Maternal Socialization Goals, Parenting Styles, and Social-Emotional Adjustment Among Chinese and European American Young Adults: Testing a Mediation Model

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ABSTRACT. The authors compared the associations among perceived maternal socialization goals (self-development, filial piety, and collectivism), perceived maternal parenting styles (authoritative, authoritarian, and training), and the social-emotional adjustment (self-esteem, academic self-efficacy, and depression) between Chinese and European American young adults. The mediation processes in which socialization goals relate to young adults' adjustment outcomes through parenting styles were examined. Results showed that European American participants perceived higher maternal self-development socialization goals, whereas Chinese participants perceived higher maternal collectivism socialization goals as well as more authoritarian parenting. Cross-cultural similarities were found in the associations between perceived maternal authoritative parenting and socioemotional adjustment (e.g., higher self-esteem and higher academic self-efficacy) across the two cultural groups. However, perceived maternal authoritarian and training parenting styles were found only to be related to Chinese participants' adjustment (e.g., higher academic self-efficacy and lower depression). The mediation analyses showed that authoritative parenting significantly mediated the positive associations between the self-development and collectivism goal and socioemotional adjustment for both cultural groups. Additionally, training parenting significantly mediated the positive association between the filial piety goal and young adults' academic self-efficacy for the Chinese group only. Findings of this study highlight the importance of examining parental socialization goals in cross-cultural parenting research.

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Parents socialize their children according to the cultural values and norms prescribed by their respective cultures (Bronfenbrenner, 1979; LeVine, 1974; Super & Harkness, 1986). Similar parenting behavior exhibited by members of different cultural groups may be associated with different parental beliefs and cultural values (Rudy & Grusec, 2006). An examination of parental beliefs in the cultural context may provide insights into the meaning and implications of parenting behaviors for socialization outcomes (Tamis-LeMonda et al., 2008). One approach to studying parental beliefs is to incorporate an examination of parental socialization goals that can be conceptualized to affect parenting styles and practices, which, in turn, affect socialization outcomes (Cheah & Rubin, 2003; Darling & Steinberg, 1993; Keller et al., 2006).

Previous research on parenting styles has revealed links between authoritative parenting and positive adjustment and between authoritarian parenting and adjustment difficulties, especially among European Americans (Baumrind, 1971; Maccoby & Martin, 1983). An ongoing debate in the parenting literature pertains to whether the effects of parenting styles on various child outcomes are culturally universal or specific for different cultures (for discussions, see Nelson, Hart, Yang, Olsen, & Jin, 2006; Sorkhabi, 2005). In the past, comparisons were often made between the East and the West, particularly comparing Chinese to European Americans, given the distinct cultural traditions of these two groups (Sorkhabi, 2005). The present study extends the previous cross-cultural research on parenting styles by incorporating socialization goals that are important to the Chinese and European Americans. The cross-cultural similarities and differences in the interrelations among socialization goals, parenting styles, and young adults' social-emotional adjustment were examined.

Socialization Goals

Socialization goals represent parental beliefs and expectations regarding ideal development for children (Darling & Steinberg, 1993). Parents from different cultural contexts may endorse different socialization goals for their children (Chao, 2000; Cheah & Rubin, 2003; Keller et al., 2006; Tamis-LeMonda et al., 2008). In this section we review two types of socialization goals relevant to European American and Chinese parents, self-development and filial piety socialization goals (Chao, 2000), and proposes a collectivism socialization goal which may be especially important to Chinese parents.

Relevant to parenting among Chinese and European Americans, previous research has proposed self-development and filial piety socialization goals (Chao, 2000). Self-development socialization goals refer to parental goals that

emphasize children's self-autonomy, self-expressiveness, and the promotion of children's self-esteem. Filial piety socialization goals refer to parental goals that socialize children to fulfill their obligations to their parents and family, such as to respect and obey their parents, provide them material and emotional care, and bring honor to the family through educational and occupational success (Ho, 1996). Chao (2000) found that European American mothers emphasized self-development goals more than did immigrant Chinese mothers, who endorsed filial piety goals more. Similarly, a cross-cultural study involving mothers of preschoolers in Hong Kong and the United Kingdom showed that Chinese mothers endorse filial piety goals more than their Western counterparts (Pearson & Rao, 2003). Filial piety socialization goals reflect some of the indigenous Chinese socialization goals pursued by Chinese parents, especially in the familial context. However, they may not fully reveal the complexity of socialization goals endorsed by Chinese parents. Socialization goals beyond the familial context that suit the collectivistic aspect of the Chinese culture need to be addressed.

Collectivism and individualism have been useful tools for describing culture, although variations within nations and across contexts may also be observed (Fiske, 2002; Miller, 2002; Oyserman, Coon, & Kemmelmeier, 2002). As shown by Oyserman and colleagues' meta-analysis, Chinese culture is more collectivistic and less individualistic. Different attributes can be used to describe and distinguish collectivistic and individualistic cultures (Triandis, 1989, 1993). For instance, the self-concept in collectivistic cultures is likely to be more interdependent than independent (Markus & Kitayama, 1991); people in collectivistic cultures value harmonious interpersonal relationships and emphasize cooperation and obedience within ingroups (e.g., family, classes). Such cultural values can be greatly reflected in parents' socialization goals for their children. As Triandis (1989) noted, childrearing in collectivist cultures primarily concerns children's obedience, reliability, proper behaviors, and interdependence with family members, whereas parents in individualistic cultures emphasize self-reliance, independence, and self-actualization in childrearing. Despite the advances in research about socialization goals and cross-cultural differences in cultural values, socialization goals suitable for collectivistic cultural values and childrearing have not received full attention. However, these collectivism socialization goals may be especially relevant to parents who have a strong collectivistic orientation. Therefore, in this study we examined the collectivism socialization goal and its relations to parenting styles and socialization outcomes.

Parenting Styles

Baumrind's (1971) typology of parenting styles has greatly influenced subsequent parenting research. Cross-cultural research conducted among Chinese and Chinese American populations demonstrates somewhat inconsistent findings regarding the associations between authoritative and authoritarian parenting styles

and socialization outcomes. Consistent with the findings for European Americans (Baumrind; Maccoby & Martin, 1983), Chen, Dong, and Zhou (1997) found that an authoritative parenting style was positively related to Chinese second-grade students' school achievement and social competence, whereas an authoritarian parenting style was negatively associated with children's school and social adjustment. Similarly, authoritative parenting has been positively linked to Chinese children's adjustment (e.g., high social functioning, low externalizing and internalizing problems) mediated through children's self-regulatory and control-related abilities. In contrast, authoritarian parenting, including corporal punishment, has been shown to hinder children's self-regulatory and control-related abilities and adjustment (Eisenberg, Chang, Ma, & Huang, 2009; Zhou, Eisenberg, Wang, & Reiser, 2004). Likewise, aversive control and harsh parenting were found to relate to Chinese children's adjustment difficulties, such as externalizing behaviors, poor emotional functioning, and low academic performance, as has also been reported for European American children (Chang, Schwartz, Dodge, & McBride-Chang, 2003; Nelson et al., 2006; Wang, Pomerantz, & Chen, 2007). Furthermore, the effects of authoritative and authoritarian parenting on child outcomes have been found to be long term among Chinese children (Chen, Wang, Chen, & Liu, 2002; Zhou et al., 2008).

On the other hand, accumulating findings reveal culturally specific associations between parenting styles and socialization outcomes (Chao, 2001; Dornbusch, Ritter, Leiderman, Roberts, & Fraleigh, 1987; Leung, Lau, & Lam, 1998; McBride-Chang & Chang, 1998; Steinberg, Dornbusch, & Brown, 1992; Supple, Peterson, & Bush, 2004). For instance, although positive associations have been found between academic achievement and authoritative parenting, the associations are not as strong for Chinese American adolescents as compared to their European American counterparts (Chao, 2001; Dornbusch, et al, 1987; Steinberg et al., 1992). Other researchers did not find any associations between academic achievement and authoritarian or authoritative parenting style among Chinese adolescents in Hong Kong (McBride-Chang & Chang, 1998). A positive relation was even found between adolescent-reported parental authoritarianism and Chinese adolescents' academic performance (Leung et al., 1998). Along the same line, other studies suggest that authoritative parenting is more cross-culturally universal in terms of its association with socialization outcomes among the Chinese groups, whereas authoritarian parenting is not. Supple and colleagues (2004) found that Chinese adolescents' perceptions of maternal authoritative parenting was positively related to their self-esteem, conformity, and academic orientation. However, they found little association between these outcomes and maternal authoritarian parenting. These culturally specific findings of parenting styles are intriguing and await further cross-validation and investigation.

Although authoritative and authoritarian parenting styles have been researched extensively among diverse cultural groups, Baumrind's (1971) typology of parenting styles was first proposed to address parenting behaviors among

European Americans. Later researchers have proposed additional parenting styles (e.g., training parenting style) as candidates for study that are more indigenous or culturally specific to Asian parents (Chao, 1994, 2000). Chinese and Chinese American parents have been found to be more authoritarian and controlling than European American parents (Chao, 1994, 2000; Dornbusch et al., 1987; Lin & Fu, 1990). However, the notions of authoritarian and controlling may not adequately capture the complexity of Chinese parenting (Chao, 1994). Training parenting involves the idea of parents teaching or educating their children to induce them to engage in appropriate or desired behaviors. Training parenting conveys care and concern to Chinese children and it usually happens in a positive, supportive context and in highly involved mother–child relationships. Training parenting has been found to be exhibited more by Chinese immigrant mothers than European American mothers (Chao, 1994, 2000). Positive effects of training parenting as perceived by Chinese young adults on their adjustment (e.g., perceived health and life satisfaction) have been reported, whereas such effects have not been found for their American counterparts (Stewart, Bond, Kennard, Ho, & Zaman, 2002).

Socialization Goals and Parenting Styles

As indicated in Darling and Steinberg's (1993) model, parental socialization goals may affect socialization outcomes through parenting styles or parenting practices. Studies have provided evidence supporting partial paths of the model, such as the connections between parenting styles and practices and child outcomes and the connections between socialization goals and parenting styles and practices (Chao, 2000; Pearson & Rao, 2003; Rao, McHale, & Pearson, 2003). Nevertheless, the full mediation process, in which socialization goals relate to child outcomes through parenting styles and practices, has received little empirical examination. Therefore, in the present study we aimed to examine the full mediation processes and provide more empirical information regarding the mediation pathways from socialization goals to parenting styles, and then to socialization outcomes. It should be noted that the associations between socialization goals and parenting styles may be bidirectional, such that parenting styles may not only be guided by socialization goals, but also reinforce or alter socialization goals. However, to address the theoretical mediation process proposed in Darling and Steinberg's parenting model, we focused on the former direction of association.

Parenting and Young Adult Adjustment

Despite the abundant studies that have examined the associations between parenting styles and developmental outcomes at a younger age, fewer studies have examined the parenting influences on adjustment outcomes at late adolescence/young adulthood (McKinney & Renk, 2008). Young adults experience a

unique developmental period in which they transition from adolescence to adulthood (emerging adulthood; Arnett, 2000). Parenting that young adults received at a younger age or receive at present plays an important role in their adjustment during their emerging adulthood. For example, young adults' retrospective reports of the positive parenting they experienced as children were significantly related to the quality of their current relationship (Dalton, Frick-Horbury, & Kitzmann, 2006). The combinations of different maternal and paternal parenting styles that young adults received during emerging adulthood significantly related to their emotional adjustment (e.g., self-esteem, depression, anxiety; McKinney & Renk, 2008). Although we have gained some knowledge about parenting styles and young adults' adjustment, little is known regarding how parental socialization goals relate to young adults' adjustment and the parenting styles that parents may use to achieve their socialization goals. Further, a dearth of knowledge is available regarding how these associations may differ for different cultural groups.

Present Study

The present study extends previous cross-cultural parenting style research by incorporating socialization goals and examines the cross-cultural similarities and differences in the associations among socialization goals, parenting styles, and young adults' social-emotional outcomes. Specifically, three socialization goals (i.e., self-development, filial piety, and collectivism) and three parenting styles (i.e., authoritative, authoritarian, and training) are included in this study. In the study we focused on maternal parenting, given that mothers are the primary socialization agents in both cultures. Results of this study can also be compared with findings of previous studies, which mainly addressed maternal parenting (Chao, 1994, 2000; Stewart et al., 2002; Supple et al., 2004).

Comparisons are made between two distinct cultural groups, Chinese and European American young adults, living in Mainland China and the United States, respectively. Following previous studies (Bush, Peterson, Cobas, & Supple, 2002; Chao, 2001; Dornbusch, et al, 1987; Kim & Chung, 2003; Manian, Strauman, & Denney, 1998; Shek, 1993; Stewart et al., 2002; Supple et al., 2004), we employed young adults' reports of their mothers' parenting behaviors. Young adults may serve as valid informants to report the parenting they have experienced. This approach avoids the biases and social desirability concerns presented in parental reports (for a discussion, see Jackson, Pratt, Hunsberger, & Pancer, 2005). Additionally, young adults' reports of parenting behaviors and socialization goals reflect their own construal of parental beliefs and behaviors and thus is very relevant and predictive of their adjustment (Bush et al., 2002).

Given that relatively little research involving Chinese or Chinese American samples has focused upon social and emotional child outcomes in comparison to academic outcomes (Chao, 2001; Dornbusch et al., 1987; Steinberg et al., 1992), this study is particularly designed to examine social-emotional

adjustment. Several widely used social-emotional adjustment indexes were selected for this investigation, including self-esteem, academic self-efficacy, and depression. These outcome measures are not only indicative of adjustment per se, but are also predictive of other aspects of adjustment, such as academic performance and life satisfaction (Chemers, Hu, & Garcia, 2001; Shek, 2002; Stewart, Rao, Bond, McBride-Chang, Fielding, & Kennard, 1998; Supple et al., 2004). Examination of these outcomes supplements the existing literature and broadens researchers' understanding of the effects of parenting in the socialization process.

Two sets of hypotheses are proposed to account for (a) the mean level differences in socialization goals and parenting styles between the two cultural groups and (b) the interrelations among socialization goals, parenting styles, and adjustment outcomes. Regarding the mean level differences, we hypothesized that (a) European American young adults perceive more self-development socialization goals, whereas Chinese young adults perceive more filial piety and collectivism socialization goals; (b) Chinese young adults perceive more maternal authoritarian and training parenting than their European American counterparts. However, both groups should not differ in authoritative parenting on the basis of previous findings (Chao, 2000).

Generalizing hypotheses regarding the interrelationships among parenting and social-emotional outcomes is somewhat difficult because of the conflicting findings reported in the literature (Bush et al., 2002). Thus, we propose the following hypotheses with prudence.

> *Hypothesis 1 (H₁):* For both groups, the self-development socialization goal positively relates to authoritative parenting style, but has little or even negative associations with authoritarian and training parenting. The filial piety socialization goal is hypothesized to relate positively to authoritarian and training parenting styles and not relate to, or negatively relate to, the authoritative parenting style. It is exploratory to examine the associations between the collectivism socialization goal and parenting styles, but it may positively relate to authoritarian and training parenting styles.

> *Hypothesis 2 (H₂):* With regard to the relations between socialization goals and adjustment outcomes, the perceived self-development socialization goal is expected to positively relate to adjustment (higher self-esteem, higher academic self-efficacy, lower depression), especially for European Americans. We expect the perceived filial piety and collectivism socialization goals to relate positively to Chinese participants' adjustment as they are posited to be more prominent in the Chinese culture, and unrelated to or negatively related to adjustment (lower self-esteem, lower academic self-efficacy, and higher depression) among European American participants.

FIGURE 1. Theoretical mediation model.
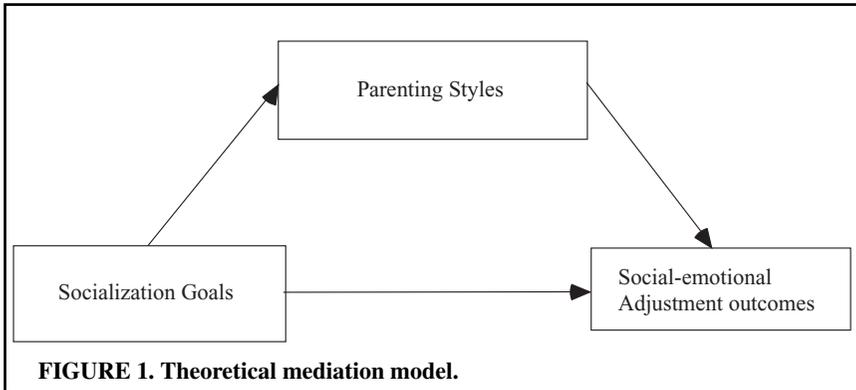
Hypothesis 3 (H₃): We expect that greater perceived authoritative parenting to relate to better adjustment (greater self-esteem, greater academic self-efficacy, and lower depression), whereas more perceived authoritarian parenting to relate to adjustment difficulties (lower self-esteem, lower academic self-efficacy, and higher depression). We expect cross-cultural similarities in these associations based on previous cross-cultural research (Chen et al., 1997). Additionally, we expect perceived maternal training parenting to be positively associated with adjustment similar to authoritative parenting, but for Chinese participants only.

Hypothesis 4 (H₄): The overall mediation model is shown in Figure 1. The specific mediations vary depending on the specific socialization goals and parenting styles. Based on the previous predictions of associations, we expect a higher perceived self-development socialization goal to relate to more perceived authoritative parenting, which, in turn, relates to better adjustment among young adults. We also expect a higher perceived filial piety goal to relate to more perceived training parenting, which, in turn, relates to better adjustment, but for the Chinese group only. The perceived maternal filial piety goal may relate to more perceived authoritarian and less authoritative parenting and, in turn, relate to adjustment difficulties among European American participants. It is somewhat exploratory to examine the mediation processes for the collectivism socialization goal. However, the perceived training parenting may mediate the association between the perceived collectivism socialization goal and the positive adjustment for Chinese participants. Other possible mediations for the perceived collectivism socialization goal, such as through perceived authoritarian and authoritative parenting, are investigated.

Method

Participants

One hundred and thirty seven college students were recruited in two universities in China and in the United States, respectively. Specifically, 79 Chinese college students (M age $= 19.91$ years; $SD = 1.32$ years; 46 women) were recruited from a university located in a large city in northern China and 58 European American college students (M age $= 19.10$ years; $SD = 1.17$ years; 35 women) were recruited from a university located in a midsized city in the southeastern United States. These two universities are comparable in terms of academic rigor, and both universities recruit students nationwide. Approximately 95% of the Chinese participants and 92% of the American participants grew up in urban or suburban settings with relatively few growing up in rural settings. Both groups participated in this study at the end of their academic semesters. Chi-square testing indicated that the numbers of men and women were not significantly different between these two groups. The majority of the participants in the study were reared by their biological parents, except for three Chinese and three European American participants who were reared by both a biological parent and a stepparent. European American participants reported higher maternal education, $t (1, 133) = 6.19$, $p < .01$, than Chinese participants. The average years of schooling for mothers in the European American group and the Chinese group were 16.04 ($SD = 4.36$) and 11.91 years ($SD = 3.40$), respectively. On average, European American participants reported that their mothers completed an undergraduate degree, whereas high school or some college education was reported by Chinese participants.

Procedure

After the purpose of the study was explained and consent forms were signed, participants completed a questionnaire package during the research session. They were instructed to report their demographic information and the manner in which their mothers reared them when they were young. Afterward, they reported their present social-emotional adjustment on the outcome measures. The measures were translated into Chinese by two researchers who are fluent in both English and Chinese using the translation and back-translation technique to ensure translation accuracy. Participants were debriefed following the completion of the study.

Measures

Socialization goals. The socialization goal measure developed by Chao (2000) was used in this study to assess self-development and filial piety socialization goals. Four items assessed self-development goal (e.g., "I want my children to be very unique and be their own individual") and three items assessed filial piety goal (e.g., "I want my children to respect their elders"). Participants rated how

TABLE 1. Cronbach's Alphas for Perceived Maternal Variables and Outcome Variables

Variable	Overall sample	European Americans	Chinese
Socialization goal			
Self-socialization	.72	.73	.64
Filial piety	.60	.60	.57
Collectivism	.76	.75	.77
Parenting style			
Authoritative	.86	.86	.87
Authoritarian	.72	.73	.73
Training	.73	.75	.73
Outcome variable			
Self-esteem	.87	.88	.88
Academic self-efficacy	.87	.79	.88
Depression	.86	.84	.88

important each goal was to their mothers using a 5-point Likert-type scale ranging from 1 (*not at all important*) to 5 (*very important*). These two subscales have been validated among immigrant Chinese mothers (Chao, 2000). As Table 1 shows, the Cronbach's alphas for the self-development goal were generally adequate, but were somewhat low for the filial piety goal, which may have been influenced by the small number of items in the scale (Chao, 2000).

A five-item measure assessing the collectivism socialization goal was developed for this study on the basis of the collectivistic attributes described in previous research (Triandis, 1989, 1993). These items reflected parental socialization goals that emphasize social harmony, cooperation, and a group orientation. Participants rated how important each goal was to their mothers using a 5-point Likert-type scale ranging from 1(*not at all important*) to 5 (*very important*). To examine the factor structure of this new scale, Exploratory Factor Analysis with Principle Axis Factoring that examines the common variance among items (Pett, Lackey, & Sullivan, 2003) was conducted for both cultural groups and the overall sample. A one-factor structure was found for both groups and the overall sample. The factor loadings of the five items were satisfactory (see Table 2**).** The internal consistencies of this measure were satisfactory for both cultural groups and the overall sample (see Table 1).

Parenting styles. The shortened version of Block's (1965) Child Rearing Practice Report (CRPR; Rickel & Biasatti, 1982) was adapted to assess young adults' perceptions of their mothers' authoritative and authoritarian parenting behaviors.

TABLE 2. Factor Loadings for the Collectivism Socialization Goal

Item	Overall sample	European Americans	Chinese
1. I want my child to have harmonious relationships with people around him/her.	.73	.71	.71
2. When in a group, I want my child to be cooperative with people.	.72	.78	.83
3. When my child succeeds, I want him/her to think about the help he/she received from others.	.55	.66	.44
4. I want my child to be modest and learn from others.	.56	.52	.55
5. I want my child to know the role he/she should play in a social group.	.64	.50	.71

Note. The Principal Axis Factoring was used in the Exploratory Factor Analysis. A one-factor structure emerged for both groups and for the overall sample. The percentages of common variance explained were 41%, 41%, and 44% for the whole sample, the European American group, and the Chinese group, respectively.

Participants reported how descriptive each statement was for their mothers using a 6-point Likert-type scale ranging from 1 (*not at all*) to 6 (*extremely*). Following the approach used in previous studies (Chao, 1994; Chen et al., 1997; Kochanska, 1990), items representing the authoritarian and authoritative parenting styles were selected from the shortened CRPR. For authoritative parenting styles, the selected items represented parental acceptance of the child, respect for the child, encouragement of the child's independence and exploration, and reasoning (e.g., "I talk it over and reason with my child when he or she misbehaves."; "I encourage my child to be curious to explore and question things."). For the authoritarian parenting style, the selected items described parental power assertion, punitive strategies, and discouragement of democratic participation and challenges to parental authority (e.g., "I teach my child one way or another punishment will find him when he is bad."; "I do not allow my child to question my decisions."). There were 12 items identified as authoritative parenting items and 5 items as authoritarian parenting items. These authoritative and authoritarian items have been used among Chinese parents and demonstrated acceptable validity and reliability (Chen et al., 1997). Internal consistencies of perceived maternal authoritative and authoritarian styles in the current study were high for each cultural group and for the overall sample (see Table 1).

The six-item training parenting scale developed by Chao (2000) was used in this study to measure training parenting. The scale examines parental training of children on how to behave (e.g., "For children to learn, parents should continuously

monitor and correct their behavior.") and parental involvement in childrearing (e.g., "Parents need to do everything for the child's education and make many sacrifices."). This training parenting scale has been validated among immigrant Chinese mothers and Chinese mothers in Mainland China (Chao, 2000; Rao et al., 2003). Participants rated how strongly their parents would agree with each of the six statements on a 5-point Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The Cronbach's alphas of maternal training parenting as reported by participants were adequate for both cultural groups and the overall sample (see Table 1).

Social-emotional adjustment outcomes. Rosenberg's (1965) 10-item self-esteem scale was used in this study (e.g., "On the whole, I am satisfied with myself."). Participants rated the items on a 5-point Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). An 8-item academic self-efficacy scale was used in this study (Chemers et al., 2001). This scale assesses individuals' self-efficacy on a variety of academic skills that are pertinent to achievement (e.g., "I know how to study to perform well on tests."). Participants rated how much they agreed with each statement assessing their confidence in their ability to achieve in school on a 7-point Likert-type scale ranging from 1 (*very untrue*) to 7 (*very true*). Beck's Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) was used in this study to assess participants' depressed mood. This 21-item measure assesses the severity of various depressive symptoms. For each item, there are four choices (e.g., 0 = "I do not feel sad."; 1 = "I feel sad."; 2 = "I am sad all the time and I can't snap out of it."; 3 = "I am so sad or unhappy that I can't stand it."). Participants checked all the choices that applied to them. The internal consistencies of all three adjustment measures were adequate (see Table 1).

Results

Mean Differences in Socialization Goals

To test the hypotheses on cultural differences in the parenting factors, two multivariate analyses of covariance (MANCOVA) were conducted on socialization goals and parenting styles, respectively. Cultural group and participant gender were entered as the grouping factors. Socialization goals (or parenting styles) were entered as the repeated measures. Maternal education was a covariate as it was significantly different for these two groups and correlated significantly with some of the parenting factors. Means and standard deviations of the parental variables are shown in Table 3.

The MANCOVA results for socialization goals showed a significant cultural group effect, Wilks's $\lambda = .71$, $F(3, 128) = 17.18$, $p < .001$. Because

TABLE 3. Means and Standard Deviations for the Perceived Maternal Parenting Variables

Variable	Overall sample		European Americans		Chinese	
	M	*SD*	*M*	*SD*	*M*	*SD*
Socialization goal						
Self-development	3.82	0.80	4.23[a]	0.71	3.52[b]	0.72
Filial piety	4.19	0.71	3.99	0.77	4.33	0.64
Collectivism	4.07	0.71	3.84[a]	0.74	4.24[b]	0.64
Parenting style						
Authoritative	4.86	0.77	4.93	0.78	4.80	0.77
Authoritarian	3.51	1.04	3.14[a]	1.02	3.78[b]	0.97
Training	3.90	0.70	3.71	0.71	4.03	0.66

Note. The different letter superscripts (a, b) within rows indicate significant cultural group differences.

there was no significant participant gender effect or participant gender by cultural group interaction effect, participant gender was dropped from the follow-up analyses. Three post hoc analyses of covariance (ANCOVAs) were conducted on each of the three socialization goals (i.e., self-development, filial piety, and collectivism). As expected, European American participants perceived a higher level of the self-development goal than the Chinese participants, $F(1, 132) = 21.39$, $p < .001$, whereas Chinese participants perceived a higher level of the collectivism socialization goal, $F(1, 132) = 14.77$, $p < .001$. Both groups perceived the same level of the filial piety socialization goal, $F(1, 132) = 2.24$, $p = .14$.

Mean Differences in Parenting Styles

The MANCOVA results for the parenting styles showed a significant cultural group effect, Wilks's $\lambda = .94$, $F(3, 128) = 2.87$, $p < .05$. Because there was no significant participant gender effect or interaction effect of cultural group by participant gender, participant gender was dropped from the follow-up analyses. Three post hoc ANCOVAs were conducted on each of the three parenting styles (i.e., authoritative, authoritarian and training). There was significant mean difference in neither authoritative parenting between the two groups, $F(1, 132) = 0.75$, $p = .39$, nor training parenting, $F(1, 132) = 2.16$, $p = .14$. However, Chinese participants reported receiving a higher level of authoritarian parenting style than their European American counterparts, $F(1, 132) = 8.58$, $p < .01$.

TABLE 4. Correlations Among Perceived Maternal Parenting Variables and Social-Emotional Outcomes for Both Cultural Groups

Variable	1	2	3	4	5	6	7	8	9	10
1. Education	—	.09	−.02	−.19	−.08	−.16	−.31*	−.07	.01	−.03
2. Collectivism SG	.13	—	.34**	.57**	.40**	.39**	.37**	.14	−.04	−.07
3. Self-dev SG	.14	.41**	—	.28*	.58**	−.06	.05	.27*	.26*	−.16
4. Filial piety SG	−.22†	.31**	.03	—	.18	.52**	.58**	−.04	−.09	.15
5. Authoritative PS	.09	.36**	.53**	−.09	—	−.23†	.18	.34**	.29*	−.13
6. Authoritarian PS	.03	−.10	−.13	.28*	−.27*	—	.46**	−.21	−.18	.19
7. Training PS	−.13	.23*	.10	.38**	.14	.28*	—	−.02	−.22†	.04
8. Self-esteem	−.06	.20†	.22*	−.10	.47**	.02	.04	—	.14	−.74**
9. Acad. self-efficacy	−.25*	.14	.15	−.02	.24*	.00	.20†	.54**	—	−.12
10. Depression	.21†	−.16	−.17	.00	−.46**	−.09	−.15	−.74**	−.57**	—

Note. Correlation coefficients for the European American and the Chinese groups are above and below the diagonal, respectively. PS = Parenting style; SG = Socialization goal; Self-dev SG = Self-development socialization goal; Acad. self-efficacy = Academic self-efficacy.
†$p < .10$. *$p < .05$. **$p < .01$.

Relations Between Socialization Goals and Social-Emotional Outcomes

To examine the associations between socialization goals and social-emotional adjustment outcomes, both zero-order correlations and hierarchical regressions were conducted. Specifically, three hierarchical regressions were conducted for each outcome variable (i.e., self-esteem, academic self-efficacy, and depression) with (a) maternal education and cultural group, (b) socialization goals (centered), and (c) interaction terms (created by multiplying the centered socialization goal and cultural group) entered in three blocks, respectively. As the results show (see Tables 4 and 5), both maternal self-development and collectivism socialization goals were positively associated with participants' adjustment, whereas filial piety socialization goals related to adjustment difficulties in both groups.

Specifically, regression results (see Table 5) showed that the perceived maternal self-development socialization goal significantly and positively related to participants' self-esteem ($\beta = .23, p < .05$) and near significantly to academic self-efficacy ($\beta = .18, p < .10$). Similarly, perceived maternal collectivism socialization goal positively predicted participants' self-esteem ($\beta = .23, p < .05$) and near significantly and negatively predicted participants' depression ($\beta = −.20, p < .10$). In contrast, the perceived maternal filial piety socialization goal negatively predicted participants' self-esteem ($\beta = −.21, p < .05$) and near significantly and positively predicted young adults' depression ($\beta = .18, p < .10$). No cultural group differences in these associations were found.

TABLE 5. Hierarchical Regression Analyses of Participants' Social-emotional Outcomes on Perceived Maternal Socialization Goals

Variable	Self-esteem					Academic self-efficacy					Depression				
	B	SE	β	R^2	ΔR^2	B	SE	β	R^2	ΔR^2	B	SE	β	R^2	ΔR^2
Block 1				.07	.07*				.17	.17***				.01	.01
Education	-0.12	0.15	-.07			-0.29	0.18	-.15			0.17	0.15	.11		
Cultural grp	-3.94	1.34	-.28**			-8.06	1.57	-.46***			1.58	1.30	.12		
Block 2				.17	.11**				.21	.04†				.08	.07*
Education	-0.25	0.15	-.16†			-0.39	.19	-.20*			0.28	0.15	.19†		
Cultural grp	-3.31	1.52	-.24*			-7.02	1.85	-.41***			1.27	1.51	.10		
Self-development SG	2.00	0.85	.23*			1.91	1.03	.18†			-1.32	0.84	-.16		
Filial piety SG	-2.02	0.92	-.21*			-1.52	1.12	-.13			1.68	0.92	.18†		
Collectivism SG	2.28	1.01	.23*			1.12	1.22	.09			-1.87	1.00	-.20†		
Block 3				.18	.00				.23	.01				.10	.02
Education	-0.25	0.15	-.16			-0.37	.19	-.19*			0.28	0.15	.19†		
Cultural grp	-3.17	1.55	-.23*			-6.79	1.88	-.39***			1.25	1.54	.10		
Self-development SG	2.62	1.30	.30*			2.97	1.57	.27†			-1.47	1.28	-.18		
Filial piety SG	-2.37	1.39	-.25†			-1.90	1.68	-.16			2.80	1.37	.31*		
Collectivism SG	1.98	1.47	.20			-0.01	1.78	-.00			-1.91	1.45	-.20		
Cultural grp × SSG	-1.10	1.73	-.09			-1.95	2.10	-.13			0.15	1.71	.01		
Cultural grp × FSG	0.67	1.83	.05			0.93	2.22	.05			-2.24	1.81	-.16		
Cultural grp × CSG	0.78	2.03	.05			2.57	2.45	.14			-0.34	2.00	-.02		

Note. SG = socialization goal; SSG = Self-development socialization goal; FSG = Filial piety socialization goal; CSG = Collectivism socialization goal; Cultural grp = Cultural group. Cultural group was dummy coded: 0 = European American participants, 1 = Chinese participants.
†$p < .10.$ *$p < .05.$ **$p < .01.$ ***$p < .001.$

Relations Between Parenting Styles and Social-Emotional Outcomes

To examine how parenting styles related to adjustment outcomes as well as the cultural group differences in these associations, both zero-order correlations and hierarchical regressions were conducted (see Tables 4 and 6). Results indicated that perceived maternal authoritative parenting was generally correlated with participants' social-emotional adjustment for both groups, whereas authoritarian parenting was generally not correlated to any social-emotional outcomes (see Table 4). Perceived maternal training parenting style was negatively correlated with European American participants' academic self-efficacy, but positively correlated with Chinese participants' academic self-efficacy.

Three hierarchical regressions were conducted on each outcome variable (self-esteem, academic self-efficacy, and depression) with (a) maternal education and cultural group, (b) three parenting styles (centered), and (c) interaction terms (created by multiplying the centered parenting style and cultural group) entered in three blocks, respectively (see Table 6). The intercorrelations among parenting styles were observed and were controlled for in the hierarchical regressions to examine the unique association of each parenting style with each outcome variable. Specifically, for both cultural groups, authoritative parenting was negatively correlated with authoritarian parenting, but not correlated with training parenting. In contrast, authoritarian parenting was positively correlated with training parenting (see Table 4).

As Table 6 shows, the European Americans reported higher self-esteem and academic self-efficacy than their Chinese counterparts. Controlling for these group differences in the outcome variables, maternal authoritative parenting style in both cultural groups significantly and positively predicted participants' adjustment, including self-esteem and academic self-efficacy. A significant cultural group by training parenting interaction was also found for academic self-efficacy ($\beta = .36$, $p < .01$). Follow-up regressions revealed that perceived maternal training parenting significantly and positively predicted Chinese participants' academic self-efficacy ($\beta = .24$, $p < .05$; $R^2 = .12$), but near significantly and negatively predicted that of the European American participants ($\beta = -.24$, $p < .10$; $R^2 = .05$).

Regression results for participants' depression showed significant cultural group by parenting style interactions (culture by authoritative parenting: $\beta = -.38$, $p < .01$; culture by authoritarian parenting: $\beta = -.31$, $p < .05$). Post hoc regressions with authoritative and authoritarian parenting as predictors while controlling for maternal education showed that both the authoritative and authoritarian parenting styles significantly predicted lower levels of Chinese participants' depression (authoritative parenting: $\beta = -.55$, $p < .001$; authoritarian parenting: $\beta = -.25$, $p < .05$; $R^2 = .33$), but did not significantly predict European American participants' depression.

In summary, the previous results showed positive associations between perceived maternal authoritative parenting and participants' social-emotional

TABLE 6. Hierarchical Regression Analyses of Participants' Social-Emotional Outcomes on Perceived Maternal Parenting Styles

Variable	Self-esteem					Academic self-efficacy					Depression				
	B	SE	β	R^2	ΔR^2	B	SE	β	R^2	ΔR^2	B	SE	β	R^2	ΔR^2
Block 1				.07	.07*				.17	.17***				.01	.01
Education	-0.12	0.15	-.07			-0.29	0.18	-.15			0.17	0.15	.11		
Cultural grp	-3.95	1.34	-.28**			-8.06	1.57	-.46***			1.58	1.30	.12		
Block 2				.23	.16***				.22	.05*				.13	.11**
Education	-0.13	0.14	-.08			-0.29	0.18	-.15			0.16	0.14	.10		
Cultural grp	-3.39	1.28	-.24**			-7.59	1.60	-.44***			1.33	1.28	.10		
Authoritative PS	3.76	0.76	.42***			2.47	0.95	.22*			-2.96	0.76	-.35***		
Authoritarian PS	0.30	0.62	.05			-0.11	0.78	-.01			-0.43	0.62	-.07		
Training PS	-0.53	0.93	-.05			0.01	1.17	.00			0.00	0.93	.00		
Block 3				.25	.03				.28	.06*				.21	.09**
Education	-0.17	0.14	-.10			-0.34	0.18	-.17†			0.22	0.14	.15		
Cultural grp	-3.41	1.27	-.24**			-7.80	1.56	-.45***			1.45	1.23	.11		
Authoritative	2.71	1.15	.30*			2.96	1.41	.27*			-0.60	1.11	-.07		
Authoritarian	-0.93	0.97	-.14			0.19	1.19	.02			1.08	0.94	.17		
Training	-0.45	1.40	-.04			-3.44	1.71	-.28*			0.15	1.35	.02		
Cultural grp × Authoritative PS	1.87	1.53	.16			-0.70	1.88	-.05			-4.25	1.48	-.38**		
Cultural grp × Authoritarian PS	2.19	1.26	.24†			-0.18	1.55	-.02			-2.73	1.22	-.31*		
Cultural grp × Training PS	0.12	1.84	.01			6.34	2.26	.36**			-0.62	1.78	-.05		

Note. PS = Parenting style; Cultural grp = Cultural group. Cultural group is dummy coded: 0 = European American participants, 1 = Chinese participants.
†$p < .10.$ *$p < .05.$ **$p < .01.$ ***$p < .001.$

adjustment in both cultural groups. Additionally, positive associations were found between perceived maternal training and authoritarian parenting styles and participants' social-emotional adjustment for the Chinese group, but not the European American group.

Relations Between Socialization Goals and Parenting Styles

To examine the associations between socialization goals and parenting styles, zero-order correlations and hierarchical regressions were conducted. Three hierarchical regressions were conducted for each of the three parenting styles with (a) maternal education and cultural group, (b) socialization goals (centered), and (c) interaction terms (created by multiplying the centered socialization goal and cultural group) entered in three blocks, respectively. Results showed that maternal authoritative parenting style was positively related to the self-development socialization goal ($\beta = .53, p < .001$) as well as the collectivism socialization goal ($\beta = .32, p < .001$), but negatively related to the filial piety socialization goal ($\beta = -.16, p < .05$). No ethnic differences in these associations were found.

The authoritarian parenting style was positively predicted by the filial piety socialization goal ($\beta = .44, p < .01$) and negatively predicted by the self-development socialization goal ($\beta = -.28, p < .05$). The regression results on the authoritarian parenting style also indicated a near significant cultural group by collectivism socialization goal interaction ($\Delta R^2 = .04, p < .10; \beta = -.27, p < .05$). Follow-up analyses showed that the collectivism socialization goal positively predicted authoritarian parenting for the European American group ($\beta = .41, p < .01$), but not the Chinese group.

Maternal training parenting style was positively predicted by the filial piety socialization goal ($\beta = .38, p < .001$), but not the self-development or the collectivism socialization goals. There were no ethnic differences in these associations.
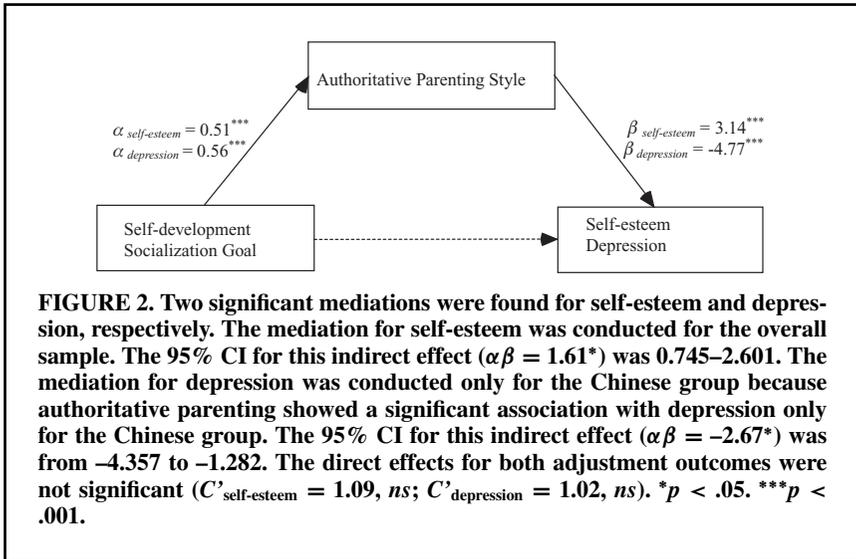
Test of the Mediation Processes

To examine how parenting styles mediated the associations between socialization goals and young adults' social-emotional outcomes, mediation analyses were conducted using the product of coefficients method described by MacKinnon and colleagues (MacKinnon, Fairchild, & Fritz, 2007; MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002). This method tests the product of the coefficients ($\alpha\beta$; i.e., mediation–indirect effect) relating (a) the independent variable (e.g., socialization goal) and the mediator (e.g., parenting style; α), and (b) the mediator and the dependent variable (e.g., social-emotional outcome) when the effect of the independent variable is adjusted (β). Both path coefficients, α and β, are obtained by using simple regressions involving one predictor and one dependent variable. If both path coefficients (α and β) are significant, there is evidence of mediation (MacKinnon, Fairchild, et al., 2007). The asymmetric confidence intervals can be
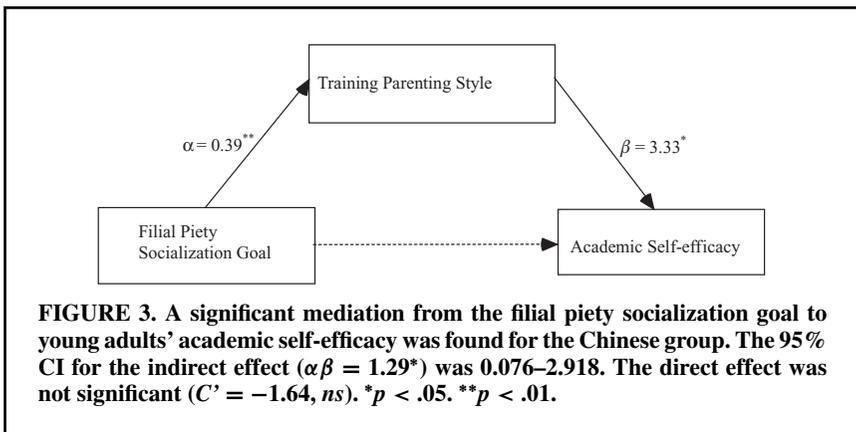
used to check the significant mediation effect such that if the values between the upper and lower confidence limits do not include zero, it suggests a statistically significant mediation–indirect effect (MacKinnon, Fritz, Williams, & Lockwood, 2007). This mediation analysis method utilizes the distribution of the product instead of the normal distribution and thus has greater statistical power and more accurate Type I error rates in comparison to other mediation analysis methods (MacKinnon et al., 2002). The PRODCLIN program developed by MacKinnon and colleagues was used in this study to obtain the 95% confidence intervals (CI) for the mediation effect (MacKinnon, Fritz, et al., 2007).

Based on the hypothesized mediations and the significant associations found among the socialization goal, parenting style, and outcome variables for the overall sample and each cultural group, 11 mediations in total were tested, including three mediations for the self-development socialization goal, four for the filial piety socialization goal, and four for the collectivism socialization goal. For the self-development socialization goal, the three mediations examining whether the perceived maternal authoritative parenting mediated the positive association between the perceived maternal self-development socialization goal and the three outcome variables (i.e., self-esteem, academic self-efficacy, and depression). The first two mediations were examined for the overall sample as the regression results reported previously do not suggest group differences in the associations, whereas the mediation for depression was examined for the Chinese group only because the perceived maternal authoritative parenting negatively related to depression for the Chinese participants only. Results showed a significant mediation for self-esteem and depression. As Figure 2 shows, the perceived maternal self-development socialization goal significantly and positively related to perceived maternal authoritative parenting ($\alpha = 0.51$, $p < .001$), which, in turn, significantly and positively related to self-esteem ($\beta = 3.14$, p $< .001$; indirect effect: $\alpha\beta = 1.61$, $p < .05$; lower limit $= 0.745$, upper limit $= 2.601$). The mediation for depression for the Chinese group was also significant (see Figure 2). Chinese participants' perceptions of maternal self-development goal positively related to their perceived maternal authoritative parenting ($\alpha = 0.56$, $p < .001$), which, in turn, negatively related to their depression ($\beta = -4.77$, $p < .001$; indirect effect $\alpha\beta = -2.67$, $p < .05$; lower limit $= -4.357$, upper limit $= -1.282$).

The hypothesized mediation in which the filial piety socialization goal positively related to Chinese participants' adjustment through training parenting was examined, specifically for academic self-efficacy because it showed a significant association with training parenting. Results showed that this mediation was significant (see Figure 3). Specifically, Chinese participants' perceptions of the maternal filial piety goal positively related to their perceived maternal training parenting ($\alpha = 0.39$, $p < .01$), which, in turn, positively related to their academic self-efficacy ($\beta = 3.33$, $p < .05$; indirect effect $\alpha\beta = 1.29$, $p < .05$; lower limit $= 0.076$, upper limit $= 2.918$). The same mediation process was not significant for European American participants. It was hypothesized that the maternal filial piety

FIGURE 2. Two significant mediations were found for self-esteem and depression, respectively. The mediation for self-esteem was conducted for the overall sample. The 95% CI for this indirect effect ($\alpha\beta = 1.61^*$) was 0.745–2.601. The mediation for depression was conducted only for the Chinese group because authoritative parenting showed a significant association with depression only for the Chinese group. The 95% CI for this indirect effect ($\alpha\beta = -2.67^*$) was from −4.357 to −1.282. The direct effects for both adjustment outcomes were not significant ($C'_{\text{self-esteem}} = 1.09$, ns; $C'_{\text{depression}} = 1.02$, ns). $^*p < .05$. $^{***}p < .001$.

goal might hinder European American participants' adjustment through the decreased use of authoritative parenting or authoritarian parenting. Two mediations were tested with authoritative parenting as the mediator for self-esteem and academic self-efficacy and both were found to be nonsignificant. Depression was not tested in the mediation because it did not show any association with authoritative parenting for the European American participants. Authoritarian parenting was not examined in the mediation either because it showed no association with the outcome variables for European American participants.

FIGURE 3. A significant mediation from the filial piety socialization goal to young adults' academic self-efficacy was found for the Chinese group. The 95% CI for the indirect effect ($\alpha\beta = 1.29^*$) was 0.076–2.918. The direct effect was not significant ($C' = -1.64$, ns). $^*p < .05$. $^{**}p < .01$.

We then tested the hypothesized mediation in which the collectivism goal positively related to Chinese participants' adjustment through training parenting, specifically for academic self-efficacy because it showed a significant association with training parenting, but the results showed that the mediation was not significant. It was somewhat exploratory to examine whether the authoritative and authoritarian parenting mediated the collectivism goal and outcomes. Because the collectivism goal was only found to be related to authoritarian parenting for the European Americans and because no significant associations between authoritarian parenting and outcome variables were suggested by the regression results for this group, no mediation tests were conducted for authoritarian parenting. With regard to the authoritative parenting, two mediations involving the collectivism goal and authoritative parenting were conducted for self-esteem and academic self-efficacy for the overall sample because no group differences were found in the associations between the collectivism goal and authoritative parenting and between authoritative parenting and the two outcome variables (i.e., self-esteem and academic self-efficacy). Both mediations were significant (see Figure 4). Specifically, the perceived maternal collectivism goal positively related to perceived maternal authoritative parenting ($\alpha = 0.36$, $p < .001$), which, in turn, positively related to participants' self-esteem ($\beta = 3.89$, $p < .001$; indirect effect $\alpha\beta = 1.42$, $p < .05$; lower limit = 0.653, upper limit = 2.361) and academic self-efficacy ($\beta = 3.57$, $p < .001$; indirect effect $\alpha\beta = 1.30$, $p < .05$; lower limit = 0.494, upper limit = 2.344). As authoritative parenting only significantly related to depression for the Chinese participants, the mediation in which the perceived maternal collectivism goal negatively related to depression through the increased perceived maternal authoritative parenting was examined for the Chinese group. The results showed that this mediation was significant ($\alpha = 0.43$, $p < .01$; $\beta = -4.26$, $p < .001$; indirect effect $\alpha\beta = -1.82$, $p < .05$; lower limit = -3.349, upper limit = -0.637).

Discussion

In the present study we compared the associations among perceived maternal socialization goals, parenting styles, and their relations to social-emotional adjustment between Chinese and European American young adults. The mediation processes presented in Darling and Steinberg's (1993) parenting model in which socialization goals relate to socialization outcomes through parenting styles were examined. Results indicated culturally similar relations between socialization goals and parenting styles and between socialization goals and social-emotional outcomes across both cultural groups. However, culturally specific relations were also found in the links between parenting styles and social-emotional outcomes and in the mediation processes.

Socialization Goals

The self-development socialization goal emphasizes the development of self and reflects the independent interpersonal relationships that are more pronounced
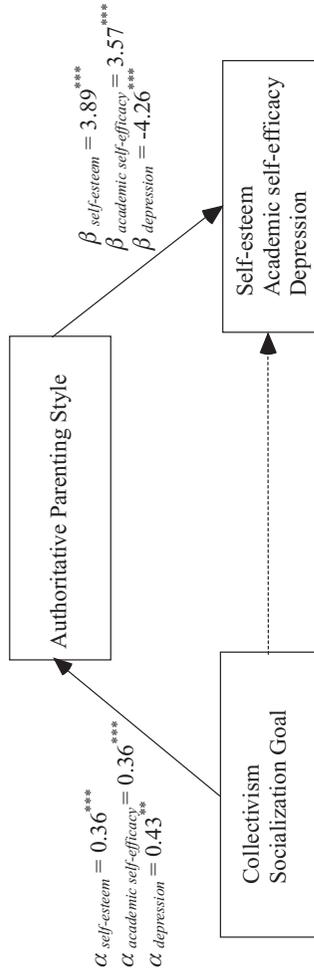
FIGURE 4. Three significant mediations involving the collectivism goal and authoritative parenting were found for self-esteem, academic self-efficacy, and depression, respectively. The first two mediations were found for the overall sample. The 95% CI for the indirect effect for self-esteem ($\alpha\beta = 1.42^*$) was 0.653–2.361 and for academic self-efficacy ($\alpha\beta = 1.30^*$) was 0.494–2.344. The significant mediation for depression was only found for the Chinese group because authoritative parenting showed a significant association with depression only for the Chinese group. The 95% CI for this indirect effect ($\alpha\beta = -1.82^*$) was from -3.349 to -0.637. All three direct effects were not significant ($C'_{\text{self-esteem}} = -0.48$, ns; $C'_{\text{academic self-efficacy}} = -1.79$, ns; $C'_{\text{depression}} = -0.05$, ns). $^*p < .05$. $^{**}p < .01$. $^{***}p < .001$.

in individualistic cultures (Chao, 2000; Triandis, 1989). In comparison, the collectivism socialization goal captures socially and interdependently oriented parental goals that emphasize collectivistic attributes (e.g., harmonious interpersonal relationships, obedience, modesty, dependence on the group). Consistent with this understanding, we study found that European American young adults reported a higher level of the maternal self-development socialization goal, whereas Chinese participants reported a higher level of the collectivism socialization goal. These cultural differences suggest that parents endorse socialization goals that are suitable for their children in their respective cultures (Greenfield, 1994). Results also show a positive association between the collectivism socialization goal and the self-development socialization goal in both cultural groups. This result suggests that parents in both cultures may endorse multiple socialization goals. Previous research has shown that Chinese children display social relatedness in the context of relationships and family, but have a strong autonomous self in the domain of learning and achievement (Wang & Li, 2003). To socialize children to adapt to these different contexts, parents may need to endorse multiple socialization goals. Therefore, the collectivism goal and the self-development goal are not necessarily contradictory and may both be endorsed by parents.

Inconsistent with previous findings (Chao, 2000), we did not find that Chinese mothers endorsed the filial piety socialization goal more than European American parents as perceived by the participants. This difference may be due to the different methodologies and sample characteristics of these two studies. For example, Chinese immigrant mothers, in comparison to Chinese parents living in China, may feel a particular necessity to strengthen filial piety to maintain familial ties when facing the hosting American cultures. It could also be that Chinese young adults failed to perceive a high level of the filial piety goal held by their parents or they might have adjusted their responses when referencing to the high normativeness of filial piety in the Chinese culture. Future research may examine the normativeness of socialization goals as well as employ a multi-informant methodology to explore these possibilities.

Parenting Styles

Consistent with previous research (Chao, 1994, 2000; Dornbusch et al., 1987), Chinese mothers were perceived to use more authoritarian parenting than European American mothers. However, this study also showed that Chinese young adults perceived their mothers to use the same level of authoritative parenting as their European American counterparts did. Some previous research has indicated that Chinese parents display less warmth and acceptance and allow less democratic participation in parenting than do their Western counterparts (Chen et al., 1998; Wu et al., 2002). However, other studies do not support such findings. For example, Chao (1994, 2000) found that immigrant Chinese and European American mothers endorsed equal amounts of authoritative parenting. Observational research also

shows that Chinese American parents are as warm as European American parents when interacting with their children (Jose, Huntsinger, Huntsinger, & Liaw, 2000). The latter findings and the present study suggest that Chinese mothers do not necessarily endorse less accepting and warm attitudes in parenting than European American mothers, although they also may endorse more authoritarian parenting.

Similar to Supple and colleagues' (2004) findings, this study found that culturally similar associations mainly showed for the authoritative parenting style, whereas culturally specific associations were found for the authoritarian parenting style. For both cultural groups, more perceived maternal authoritative parenting was associated with greater self-esteem and greater academic self-efficacy. The negative relation between authoritative parenting and Chinese participants' depression further indicated that Chinese young adults benefit from authoritative parenting. These findings add support to previous findings about the positive effects of authoritative parenting on adjustment among Chinese children and adolescents (Chen et al., 1997, Eisenberg et al., 2009; Supple et al.; Zhou et al., 2004).

Unlike the European American participants, Chinese young adults seem to benefit from the maternal authoritarian parenting style as indicated by its negative relation to participants' depression. This association suggests that the absence of negative effects or even the beneficial effects of authoritarian parenting on Chinese or Chinese Americans extends beyond the academic domain, the latter of which has been examined in more detail previously (Chao, 2001; Dornbusch et al., 1987; Leung et al., 1998; Steinberg et al., 1992). Our findings are consistent with the previous studies that support culturally specific associations for the authoritarian parenting style (Supple et al., 2004; for a review, see Chao & Tseng, 2002). These culturally specific associations may be explained, in part, by parenting norms and child expectations. Previous research has shown that cultural normativeness moderates the effect of parenting behaviors on children's development (Lansford et al., 2005). Lansford and colleagues found that the more normative the use of physical discipline was in a culture, the weaker the association between maternal use of physical discipline and adverse child outcomes. Similarly, authoritarian parenting is prevalent and normative in the Chinese culture. Thus, Chinese children and young adults may expect to receive more authoritarian parenting from their parents than their European American counterparts. Therefore, the negative effect of authoritarian parenting may be weakened. Further, authoritarian parenting may even be seen as a concomitant of parental care and concern in the Chinese culture, with the absence of controlling parental behaviors perceived as an index of parental aloofness. With such expectations, Chinese children and young adults may be less likely to be adversely impacted by authoritarian parenting. Although this study suggests culturally specific associations for the authoritarian parenting style, it should be noted that other studies suggest cultural similarity on the associations between authoritarian parenting and adjustment difficulties for Chinese children (Chen et al., 1997; Eisenberg et al., 2009; Zhou et al., 2004; Zhou et al., 2008). Some research suggests that it may be the punitive aspects of authoritarian

parenting, instead of other aspects (e.g., authoritarian control, directiveness), that lead to cross-cultural similarities in the linkages between authoritarian parenting and maladjustment (Bugental & Grusec, 2006; Rudy & Grusec, 2006). Thus, close examinations of the research designs and the authoritarian parenting construct are needed when comparing the results across studies.

The present research found weak associations between the perceived maternal training parenting style and young adults' social-emotional outcomes. However, perceived maternal training parenting did differentially relate to academic self-efficacy for the two cultural groups. It showed a significant and positive association with Chinese participants' academic self-efficacy, but a near significant and negative one for European American participants. The teaching and educating practices involved in training parenting may be especially helpful in building self-efficacy in the academic domain for Chinese young adults. However, such practices may reduce European American young adults' feeling of autonomy and confidence in their academic work. The positive association found for Chinese participant is consistent with previous findings on the positive effects of training parenting for Chinese youth (Stewart et al., 2002). It also adds support to researchers' argument that training parenting may have a positive connotation in socialization for the Chinese (Chao, 1994). The child-centered parental control involved in training parenting may be a unique socialization antecedent of positive attainment among Chinese children and young adults.

Socialization Goals and Parenting Styles

Cross-culturally similar relations between socialization goals and parenting styles were found in this study. In both cultural groups, a higher level of the maternal self-development socialization goal was associated with a higher level of the authoritative parenting style and lower authoritarian parenting. Parents who hold self-development socialization goals may emphasize children's development of the self, such as autonomy, self-reliance, and self-expressiveness. To achieve these goals, the authoritative parenting style is ideal as it encourages positive self-concept and self-development. Conversely, an authoritarian parenting style is unlikely to be used with such socialization goals as it may hinder children's self-development. In contrast, young adults' perception of the maternal filial piety socialization goal was positively related to authoritarian and training parenting and negatively related to authoritative parenting. Similar findings have been reported in a study involving mothers of preschoolers in China (Rao et al., 2003). Compared to authoritative parenting, authoritarian and training parenting are more likely to facilitate the fulfillment of filial obligations by assuring parental authority and child obedience and promoting the desired social behaviors in the younger generation.

The examination of associations between the proposed construct, the collectivism socialization goal, and parenting styles was somewhat exploratory. Results

indicated that the perceived maternal collectivism socialization goal was positively related to maternal authoritative parenting in both cultural groups. This finding seems to suggest that authoritative parenting facilitates the achievement of collectivism socialization goals. Authoritative parents emphasize the warmth and connection between parents and children and foster their children's positive self-development, both of which provide an important foundation for young adults to interact positively with peers and strengthen connectedness with peers. These effects may facilitate the fulfillment of parents' collectivism socialization goals.

However, cultural differences emerged in the relations between the collectivism socialization goal and the authoritarian parenting style. For European Americans, the perceived maternal collectivism socialization goal was positively related to their use of authoritarian parenting. In contrast, the perceived maternal collectivism socialization goals were independent from their use of authoritarian parenting for Chinese participants. Previous research has shown that authoritarianism is helpful to promote collectivist aims (Rudy & Grusec, 2006). Thus, authoritarian parenting can be an effective way to achieve collectivism socialization goals. Additionally, European Americans may view both the collectivism socialization goal and authoritarian parenting as imposing a demand of compliance with social standards or norms in the environment. This commonality may partly explain the positive associations. In the Chinese cultural context, however, authoritarian parenting is highly normative. Its effectiveness to achieve collectivism goal may be reduced. Future researchers should investigate the moderating effects of the normativeness of authoritarian parenting in the relations between collectivism socialization goals and authoritarian parenting.

Socialization goals related similarly to adjustment outcomes for both cultural groups. Perceived maternal self-development and collectivism socialization goals were positively related to young adults' social-emotional adjustment. These two types of socialization goals are child-oriented goals that promote either the self development or positive interpersonal interactions. Filial piety socialization goals, on the other hand, were related to young adults' adjustment difficulties. Filial piety socialization goals may convey parents' high expectations for young adults to perform and fulfill their roles and obligations in school and in the family. Young adults' well-being may be threatened if they feel they cannot measure up to such high expectations. Therefore, some aspects of young adults' social-emotional adjustment may be hindered when they perceive high parental filial piety socialization goals (e.g., lower self-esteem and higher depression).

Mediation Processes

This study drew on Darling and Steinberg's (1993) parenting model and examined the proposed mediation processes in which parents achieve their parental socialization goals through utilizing parenting styles. Significant mediations were

found for each socialization goal. Specifically, for both groups, the positive associations between the perceived maternal self-development goal and young adults' self-esteem were explained by the perceived maternal use of authoritative parenting. A similar mediation was also found for Chinese participants' adjustment with lower depression. It was exploratory to examine the mediation processes for the proposed collectivism socialization goal. Results showed similar mediation associations for the collectivism goal as for the self-development socialization goal. Specifically, for both cultural groups, the perceived maternal collectivism goal positively related to adjustment, such as higher self-esteem and academic self-efficacy, through the use of authoritative parenting. A similar mediation was also found for Chinese participants' adjustment with lower depression. These mediation results suggest cross-culturally similar parenting processes when parents endorse self-development and collectivism socialization goals. Furthermore, authoritative parenting seems an effective means to attain both socialization goals and to promote positive social and emotional development among young adults in both cultures.

The significant mediation on the filial piety goal for Chinese participants suggests that when Chinese mothers endorse the filial piety socialization goal for their children, they are more likely to use training parenting, which, in turn, relates to higher academic self-efficacy among their young adult children. This mediation process was not significant for the European American participants. One important filial piety obligation for Chinese children and young adults when they are school aged (from grade school to college) is to perform well academically (Ho, 1996). To fulfill this filial piety goal, training parenting is an ideal approach that parents can use to teach and educate their children to perform well in school, which positively contributes to children's feeling of efficacy about schoolwork. This culturally specific mediation process underlines the importance of understanding how parents achieve socialization goals using different parenting styles in the cultural context.

Although this study provides some empirical information regarding the mediation process in the parenting model provided by Darling and Steinberg (1993), it has to be noted that not all associations between socialization goals and child outcomes were explained by parenting styles. The mediation mechanism may be more complex than what the parenting styles examined in the study can fully explain. Besides parenting styles, parenting practices may also mediate the associations between socialization goals and outcomes. In addition, it should also be noted that parenting style and parenting practice may interact to influence socialization processes such that parenting style serves as a contextual variable that moderates the association between parenting practice and socialization outcomes (for a discussion, see Darling & Steinberg, 1993). Furthermore, domain specificity may influence the strength of the mediation. If the socialization goals, parenting styles or practices, and child outcomes all refer to one specific type of development (i.e., domain specificity), researchers may observe a stronger mediation process.

Future researchers should consider the complexity and domain specificity when examining the mediation parenting processes.

Limitations and Future Directions

This study contributes to our understanding of parenting and its effects on children in the cultural context; however, some limitations should also be noted. First, the concurrent data used in this study do not allow causal inferences for the associations. Bidirectional influences between socialization goals and parenting styles as well as between socialization goals and parenting styles and outcomes may also exist. A longitudinal design is necessary to have a stricter examination of the mediation process and causal effects. Second, although young adults' self-report of parenting reflects how they receive and construct parental beliefs and behaviors and is predictive of their adjustment (Bush et al., 2002), the self-report may be partial or biased. Additionally, the retrospective report may be biased by their later experiences within the family and also possibly the changes in parenting norms in the society in the past couple of decades. A multi-informant methodology and a projective approach are needed in further research to provide a more accurate examination of socialization goals and parenting styles. Nevertheless, the recalled parenting styles reveal the most influential aspects of parenting styles that young adults perceived and are relevant to their adjustment (Kim & Chung, 2003; Manian et al., 1998). Considering the limited research conducted on the effects of socialization goals on the adjustment outcomes for emerging adulthood, this study provides a useful addition to the literature. Furthermore, the aforementioned consistent findings between this study and previous studies using maternal report (Chao, 2000; Rao et al., 2003) indicate the validity of the present findings.

Additionally, the three outcomes examined in this study were derived from research using Western samples. They may not necessarily represent the most pertinent adjustment indices in the Chinese cultural context. What is considered well adjustment may vary depending on the cultural context. For instance, although behavioral inhibition is associated with socioemotional and school difficulties in Western cultures, it relates to adjustment and positively predicts future adjustment (e.g., peer liking, cooperative behavior, school competence) in the Chinese culture (Chen, Rubin, & Sun, 1992; Chen, Chen, Li, & Wang, 2009; for differences between urban and rural migrant Chinese children, see Chen, Wang, & Wang, 2009). Including a wider range of adjustment measures, especially the ones relevant to the Chinese culture, may help explain why parents hold certain socialization goals and how they utilize certain parenting strategies to help children adjust in their cultures.

Although the cross-cultural differences found in this study are interesting and informative, we obtained the two samples from only two universities. Thus, the findings of this study may not be generalizable to all Chinese and European

American groups. Further work is needed to examine the replicability of the findings to larger and more representative samples. Additionally, the data presented in this study cannot reflect the changing cultures, which may potentially alter the associations among socialization goals, parenting styles, and socialization outcomes. Previous research on behavioral inhibition among Chinese children has demonstrated that psychological mechanisms (e.g., peer acceptance or rejection toward shyness) change as the culture evolves (Chen et al., 1992; Chen, Cen, Li, & He, 2005). Chinese parents may modify their socialization goals and parenting behaviors while the cultural context develops. How the changing culture may explain the cross-cultural findings and whether the associations found in this study may still be observed in the future awaits further investigation. Last, this study only examined maternal parenting styles and socialization goals. Future researchers may extend the investigation to fathers and examine the potential parent gender differences.

In summary, we compared European American and Chinese young adults' perceived maternal socialization goals and parenting styles in relation to their social-emotional adjustment. Results of this study indicate both culturally universal and culture-specific associations between parenting factors and child outcomes. This study provided partial empirical support to the mediation parenting model proposed by Darling and Steinberg (1993). A collectivism socialization goal was proposed in this study to represent one important cluster of socialization goals that may be especially endorsed by parents living in cultures with a strong collectivistic orientation. The findings of this study suggest that the examination of parenting at the belief level facilitates our understanding of the cultural meanings of parenting behaviors and the cultural similarities and differences in parenting behaviors and their relations to socialization outcomes.

ACKNOWLEDGMENTS

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