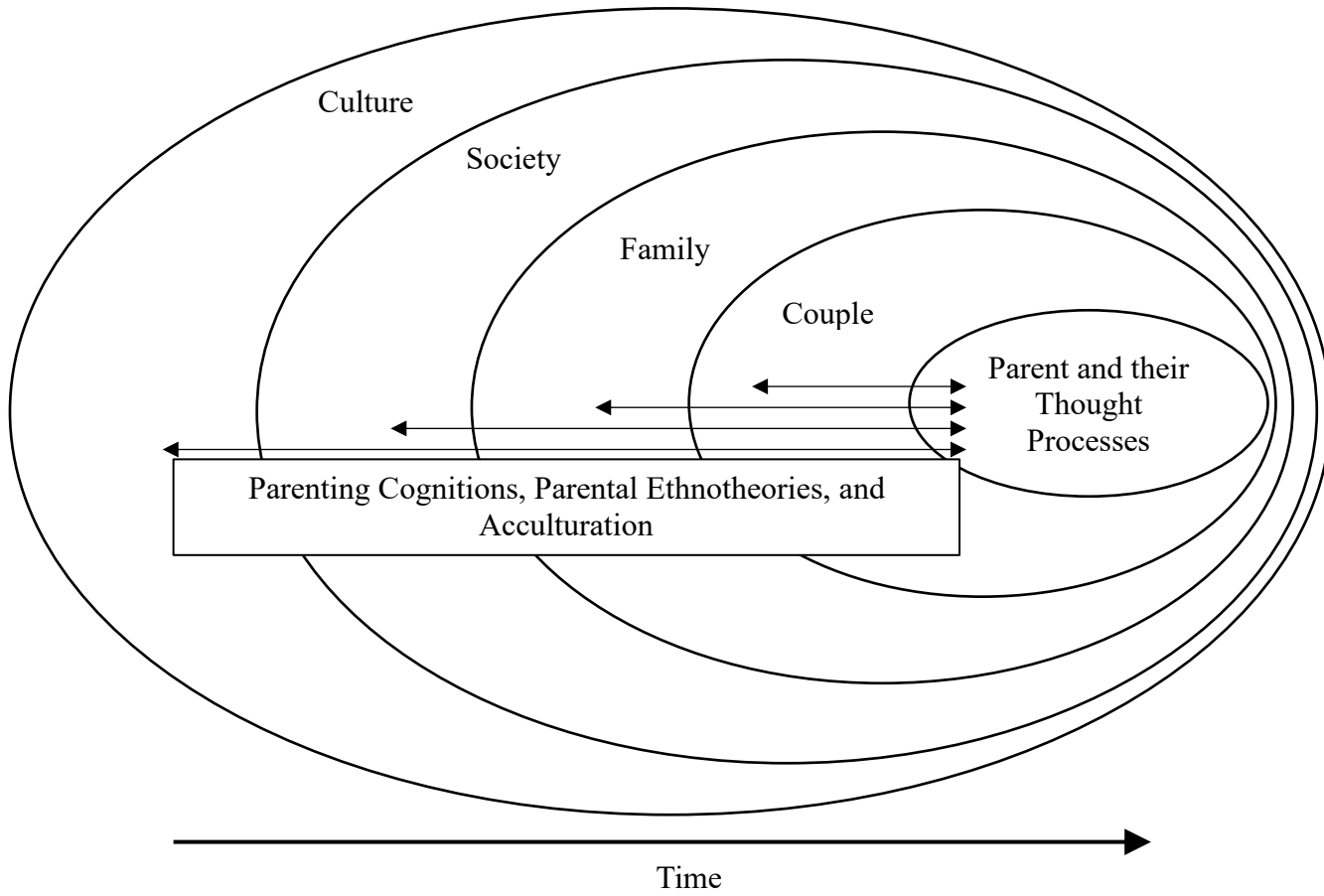
**Figure 1**

*Parenting Cascade from Sociocultural Context to Child Outcomes.*



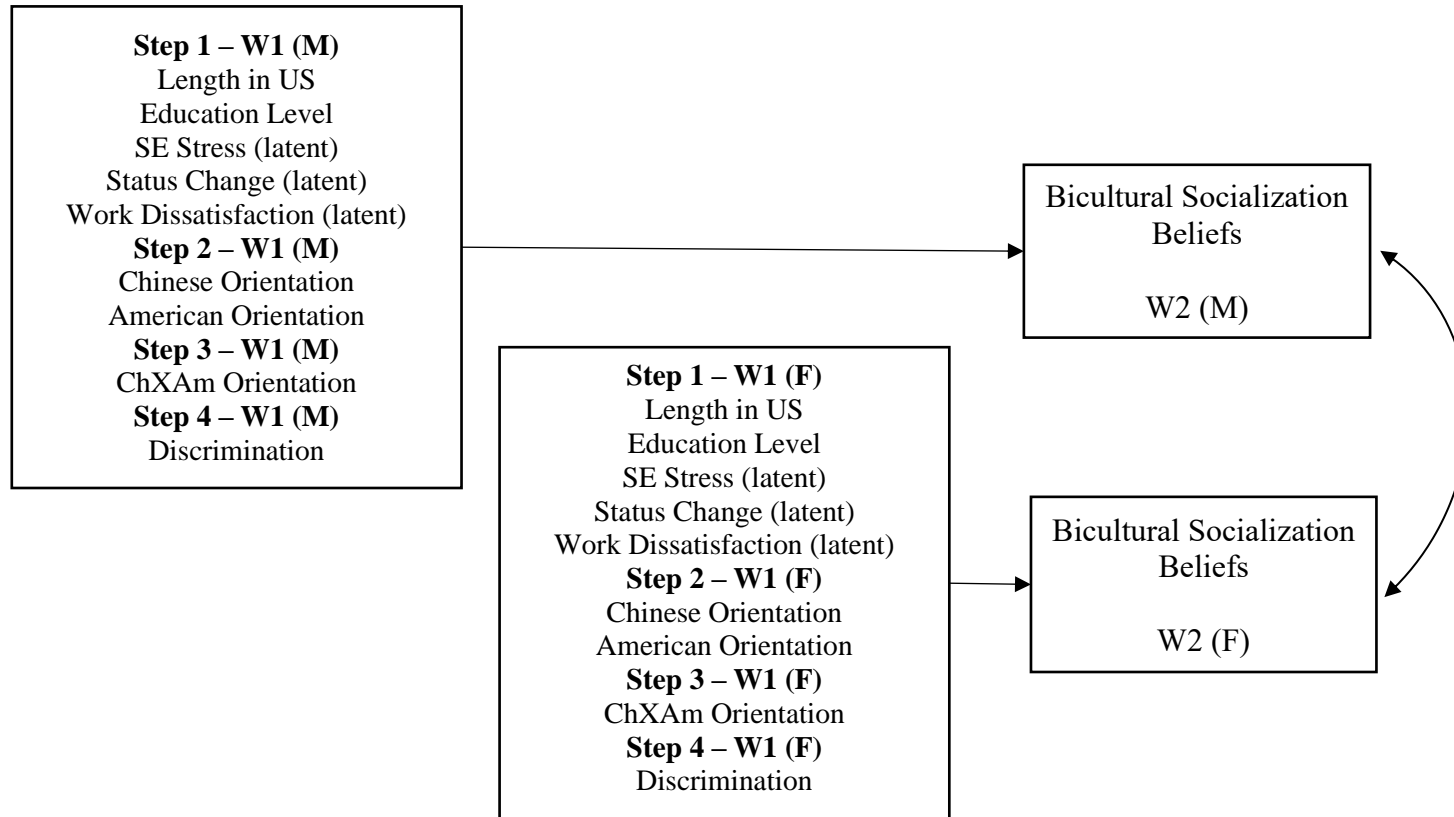
**Figure 2**

*Theoretical Model for the Proposed Work.*



**Figure 3**

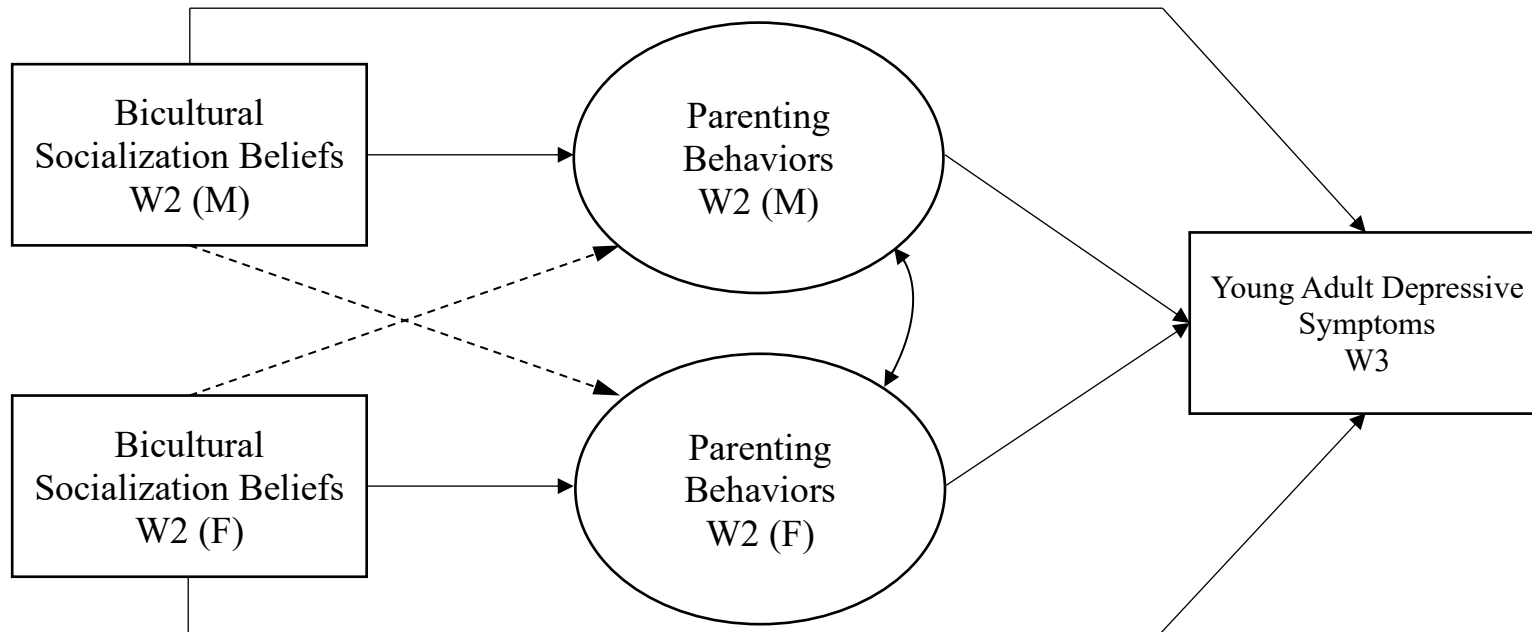
*Conceptual Model for Study 1*



*Note.* All variables are specific to each parent. Socioeconomic Stress, Status Change, and Work Dissatisfaction were all modeled as latent variables. SE = socioeconomic; ChXAm = Chinese and American interaction; W1 = Wave 1; W2 = Wave 2; M = Mother, F= Father

**Figure 4**

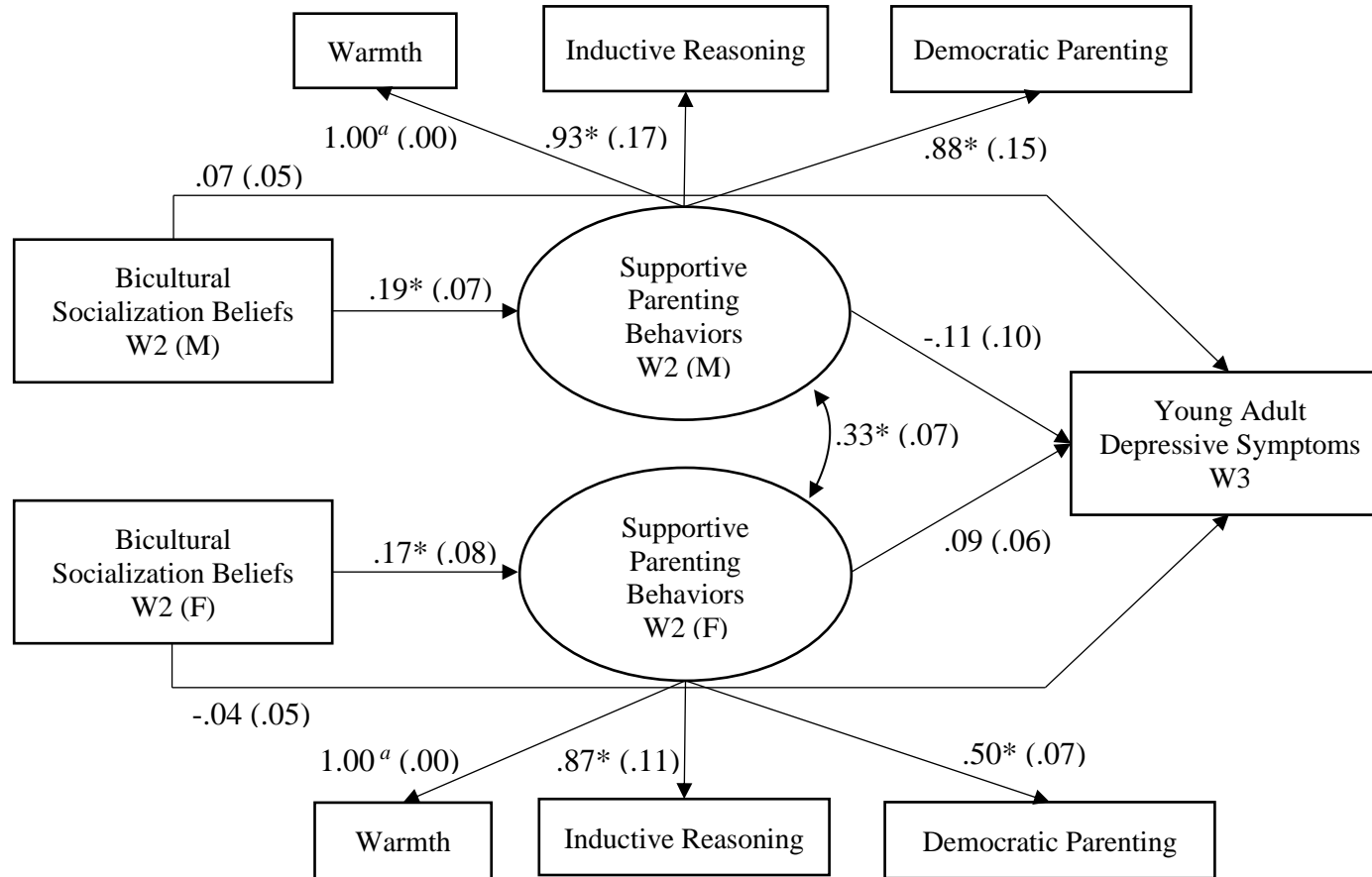
*Conceptual Model for Study 2.*



*Note.* Solid lines indicate actor effects whereas dotted lines indicate partner effects. Parenting Behaviors were modeled as latent variables. M = Mother; F = Father; W2 = Wave 2; W3 = Wave 3

**Figure 5**

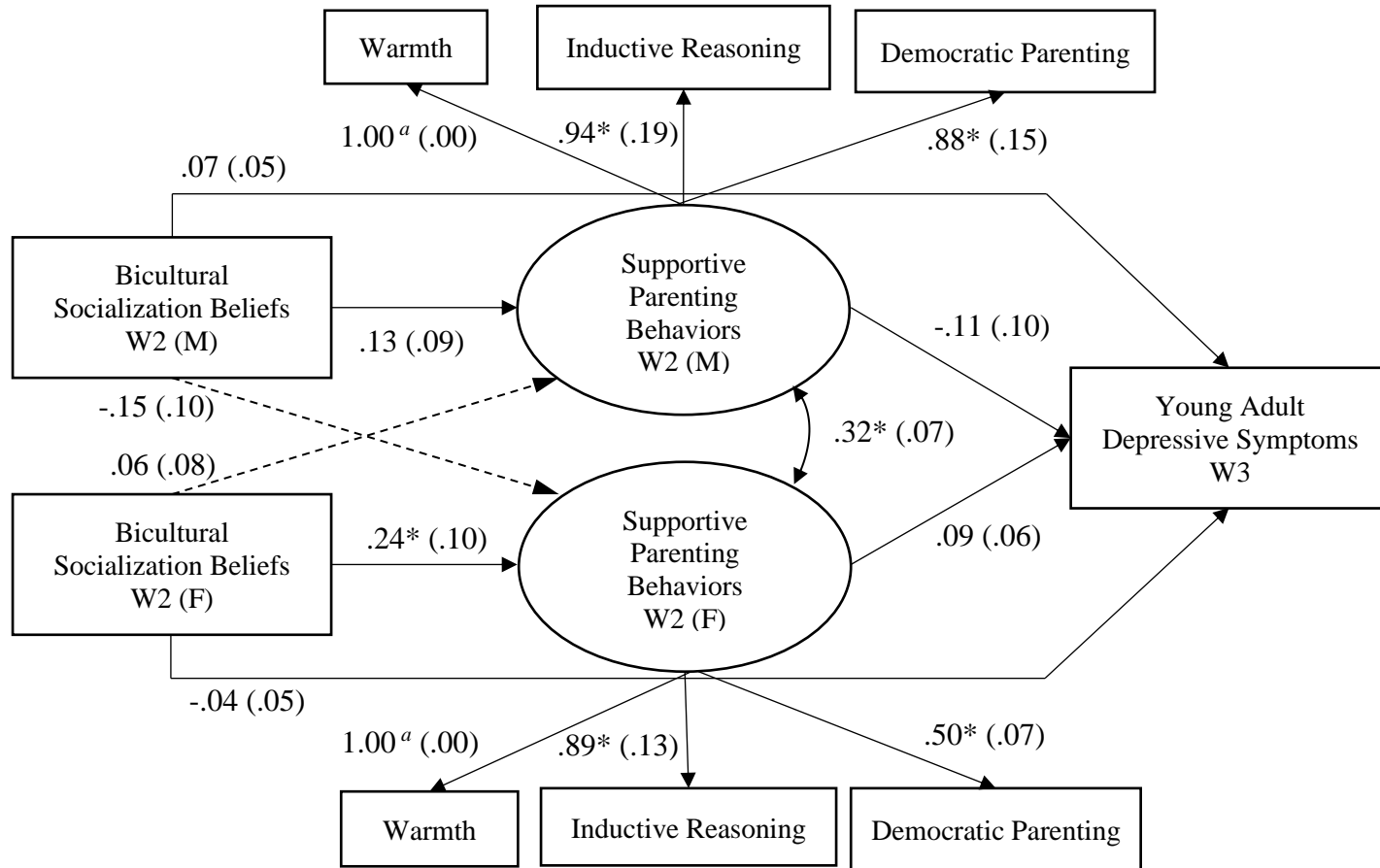
*Direct Effects from the Actor-only Mediation Model with Supportive Parenting Behaviors.*



*Note.* Unstandardized estimates with standard errors in parentheses are presented. Residual variances of identical parenting indicators (e.g., mother warmth with father warmth) were also correlated (not shown). M = Mother; F = Father; W2 = Wave 2; W3 = Wave 3.  $*p < .05$ ;  $^a$  = not tested for significance

**Figure 6**

*Direct Effects from the Actor-partner Mediation Model with Supportive Parenting Behaviors*

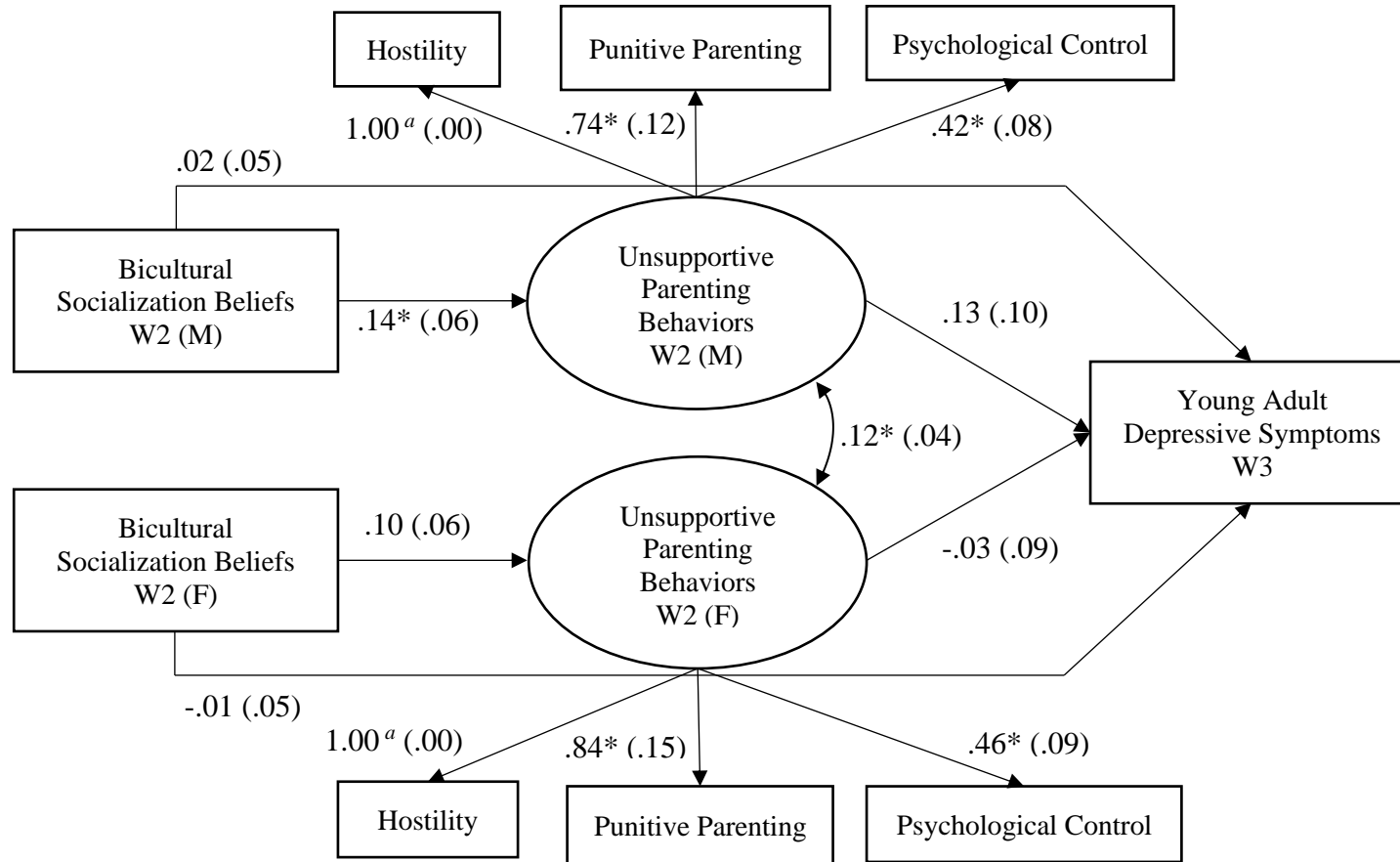


*Note.* Unstandardized estimates with standard errors in parentheses are presented. Residual variances of identical parenting indicators (e.g., mother warmth with father warmth) were also correlated (not shown). M = Mother; F = Father; W2 = Wave 2; W3 = Wave 3. \* $p < .05$ ; <sup>a</sup> = not tested for significance



**Figure 7**

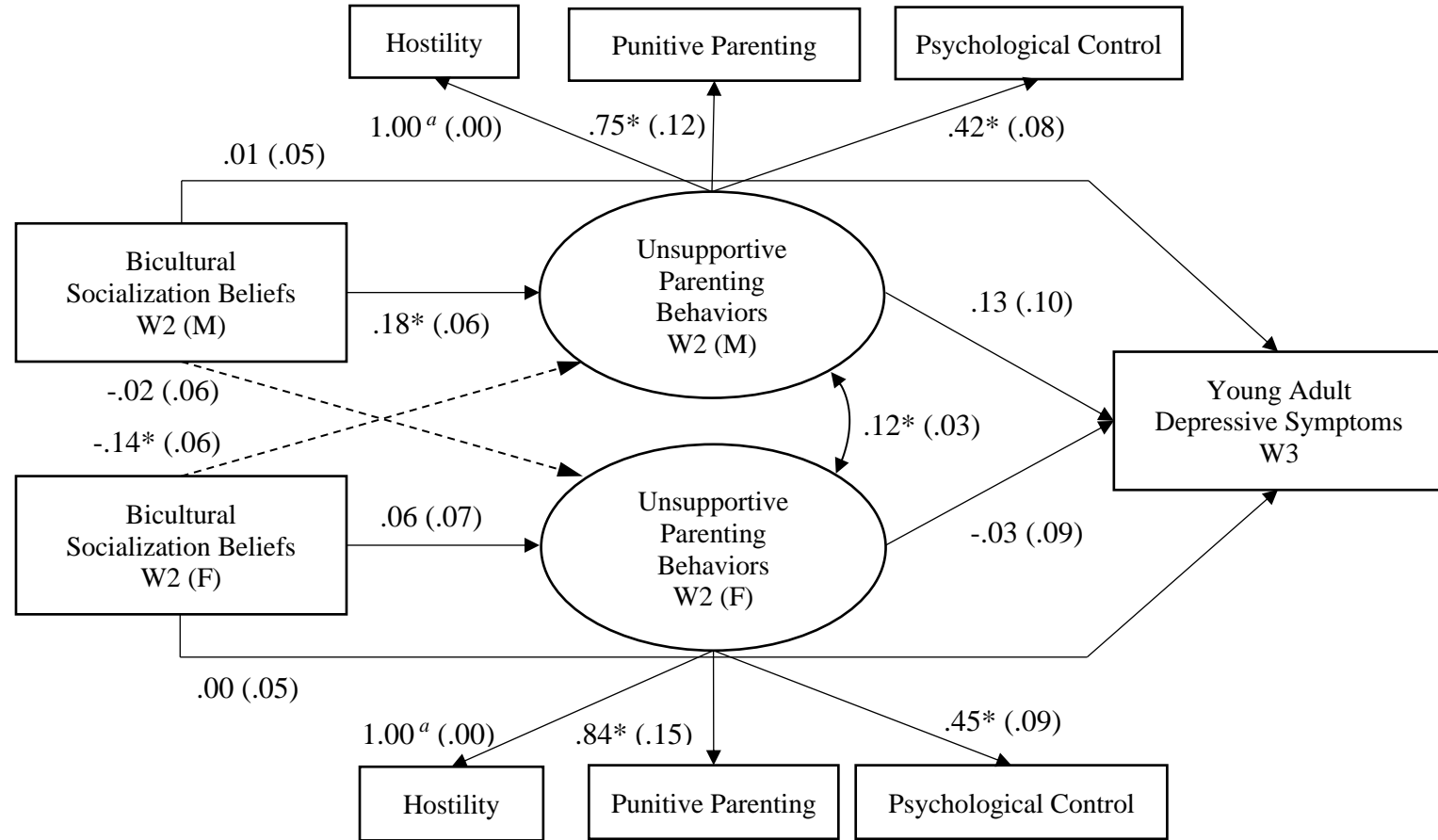
*Direct Effects from the Actor-only Mediation Model with Unsupportive Parenting Behaviors.*



*Note.* Unstandardized estimates with standard errors in parentheses are presented. Residual variances of identical parenting indicators (e.g., mother hostility with father hostility) were also correlated (not shown). M = Mother; F = Father; W2 = Wave 2; W3 = Wave 3. \* $p < .05$ ; <sup>a</sup> = not tested for significance

**Figure 8**

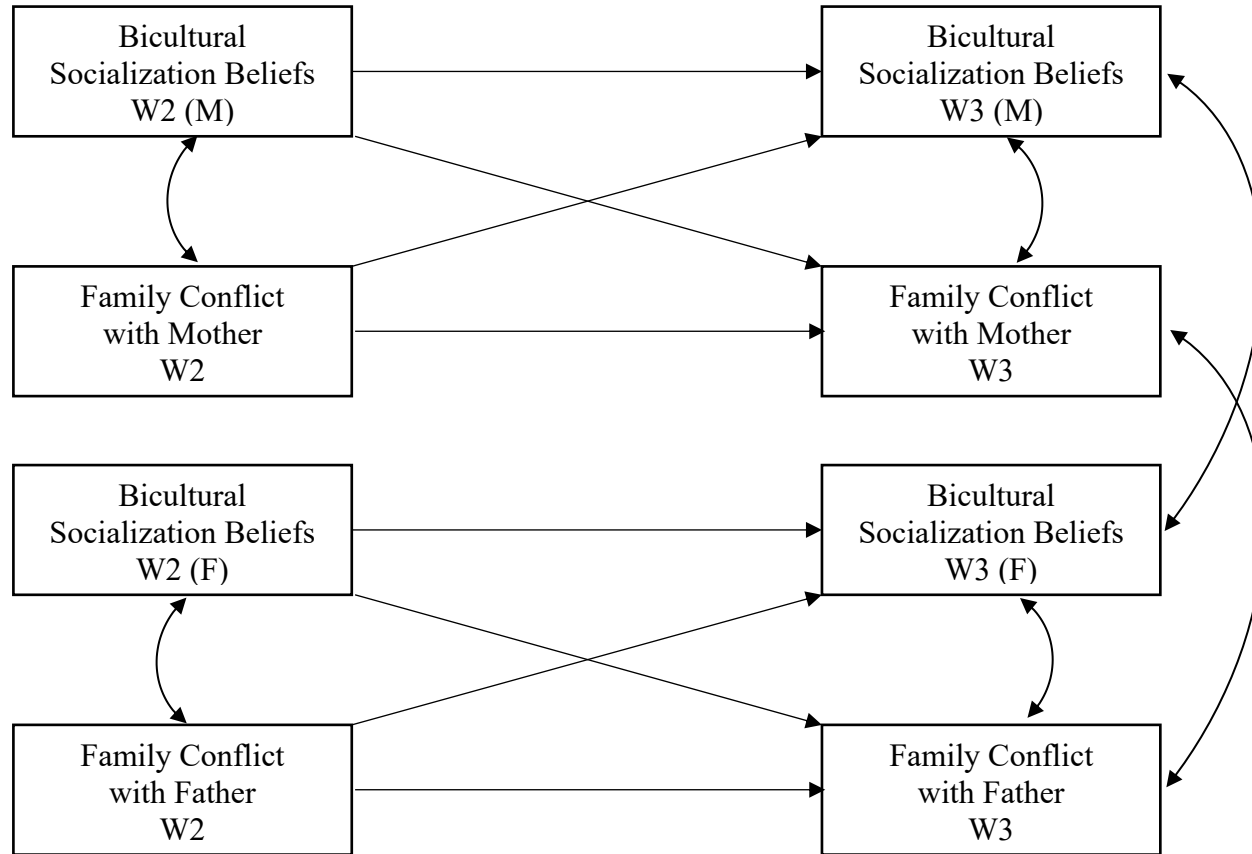
*Direct Effects from the Actor-partner Mediation Model with Unsupportive Parenting Behaviors.*



*Note.* Unstandardized estimates with standard errors in parentheses are presented. Residual variances of identical parenting indicators (e.g., mother hostility with father hostility) were also correlated (not shown). M = Mother, F = Father. \* $p < .05$ ; <sup>a</sup> = not tested for significance

**Figure 9**

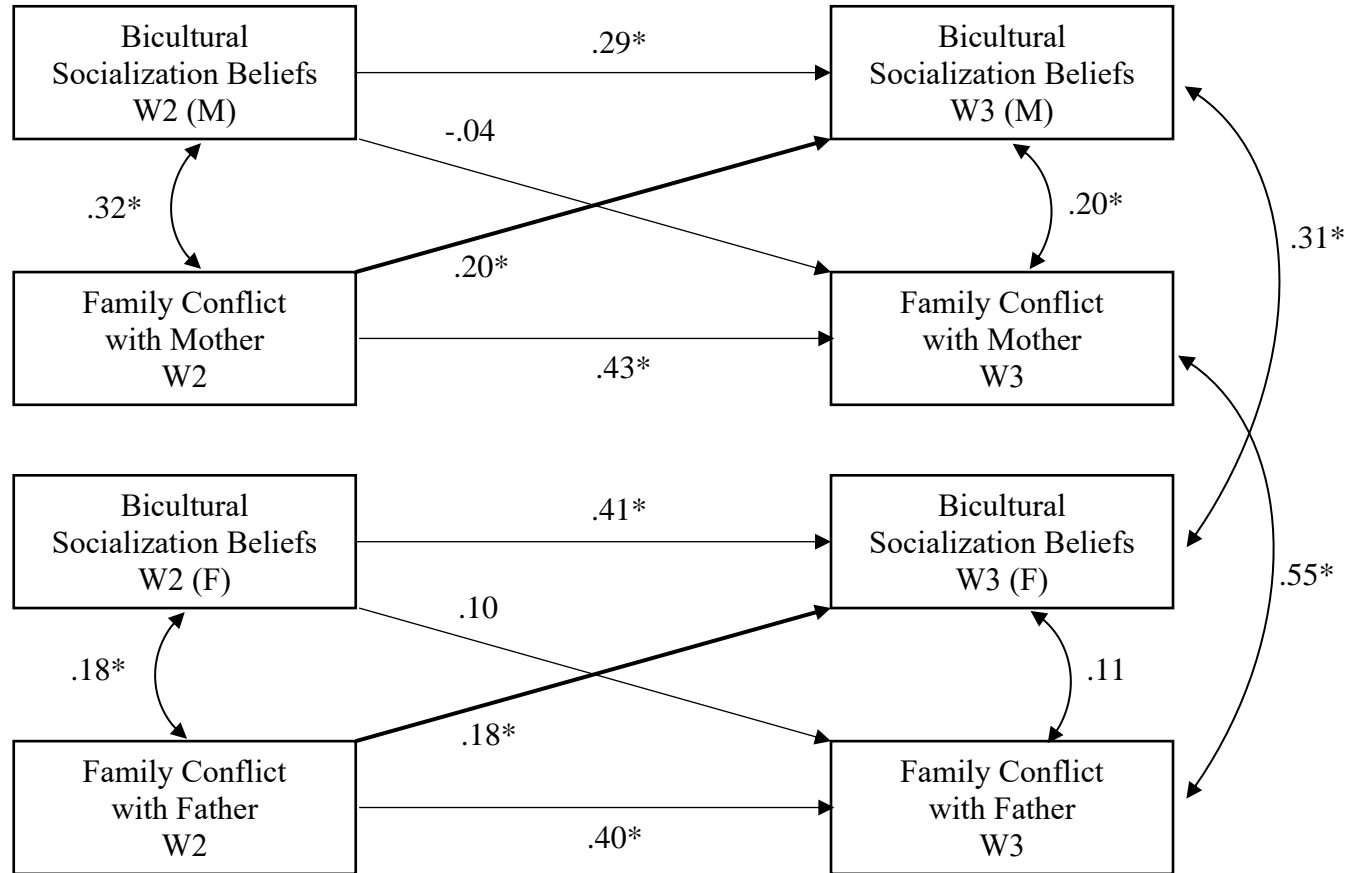
*Conceptual Model for Study 3.*



*Note.* For all models tested, all predictor variables were correlated by default (not all shown). Residuals from all outcome variables were also intercorrelated by default; only cross-parent correlations needed to model mother-father dependency are shown. M = Mother; F = Father; W2 = Wave 2; W3 = Wave 3.

**Figure 10**

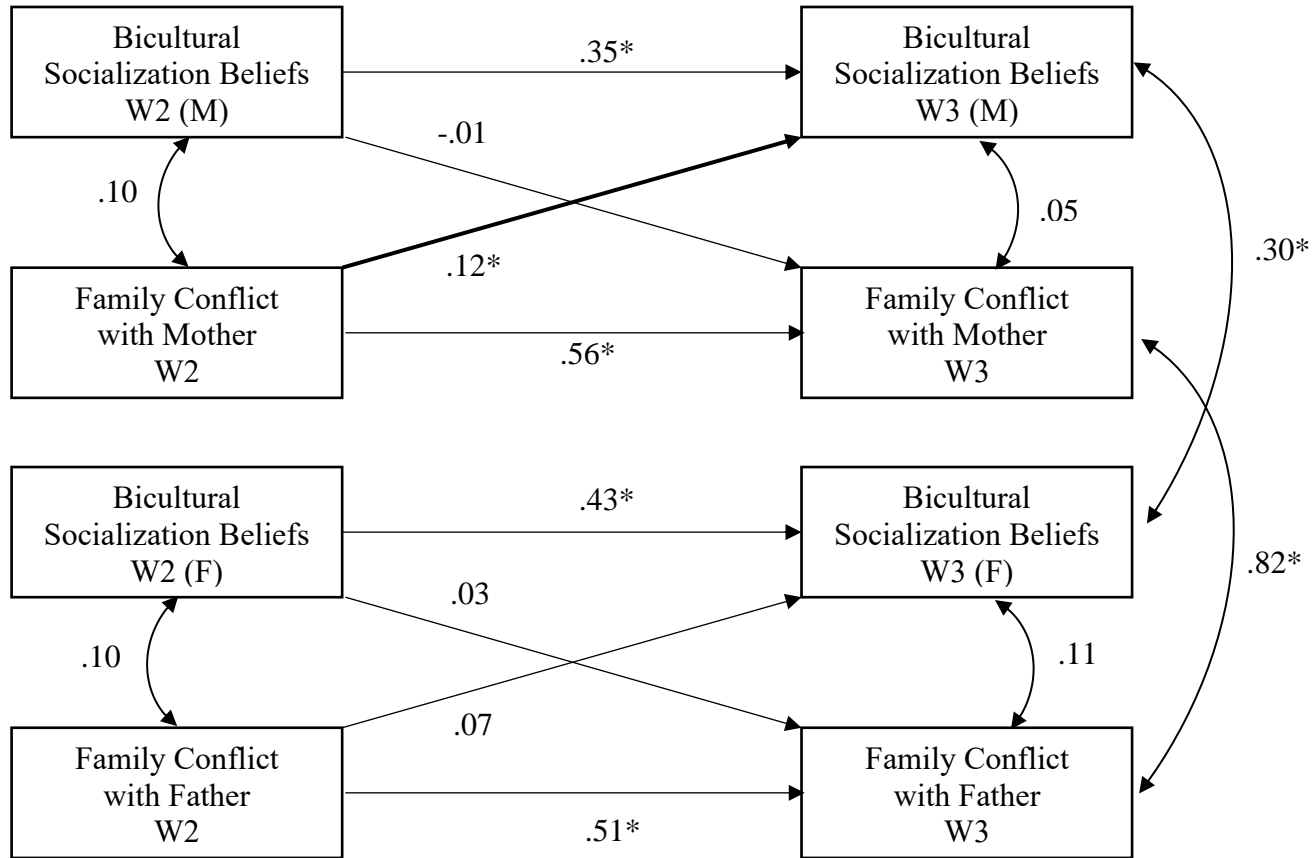
*Results from the Study 3 Parent-report of Family Conflict Cross-lag Model*



*Note.* Standardized estimates are presented. M=Mother; F=Father; W2 = Wave 2; W3 = Wave 3. Significant cross-lag paths are bolded. \* $p < .05$

**Figure 11**

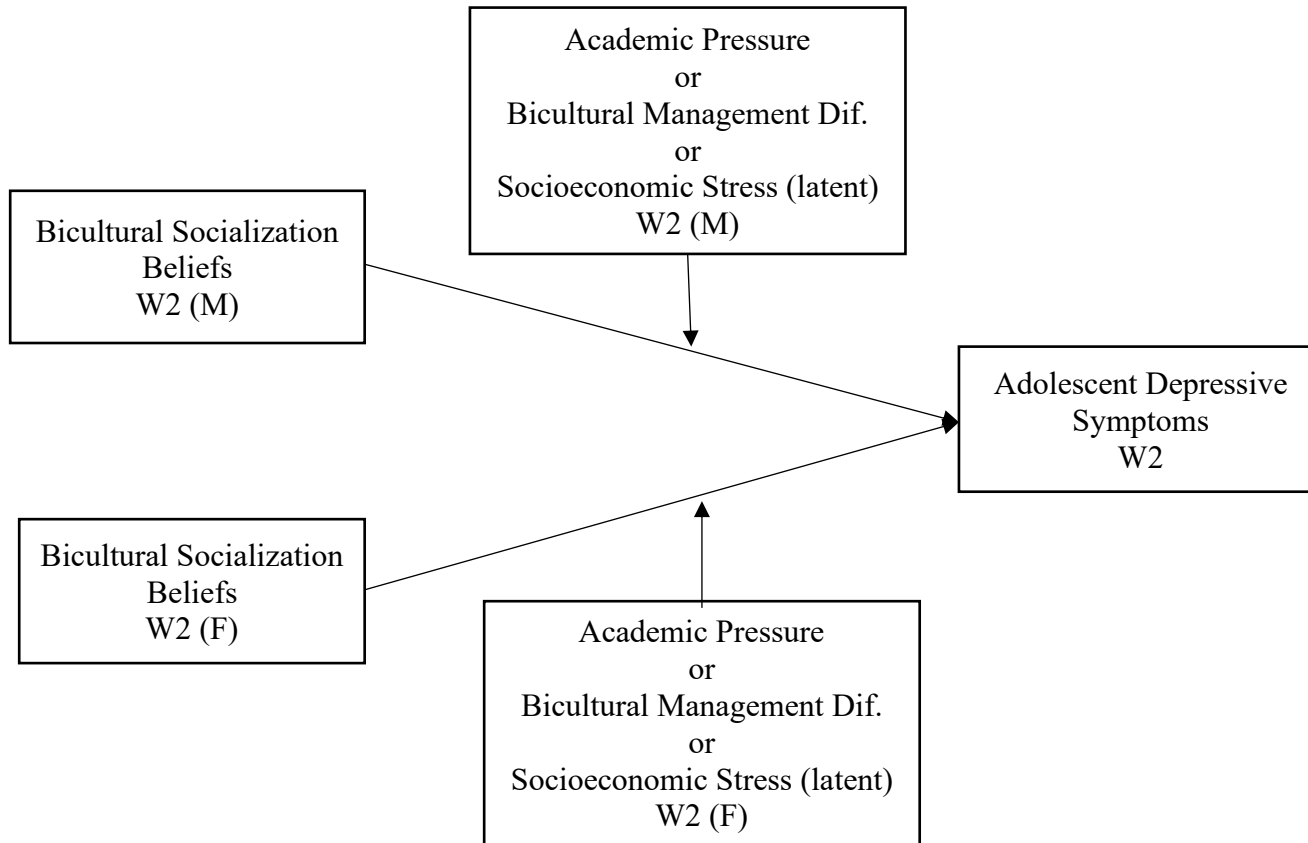
*Results from the Study 3 Adolescent-report of Family Conflict Cross-lag Model.*



*Note.* Standardized estimates are presented. M=Mother; F=Father; W2 = Wave 2; W3 = Wave. Significant cross-lag paths are bolded. \* $p < .05$

**Figure 12**

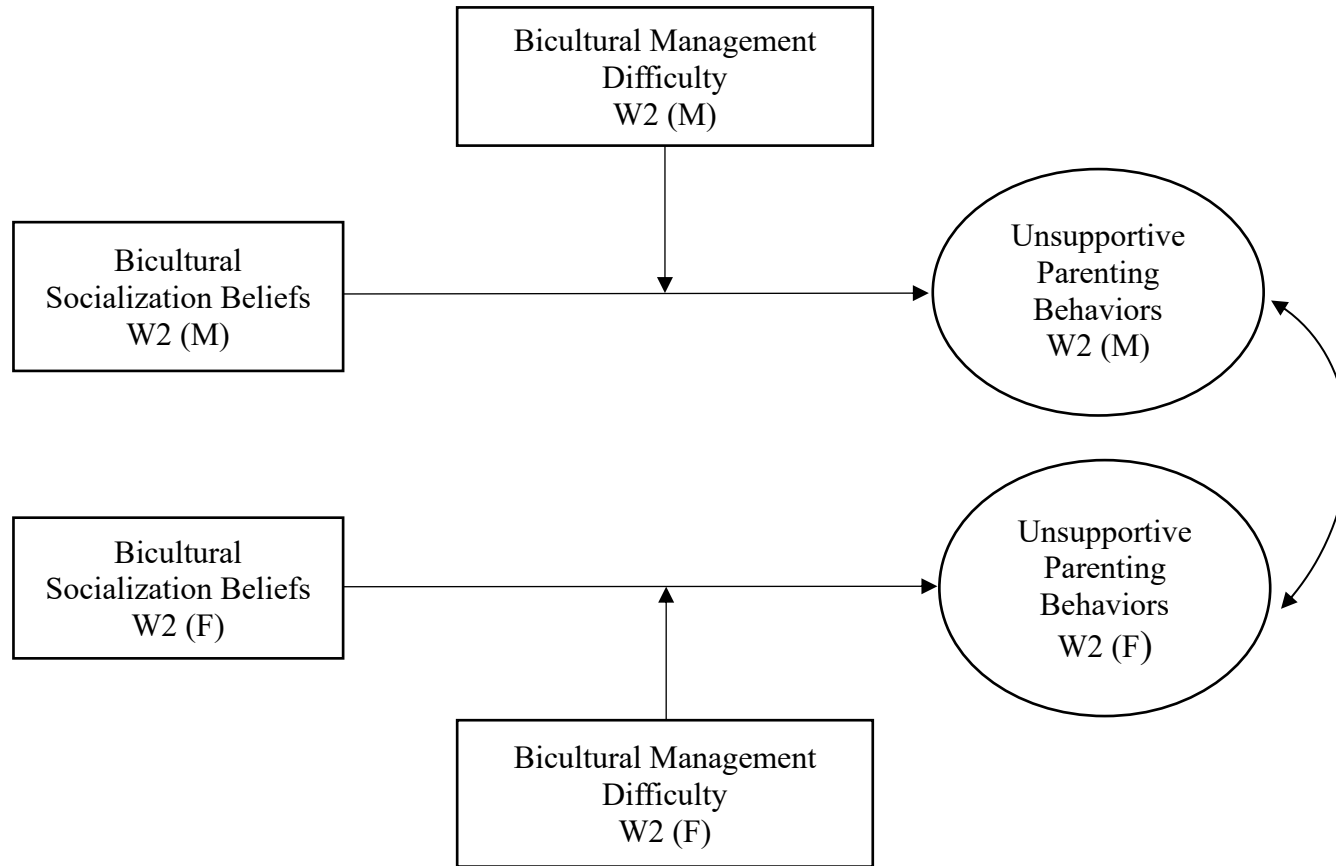
*Conceptual Model for Study 4 with Adolescent Depressive Symptoms as the Outcome*



*Note.* Separate models were created for each moderating variable. Socioeconomic Stress was modeled as a latent variable consisting of financial difficulty, financial strain, and financial adjustment. M = Mother, F = Father; W2 = Wave 2

**Figure 13**

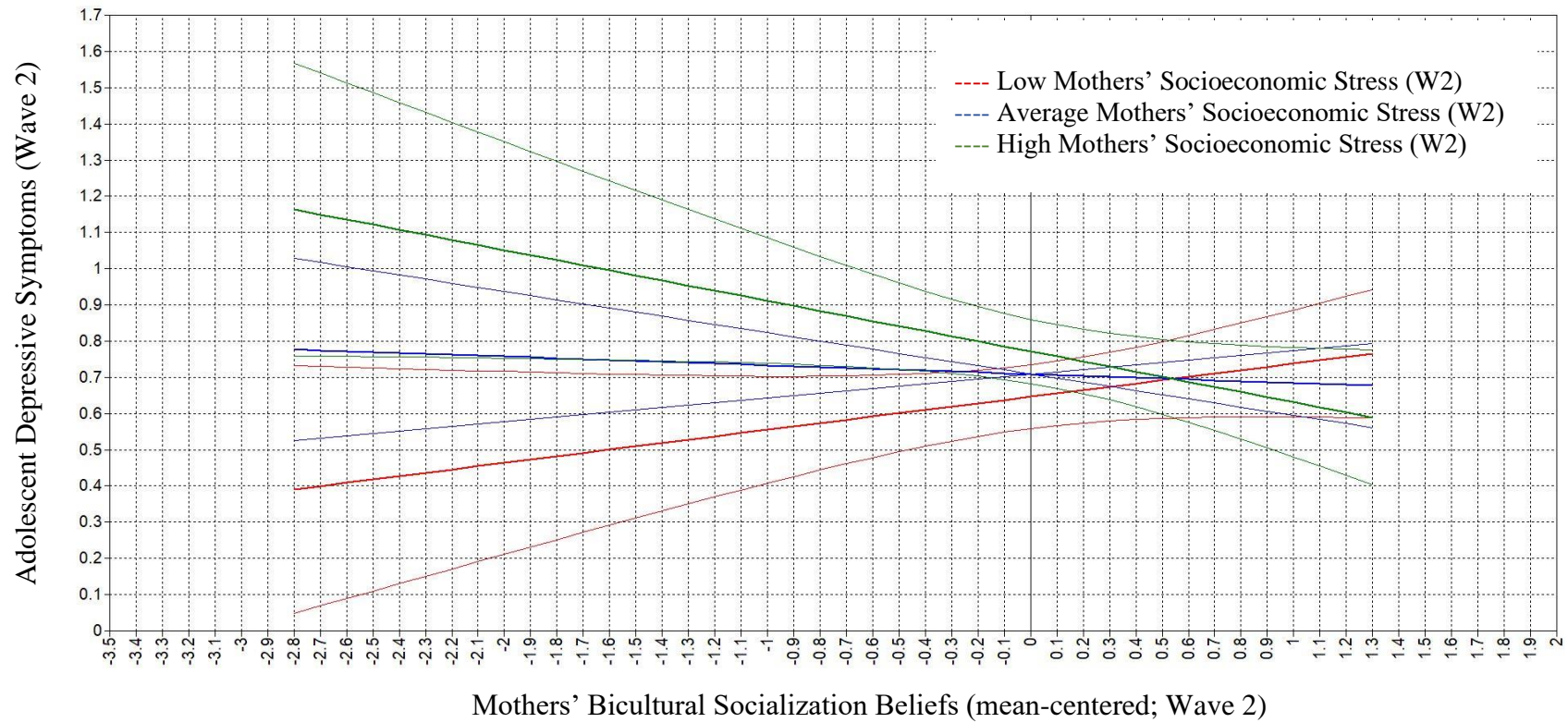
Second Conceptual Model for Study 4 with Unsupportive Parenting Behaviors as Outcomes



*Note.* M = Mother; F = Father; W2 = Wave 2.

**Figure 14**

*Study 4 Interaction Between Mother's Bicultural Socialization Beliefs and Mother's Socioeconomic Stress on Adolescent Depressive Symptoms*



*Note.* Thinner lines represent 95% confidence intervals.



**APPENDIX**  
**STUDY MEASURES**

**STUDY 1 MEASURES**

**Vancouver Index of Acculturation (Ryder et al., 2000)**

*For the following questions please think about Chinese and American cultures.*

1. I often follow Chinese cultural traditions
2. I often follow mainstream American cultural traditions (e.g., celebrate holidays)
3. I am willing to marry a Chinese person
4. I am willing to marry an American person
5. I enjoy social activities with Chinese people
6. I enjoy social activities with Americans
7. I am comfortable working with Chinese people
8. I am comfortable working with Americans
9. I enjoy Chinese entertainment (e.g., movies, music)
10. I enjoy American entertainment (e.g., movies, music)
11. I often behave in ways that are typical of the Chinese culture
12. I often behave in ways that are typical of the American culture
13. It is important for me to maintain or develop Chinese cultural practices
14. It is important for me to maintain or develop mainstream American cultural practices
15. I believe in Chinese cultural values
16. I believe in mainstream American values
17. I enjoy typical Chinese jokes and humor
18. I enjoy typical American jokes and humor
19. I am interested in having Chinese friends
20. I am interested in having American friends

**Financial Adjustment Scale (Conger et al., 2002)**

*In the past 3 months, has your family made any of the following adjustments because of financial need?*

1. changed food shopping or eating habits a lot to save money
2. shut down the heat or air conditioning to save money even though it made the house uncomfortable
3. didn't go to see the doctor or dentist when you needed to because you had to save money
4. fell far behind in paying bills
5. asked relatives or friends for money or food to help you get by
6. added another job to help make ends meet
7. received government assistance

8. sold some possessions because you needed the money(even though you really wanted to keep them)
9. moved to another house or apartment to save some money

**Discrimination Scale (Benner & Kim, 2009; Kessler et al., 1999)**

*On a day-to-day basis, how often do you experience each of the following types of discrimination?*

1. I am treated with less courtesy than other people
2. I am treated with less respect than other people
3. I receive poorer service than other people at restaurants or stores
4. People act as if they think I am not smart
5. People act as if they are afraid of me
6. People act as if I am dishonest
7. People act as if they are better than I am
8. I am called names or insulted
9. I am threatened or harassed
10. People assumed my English is poor

**STUDY 2 MEASURES**

**Warmth Scale (Conger et al., 1989-1992; Conger et al., 1995; Ge et al., 1996)**

*During the past month, when you and the target child have spent time talking or doing things together, how often did you...*

1. Act loving, affectionate, and caring towards him/her
2. Let her/him know that you appreciate her/him, her/his ideas, or the things s/he does
3. Help him/her do something that was important to him/her
4. Listen carefully to her/his point-of-view (what s/he thinks)
5. Let him/her know you really care about him/her
6. Ask for his/her opinion about an important matter
7. Have a good laugh with him/her about something that was funny
8. Act supportive and understanding towards him/her

**Inductive Reasoning Scale (Conger et al., 1989-1992; Conger et al., 1995; Ge et al., 1996)**

*Please think about how you relate to the target child and what kind of expectations you have of him/her. How often does each of the following things happen?*

1. Do you give reasons to your child for your decisions?
2. Do you ask your child what s/he thinks before making decisions that affect her/him?

3. Do you discipline your child by reasoning, explaining, or talking to him/her?
4. When your child doesn't understand why you make a rule for him/her to follow, do you explain the reasons to your child?

**Democratic Parenting Scale (Robinson et al., 1995)**

*How often do you behave this way towards the target child?*

1. I take my child's desires into account before asking him/her to do something
2. I encourage my child to freely express her/himself even when s/he disagrees with me
3. I take into account my child's preferences in making plans for the family
4. I allow my child to give input into family rules

**Parental Hostility Scale (Conger et al., 1989-1992; Conger et al, 1995; Ge et al., 1996)**

*During the past month, when you and the target child have spent time talking or doing things together, how often did you...*

1. Shout or yell at him/her because you were mad at him/her
2. Get into a fight or argument with him/her
3. Get angry at him/her
4. Criticize him/her or his/her ideas
5. Argue with him/her whenever you disagree about something
6. Hit, push, grab, or shove him/her
7. Insult or swear at him/her

**Punitive Parenting Scale (Robinson et al., 1995)**

*How often do you behave this way towards the target child?*

1. I punish him/her by taking privileges (things the child likes to do) away from my child with little or no explanation
2. I discipline my child first and ask questions later
3. I use threats as punishment with little or no explanation
4. When my child asks why s/he has to follow my rules, I state: Because I said so, or because I am your parent and I want you to

**Psychological Control Scale (Barber, 1996; Schaefer, 1965)**

*How often do you behave this way towards the target child?*

1. Change the subject whenever my child has something to say
2. Interrupt my child

3. Blame my child for other family members' problems
4. Bring up my child's past mistakes when I criticize him/her
5. If my child hurts my feelings, I stop talking to her/him until s/he pleases me again
6. I avoid looking at my child when I am disappointed in him/her
7. I am less friendly with my child if s/he does not see things my way
8. I am always trying to change my child

**Center for Epidemiologic Studies of Depression Scale (Radloff, 1977)**

*Please mark the number for each sentence that best describes how often you felt or behaved this way during the past week.*

1. I was bothered by things that usually doesn't bother me
2. I did not feel like eating; my appetite was poor
3. I felt that I could not shake off the blues (feeling down or bad) even with help from my family or friends
4. I felt that I was just as good as other people
5. I had trouble keeping my mind focused on what I was doing
6. I felt depressed
7. I felt that everything I did was an effort (hard to do)
8. I felt hopeful about the future
9. I thought my life had been a failure
10. I felt fearful
11. My sleep was restless (could not sleep well)
12. I was happy
13. I talked less than usual
14. I felt lonely
15. People were unfriendly
16. I enjoyed life
17. I had crying spells; I cried
18. I felt sad
19. I felt that people disliked me
20. I could not get "going" (get myself to do things)

**STUDY 3 MEASURES**

**Asian American Family Conflict Scale (Lee et al., 2000) – Parent Report**

*How likely is this type of situation to occur with the target child?*

1. I tell my child what to do with her/his life, but s/he wants to make her/his own decisions
2. I tell my child that a social life is not important at this age, but s/he thinks that it is
3. My child has done well in school, but I always want him/her to do even better in school

4. I want my child to sacrifice personal interests (give up things s/he likes to do) for the sake of the family, but s/he feels this is unfair
5. I always compare my child to others, but s/he wants me to accept her/him for being her/himself
6. I say to my child that I show her/him love by housing, feeding, and educating her/him, but s/he wishes I would show more physical and verbal signs of affection (e.g., hugging her/him, saying I love her/him)
7. I tell my child I don't want her/him to bring shame upon the family, but s/he feels that I am too concerned with saving face (looking good in front of others)
8. I expect my child to behave like a proper Chinese female or male, but s/he feels I am being too traditional
9. My child wants to state his/her opinion, but I consider it to be disrespectful for my child to talk back to me
10. I demand that my child always show respect for elders, but s/he believes in showing respect only if they deserve it

**Asian American Family Conflict Scale (Lee et al., 2000) – Adolescent/Young Adult Report**

*How likely is this type of situation to occur with your mother and father?*

1. Your parent tells you what to do with your life, but you want to make your own decisions
2. Your parent tells you that a social life is not important at this age, but you think that it is
3. You have done well in school, but your parent always want you to do even better
4. Your parent wants you to sacrifice personal interests(give up things you want to do)for the sake of the family, but you feel this is unfair
5. Your parent always compares you to others, but you want them to accept you for being yourself
6. Your parent says that they show you love by housing, feeding, and educating you, but you wish they would show more physical and verbal signs of affection (e.g., hugging you, saying s/he loves you)
7. Your parent doesn't want you to bring shame upon the family, but you feel that your parent is too concerned with saving face (looking good in front of others)
8. Your parent expects you to behave like a proper Chinese male or female, but you feel your parent is being too traditional
9. You want to state your opinion, but your parent considers it to be disrespectful to talk back at them
10. Your parent demands that you always show respect for elders, but you believe in showing respect only if they deserve it

**STUDY 4 MEASURES**

**Bicultural Management Difficulty Scale (Kim et al., 2014; Hou et al., 2016)**

*How often do you feel this way about being Chinese or American?*

1. It's difficult to balance two cultures (Chinese and American cultures)
2. I don't like having to choose between being Chinese or being American
3. It's difficult to know when I need to be more Chinese or American in a certain situation
4. It is hard to juggle between Chinese and American values
5. Having to select between the Chinese and American ways of doing things is not easy
6. The American style contradicts the Chinese ways of thinking

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