

## Parenting Behaviors and Adolescent Psychosocial Adjustment in China: An Indigenous Perspective

By: [Yudan C. Wang](#), [Andrew J. Supple](#)

**This is an Author's Accepted Manuscript of an article published in**

Wang, Y.C. & Supple, A.J. (2010). Parenting behaviors and adolescent psychosocial adjustment in China: An indigenous perspective. *Marriage & Family Review*, 46(6-7), 480-497.

**as published in the *Marriage & Family Review* 2010 [copyright Taylor & Francis], available online at: <http://dx.doi.org/10.1080/01494929.2010.528724>**

### **Abstract:**

This study considered the measurement properties of two indigenous constructs assessing Chinese parenting and parent–child relationships. The study also examined whether the relationships between *guanjiao*, *xiao*, and adolescent psychosocial adjustment, as theorized in previous scholarly work, hold for contemporary families in mainland China. Data were collected from a sample of 144 early adolescents in a southern Chinese city. Results suggested that *guanjiao* was best represented by two indicators: *guan*, which assessed parental monitoring, and *jiao*, which assessed parental teaching and expectations. Moreover, only *jiao* was associated with adolescent depressive symptoms and misconduct. *Xiao* appeared to be an important mediator between parenting behaviors and adolescent outcomes and may play a key role in predicting Chinese early adolescents' adjustment.

**Keywords:** Adolescents | China | Indigenous | Parenting | Perspective

### **Article:**

## **INTRODUCTION**

Research on parenting and parent–adolescent relationships in China is inconsistent in describing Chinese parenting and how traditional and culturally valued parenting behaviors relate to adolescent outcomes. For example, Wu (1996) suggested that Chinese parents believe in strong discipline and that firm control of children's behaviors and attitudes will result in “ideal” children who are obedient and high achieving. In contrast, Xia et al. (2004) found that, from adolescent children's own perspectives, Chinese parents were not as controlling as described in the literature and that Chinese adolescents valued autonomy as much as American adolescents. Although more than a decade ago Chao (1994) called for a renewed perspective in studying Chinese parenting that utilizes indigenous concepts related to *guan*, researchers have yet to explicitly study this concept with samples of adolescents from China (see Stewart et al., 1998, for an exception). The lack of research employing indigenous concepts of Chinese parenting is significant because *guanjiao* (the full term of *guan*) and *xiao* (filial piety) are considered essential concepts

for understanding family socialization in China and are hypothesized as critical in bringing about positive developmental outcomes in children (Ho, 1986; Wu). To date, however, many studies of parent–adolescent relationships in China focus on constructs developed in U.S.-based research and draw conclusions regarding *guanjiao* by studying parenting related to outward expressions of warmth, parental monitoring, and autonomy granting (Bush, Peterson, Cobas, & Supple, 2002; Peterson, Cobas, Bush, Supple, & Wilson, 2004). Little is known, consequently, about how parenting related to indigenous Chinese concepts of parenting is related to early adolescents' internalized values related to filial piety or to developmental outcomes. Rather, how these conceptualizations of parenting relate remains largely speculative, with few empirical data to support the expected associations between *guanjiao*, *xiao*, and adolescent outcomes.

The present study aims at examining whether the relationships between *guanjiao*, *xiao*, and adolescent adjustment, as theorized in previous scholarly work, hold for contemporary families in mainland China. As such, the study will contribute to the literature on adolescent development in China in unique ways. First, by developing measures for *guanjiao* and *xiao* as well as obtaining initial evidence of measurement reliability and validity, researchers will have easier access to these indigenous concepts in future studies. Second, assessing associations between these two indigenous Chinese constructs and adolescent outcomes may have important implications for addressing individual adjustment accompanying the sociocultural changes in China in the past few decades (Xi, Sun, & Xiao, 2006). That is, as China has undergone tremendous economic growth in the past two decades, there is concern that young Chinese are being lured away from Confucian values that emphasize order and hierarchy within families (Chen, 2005; Ho, 1986). The shift from more traditional modes of interaction is more readily apparent for adolescents because they are increasingly likely to question the authority of their parents and less willing to accept rules and discipline (e.g., Xinhua News Agency, 2007). Findings of the current study will shed light on to what extent traditional models of family socialization protect adolescents from maladjustment in a largely Westernized sample.

## LITERATURE REVIEW

### **Traditional Chinese Parenting: The Role of *Guanjiao* and *Xiao***

*Guanjiao* and *xiao* comprise the core of Chinese family socialization processes. Conceptualizations of Chinese parenting emphasize the promotion of impulse control and early training of children as the primary goals of family socialization and child development. In reference to “optimal” parenting of Chinese children, Wu (1996) proposed the term *guanjiao* to define primary parental responsibilities in governing and teaching children. Ideologies about *guanjiao* are represented in common Chinese sayings such as, “It is parents' fault if a child is not well-disciplined” (*yang bu jiao, fu zhi guo*). A person who behaves in socially unacceptable ways or who seems lazy would be considered as resulting from a “lack of family discipline and care” (*mei jiao yang*, or in want of *guanjiao*). *Guanjiao* involves parental monitoring, training, and providing an organizational structure for children in the home that

convey the importance of family obligation, respect for parents, and achievement in school (Lau & Cheung, 1987). In other words, behavioral indicators of *guanjiao* mainly include monitoring and teaching, and parental warmth is intertwined with monitoring and control instead of being outwardly expressed. A key difference between *guanjiao* and typical conceptualizations of ideal parenting from a Western perspective (i.e., authoritative parenting that is comprised of high levels of monitoring, warmth, autonomy granting and low levels of harsh discipline) is that *guanjiao* is not intended to promote independence or self-esteem (cf. Peterson et al., 2005). Rather, according to Chinese traditional beliefs, the goal of *guanjiao* is to promote obedience to authority and a sense of familial responsibility that emphasizes academic achievement and maximal efforts exerted in school for school-age children and adolescents through parental control and support.

While parents in Western societies are often characterized as primarily valuing independence, high self-esteem, and assertiveness in their adolescent-aged children (Peterson et al., 2005), Ho (1986) suggested that dependency, obedience, and achievement motivation are the major goals of Chinese family socialization. The expected outcome of Chinese parental socialization is captured by the term *xiao* (Wu, 1996) which represents feelings of filial devotion and the internalization of parental expectations. *Xiao* is manifest to the extent that Chinese children and adolescents are dependent on parents, obey and respect parental authority, and internalize the importance of achievement in school. In the Confucius classic *Book of Xiao* (Rosemont & Ames, 2009), *xiao* is taught as the root of all human virtues and as the key to maintaining a society that is orderly and prosperous by making it an obligation that young people follow parents' teaching, that adult children take care of senior parents, that workers are loyal to employers, and that authority is to be respected and obeyed. Even though some of the traditional elements involved in *xiao* have been adjusted or lost over the 2000 years since the time of Confucius, *xiao* is still an important child socialization goal for many Chinese parents and for Chinese society more broadly. "Have respect for teachers and seniors; have *xiao* for parents" is written in national behavioral codes for primary school and high school students. Consequently, the concept of *xiao* is an important part of a child's life growing up in a Chinese family because *xiao* is believed to be the first step in inculcating desirable development outcomes in children. Moreover, the development of a strong sense of *xiao* can be considered as an indication that a Chinese young person has been successfully socialized by parents. To date, studies have rarely considered *xiao* either as an outcome of the parental socialization process or as a correlate of other developmental outcomes for Chinese adolescents. In this study we address that gap by considering how *xiao* might mediate associations between *guanjiao* and early adolescent outcomes.

### ***Xiao* as a Mediator of the Relationship Between *Guanjiao* and Adjustment Outcomes**

Although scholars have discussed the critical value of *guanjiao* and *xiao* in studying Chinese family socialization, these two constructs have never been empirically linked to one another (cf. Yeh & Bedford, 2004). As a result, though there is a strong assumption that *guanjiao* leads children to develop *xiao* (Wu, 1996), no data exist to test and support this relationship.

## **PATH 1: *GUANJIAO* –*XIAO* —DEPRESSIVE SYMPTOMS**

Studies using typical Western parenting measures suggested that parental warmth and monitoring are associated negatively with Chinese adolescent depressive symptoms, whereas harsh discipline and restrictive parenting are associated positively with Chinese adolescent depressive symptoms (X. Chen, Liu, & Li, 2000; Kim & Ge, 2000). The relationship between *guanjiao* and adolescent depressive symptoms needs to be understood in the specific cultural niche where participants are located. As a traditional prescription for Chinese parenting, *guanjiao* is unlikely to be considered harsh discipline for Chinese children. Rather, it is likely to communicate to adolescents that they have caring and responsible parents. Therefore, children will benefit psychologically from parental *guanjiao*. Whether *guanjiao* can be effective in protecting children from developing depressive symptoms, however, depends on the strength of *xiao* in children, which results from the child's reception to and acceptance of *guanjiao*. First, a high level of *xiao* indicates children's willingness to establish and maintain close relationship with parents, which ensures that children are given the best possible care and support by parents. In this way, *xiao* mediates parents' support and care (*guanjiao*), to protect children from suffering depressive symptoms. Second, a high level of *xiao* means children's willingness to appreciate and follow parents' *guanjiao* to keep themselves on the right track and be recognized as “good children,” which makes children feel good about themselves. Taken together, it is hypothesized that *xiao*, elicited by *guanjiao*, is associated negatively with depressive symptoms.

## **PATH 2: *GUANJIAO*–*XIAO*— SCHOOL MISCONDUCT**

For traditional Chinese parents, proper conduct in children is an important outcome that is considered to be both a goal for children and an indicator of successful parenting. Thus, Chinese parents expect that their children will avoid misconduct in school when children experience high levels of *guanjiao*. Parental monitoring for proper behavior, for example, is a salient feature of *guanjiao* and is intended by parents to reinforce traditional Chinese beliefs regarding valued aspects of child development, such as obedience. Consistent with these arguments, previous research suggests that parental monitoring and parental valuation of tradition reduce the likelihood that Chinese children will engage in problem behaviors (C. Chen, Greenberger, Lester, Dong, & Guo, 1998; Feldman, Rosenthal, Mont-Reynaud, Leung, & Lau, 1991). Moreover, given that *xiao* is expected to derive from *guanjiao*, which represents internalized parental expectations, adolescents who are high in *xiao* will conform to parental expectations and requirements and avoid school misconduct. In other words, if parents' *guanjiao* can successfully elicit adolescent *xiao*, adolescents will be less likely to get involved in school misconduct. In sum, *guanjiao* is expected to be linked with school misconduct both directly and indirectly through *xiao*.

## **Research Questions**

The current study examines the validity and reliability of the measurement scales of *guanjiao* and *xiao* in a southern mainland Chinese sample of early adolescents. The relationship between *guanjiao* and adolescent adjustment, with *xiao* as a partial mediator, is tested. Tentative hypotheses are summarized as follows (see Figure 1).

**[Figure 1 Omitted]**

1. *Guanjiao* is associated negatively with adolescent depressive symptoms. *Xiao* is a partial mediator between *guanjiao* and adolescent depressive symptoms.
2. *Guanjiao* is associated negatively with adolescent school misconduct. *Xiao* is a partial mediator between *guanjiao* and adolescent school misconduct.

The current study goes beyond previous studies in several ways. First, the validity and reliability of indigenous Chinese parenting constructs is examined. Second, mediation models with the indigenous concept *xiao* are included to partially explain how *guanjiao* reduces problematic outcomes in Chinese early adolescents. Third, attention is focused on problems in adolescent development, instead of the popular outcome measure of academic achievement for Chinese samples. Finally, data are collected from an area in China that has been infrequently studied by Western researchers.

## **METHODS**

### **Sample**

Early adolescents from a primary school in Guangzhou, the capital city of Guangdong Province, China, were surveyed in 2007 and 2008. Guangzhou (population 10 million), like many other coastal cities of southern China, is considered an industrialized city. The sample for this study, consequently, might not be representative of “average” early adolescents in China but rather might be suggestive of life experiences of students residing in medium to large cities. Although the generalizability of findings to Chinese youth as a whole may be questionable, this sample is desirable because developmental research on contemporary Chinese parents and children remains concentrated in Beijing, Shanghai, Hong Kong, Taiwan, and North America, whereas relatively little research conducted in other parts of China is directly available to American readers. Moreover, because Guangzhou has been geographically distant from the central government throughout its local 2000-year history, and, more recently, has been a regional hub of economic development activities, variability in patterns of family socialization is likely to be more evident than would be found in areas with stronger political forces to enforce conformity to tradition (e.g., Beijing) or in largely Westernized areas of China (e.g., Hong Kong).

All students from the fourth, fifth, and sixth grades (245 in total) were invited to participate in the survey. The final sample was comprised of 144 students (52% boys and 48% girls) for whom parental consent forms were obtained. The relatively low response rate was due to the fact that many parents were mistrustful of the unfamiliar consent procedures (based on American

institutional review board protocols). After parental consent and adolescent assent were obtained, participating students were gathered together in a lecture hall at school to complete the survey within a class period. The principal administered the survey and several other teachers were present to answer questions and to collect completed questionnaires. Participants were between 10 and 13 years of age (mean = 10.91, standard deviation = 0.9). Eighty-three percent of participants reported that they lived with both of their parents. Thirty-four percent of the participants reported that their families' income level was above average, and 55% indicated a family income that was "about average." Twenty-two participants reported that he or she ranked below the 40th place in tests and exams out of 43 children in each classroom, 60 ranked between 20th and 39th, and 61 ranked 19th or above in their classroom. Overall, the sample was quite homogenous in terms of age and family socioeconomic status but diverse in terms of academic performance.

## Measures

### CHINESE PARENTING: *G UANJIAO*

*Guanjiao* was operationalized as a combination of active monitoring and parental expectations and was assessed using a 10-item scale. The items were derived from the Parental Monitoring Scale (PMC) and the Chinese Parental Control Scale (CPCS), both developed by Shek (2005). Participants responded to the same items for both mothers and fathers to indicate how much monitoring and control they experienced from each parent. Response options ranged from 1 (*strongly disagree*) to 4 (*strongly agree*). For both the paternal and the maternal scales, parallel analysis (O'Connor, 2000; Patil, Singh, Mishra, & Donovan, 2008) suggested that two factors should be extracted. Inspection of the rotated components revealed two distinct constructs (see Table 1). The first construct, labeled *guan*, primarily assessed parental monitoring and surveillance. Sample items included (a) "My father/mother actively understands my situation at school" and (b) "My father/mother requires me to tell him/her what I do when I am with my friends." The second construct, labeled *jiao*, primarily assessed parental encouragement of filial piety and obedience through teaching and reasoning. Sample items included (a) "My father/mother expects me to have good virtues and behavior" and (b) "My father/mother expects me to be obedient." Cronbach's alphas for *guan* were .84 and .85 for the paternal and maternal scales, respectively, and .67 and .74 for *jiao*.

[Table 1 Omitted]

### *XIAO*: INTERNALIZED FILIAL RESPONSIBILITY

A nine-item scale was constructed with items derived from the literature on Chinese parental socialization to assess *xiao* toward both mother and father (Chao, 1994; Ho, 1986; Shek, 2005; Shek & Chan, 1999). Sample items included "I respect my mother/father," "I should live up to my mother's/father's expectations of me," and "I feel that how my father/mother disciplines me is reasonable." Participants responded in terms of a Likert scale ranging from 1 (*strongly disagree*)

to 4 (*strongly agree*). Parallel analysis suggested that only one factor should be retained (see Table 2). Cronbach's alphas for *xiao* were .88 for the paternal scale and .85 for the maternal scale.

## **DEPRESSIVE SYMPTOMS**

### **[Table 2 Omitted]**

Depressive symptoms were assessed with the Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977). The 20-item scale assessed the frequency that participants had depressive symptoms such as fearfulness, loneliness, and poor appetite during the past two weeks. Sample items included “I felt that everything I did was an effort” and “People were unfriendly.” Responses choices ranged from 0 (*rarely*) to 3 (*most or all of the time*). Cronbach's alpha was .93.

## **SCHOOL MISCONDUCT**

A 10-item scale was constructed for this study to assess the frequency of students' school misconduct based on telephone interviews (conducted prior to the school-based survey) with Chinese teachers who identified typical problem behaviors among their students. The scale assessed how often participants fight, bully classmates, fail to turn in homework, copy homework, lie to parents or teachers, and fail to complete group tasks such as cleaning the classroom. Student participants indicated their responses on a Likert scale ranging from 1 (*never*) to 5 (*always*). The items “theft,” “skip school,” and “cheat on exams” were dropped from the scale due to low correlation with other items. Due to infrequent occurrence of most of the items, new variables were created to indicate whether participants ever got involved in a certain act of misconduct (0 versus 1 for each act of misconduct). A count across these items led to a composite score of how many different types of misconduct a participant was ever involved in.

## **Plan of Analysis**

### **PRELIMINARY ANALYSES**

Participants with missing data for 10 or more items were excluded from analyses, which reduced the sample from 144 to 136. Missing data for the 136 participants were imputed using the expectation-maximization (EM) procedure. Associations between demographic variables and study variables were assessed to determine whether any of the demographic variables needed to be controlled in regression analyses. Zero-order correlations were performed to gauge the criterion validity of measurement scales and used as initial evidence in support of the hypothesized associations between study variables.

### **MEDIATION TESTS**

Regression analyses were used to test the two hypothesized paths (see Figure 1). Baron and Kenny's (1986) procedure was used to test mediation effects. For each path, full mediation was established with the following four steps:

1. The dependent variable (e.g., school misconduct) is regressed on the independent variable (*guan*).
2. The potential mediator (e.g., *xiao*) is regressed on the independent variable.
3. The dependent variable is regressed on the potential mediator controlling for the independent variable.
4. The dependent variable is regressed on the independent variable controlling for the potential mediator.

## RESULTS

### Descriptive Analyses

Of the demographic variables, child age correlated significantly with paternal *guan* ( $r = -.23, p < .01$ ) and with maternal *guan* ( $r = -.35, p < .01$ ), which suggested that parents tended to supervise their children less as children grew older. Also, academic ranking correlated significantly with maternal *guan* ( $r = .21, p < .05$ ) and with paternal *jiao* ( $r = .18, p < .05$ ), suggesting that children who attained better academic standing tended to experience more supervision from their mothers and more teaching (through reasoning) from their fathers. *t*-Tests indicated that boys and girls did not differ in any of the study variables. Nevertheless, none of the demographic variables (e.g., child sex, child age, academic ranking, and family wealth) were significantly correlated with the outcome variables, namely, adolescent school misconduct and adolescent depressive symptoms. Consequently, none of the demographic variables were included as controls in regression analyses.

Table 3 presented the zero-order correlations for all study variables. Criterion validity would be supported if (a) *guan* and *jiao* were associated with indicators of *xiao* and (b) *guan* and *jiao* and *xiao* were associated with the outcome variables. As expected based on the literature on Chinese parenting (Ho, 1986; Wu, 1996), indicators of *xiao* were positively associated with both *guan* and *jiao* (except for the association between *xiao* for father and maternal *guan*). Moreover, both depressive symptoms and school misconduct were negatively correlated with *xiao* for mother, *xiao* for father, maternal *jiao*, and paternal *jiao*. Neither maternal *guan* nor paternal *guan*, however, was associated with misconduct or depressive symptoms. Taken together, criterion validity was demonstrated for the *jiao* and *xiao* variables but not for the *guan* variables.

[Table 3 Omitted]

### Mediation Analyses

## **GUAN , X IAO, AND ADOLESCENT DEPRESSIVE SYMPTOMS**

Neither maternal *guan* nor paternal *guan* was directly associated with adolescent depressive symptoms, suggesting that the first step in establishing a mediated association according to Baron and Kenny's (1986) procedure was not established and, as a result, there is not main effect for *xiao* to mediate.

## **JIAO , X IAO, AND ADOLESCENT DEPRESSIVE SYMPTOMS**

Although full mediation was not established, maternal *jiao* demonstrated significant associations with depressive symptoms that were both direct and indirect via *xiao* for mother (see Figure 2). A higher level of maternal *jiao* was associated with a higher level of *xiao* for mother ( $\beta = .56, p < .01$ ), which in turn was associated with a lower level of adolescent depressive symptoms ( $\beta = -.25, p < .05$ ). The association between maternal *jiao* and adolescent depressive symptoms remained significant ( $\beta = -.26, p < .01$ ) even with *xiao* for mother taken into account. Results of the Sobel test (Preacher & Leonardelli, 2006) indicated that the indirect effect was significantly different from zero ( $t = -2.40, p < .05$ ). Similarly, there were both direct and indirect effects from paternal *jiao* to adolescent depressive symptoms. A higher level of paternal *jiao* predicted a higher level of *xiao* for father ( $\beta = .55, p < .01$ ), which in turn predicted a lower level of adolescent depressive symptoms ( $\beta = -.23, p < .05$ ). The association between paternal *jiao* and adolescent depressive symptoms remained significant even in the presence of *xiao* for father ( $\beta = -.24, p < .05$ ). Results of the Sobel test suggested that the indirect effect was significantly different from zero ( $t = -2.20, p < .05$ ).

[Figure 2 Omitted]

## **GUAN , X IAO, AND ADOLESCENT SCHOOL MISCONDUCT**

Similar to the path predicting adolescent depressive symptoms, neither maternal *guan* nor paternal *guan* demonstrates a significant association with adolescent school misconduct. As such, mediation was not established for the path linking *guan* and adolescent school misconduct based on Baron and Kenny's (1986) criteria.

## **JIAO , X IAO, AND ADOLESCENT SCHOOL MISCONDUCT**

The association between maternal *jiao* and adolescent school misconduct was mediated by *xiao* for mother (see Figure 2) because higher levels of maternal *jiao* were associated with higher *xiao* for mother ( $\beta = .56, p < .01$ ), which was further associated with a lower level of adolescent school misconduct ( $\beta = -.24, p < .05$ ). Moreover, a previously significant association between maternal *jiao* and adolescent school misconduct was reduced to nonsignificance when *xiao* for mother was entered into the equation. Results of the Sobel test suggested that the indirect effect was significantly different from zero ( $t = -3.18, p < .01$ ). Similarly, the association between paternal *jiao* and adolescent school misconduct was fully mediated

by *xiao* for father. A higher level of paternal *jiao* predicted *xiao* for father ( $\beta = .55, p < .01$ ), which in turn predicted adolescent school misconduct ( $\beta = -.26, p < .01$ ), and the association between parental *jiao* and adolescent school misconduct was nonsignificant in the presence of *xiao* for father. Further, results of the Sobel tests provided evidence for the indirect effect ( $t = -2.23, p < .05$ ).

## DISCUSSION

Despite the literature on the importance of considering indigenous constructs when conducting research related to parental socialization of children in China (Chao, 1994; Wu, 1996), few studies on Chinese parent–child relationships in human development and related fields to date have assessed parental *guanjiao* and *xiao*. To address this gap in the literature and to lay an empirical foundation for further research using indigenous Chinese constructs, this study assessed the psychometric properties of two measures assessing *guanjiao* and *xiao* and assessed their associations with indicators of adolescent adjustment. Results suggested that *guanjiao* was best represented by two indicators. The first indicator, *guan*, primarily assessed parental monitoring and surveillance, whereas the second indicator, *jiao*, primarily assessed parental encouragement of filial piety and obedience through teaching and reasoning. Findings from mediation analyses suggested that *jiao*, but not *guan*, reduced adolescent depressive symptoms and adolescent school misconduct by eliciting the attitude of *xiao* in adolescents, which referred to feelings of filial devotion as a result of internalization of parental expectations.

### The Constructs of *Guanjiao* and *Xiao*

A major contribution of the current study was assessing dimensionality for two important indigenous constructs in research on Chinese parent–child relationships: *guanjiao* and *xiao*. Findings suggested that the overall parenting construct of *guanjiao* might be better conceptualized as having two separate components: *guan* and *jiao*. Measurement validity was supported for *jiao* and *xiao*, but there was questionable validity for the measure of *guan*. As suggested by the literature on Chinese parenting that parents' *jiao* behaviors and adolescents' *xiao* attitudes are beneficial for child development (Ho, 1986; Wu, 1996), both *jiao* and *xiao* were found to relate negatively to adolescent depressive symptoms and school misconduct. Therefore, criterion validity was supported for both *jiao* and *xiao*. In contrast, criterion validity was not supported for *guan* because it was not correlated with any of the outcome variables.

Contrary to our expectations, neither maternal *guan* nor paternal *guan* was associated with adolescent depressive symptoms or school misconduct. This finding is unexpected given that *guan* is often considered to be a key element of parenting in China that would reduce youths' involvement in misconduct at school. Two likely conclusions may result from these findings. First, it may be that *guan*'s role in promoting obedience and respect for authority is eroding as China modernizes and becomes a more open society. In contrast to evidence suggesting that

adolescents from collectivistic cultures tend to perceive parental behavioral monitoring as parental support (Bush et al., 2002; Hill, Bush, & Roosa, 2003), the participants of the present study might not benefit from mere behavioral monitoring from parents whose primary concern is how well their children do at school (Tian, 2004). Second, it is possible that the measurement strategy employed in this study failed to adequately capture the behaviors of parents that accurately assess the key elements of *guan*. The lack of significant correlations between *guan* and adolescent outcomes may be due to limited operationalization of *guan* and omitted outcome variables. Specifically, the assessment of *guan* involves only items assessing parents' supervision of school performance, whereas this construct should ideally be operationalized as parental supervision of children's daily life, of which children's school performance is only a part. Though one goal of this study was to focus on adolescent outcomes that go beyond academic achievement (because most studies of Chinese adolescents are focused on academics), the operationalization of *guan* in this study might be more relevant to outcome variables such as academic achievement or academic motivation rather than school misconduct or depressive symptoms.

It is worth noting that *jiao*, primarily indicated by items assessing parental expectations regarding obligation to parents and respect for authority, predicted *xiao* in adolescents because this latter measure includes items such as "I love my mother/father." Compared with findings from studies conducted in the United States that emphasized the importance of parental warmth (indicated by items such as "my mother tells me she loves me") in promoting positive parent-child relationship and child outcomes (e.g., Amato & Fowler, 2002), findings in the current study seem to suggest the possibility that Chinese children interpret the parenting behaviors related to *jiao* as a culturally accepted way of communicating love and support (Chao, 1994). As such, Chinese adolescents might interpret parents' *jiao* as parental love and concern and respond with greater appreciation for, respect for, and feelings of closeness with parents. Such a conclusion would support traditional Chinese views of parenting suggesting that parents who promote filial piety and respect for authority promote positive feelings for parents in early adolescents.

Taken together, although both *guan* and *jiao* are meant to exercise and assert parental authority, adolescents seem to be more ready to "listen to" their parents when parental authority is communicated through reasoning and teaching (*jiao*) instead of direct monitoring (*guan*). Rather than encompassing a broader style of Chinese parenting, *guan* and *jiao* may be better conceptualized as distinct elements of parenting with divergent influences on adolescent outcomes.

### **Mediation**

Results of mediation tests provided partial support for the hypotheses, namely, that *jiao* (but not *guan*) was linked to a decrease in adolescent depressive symptoms and school misconduct through eliciting the attitude of *xiao* in adolescents. In other words, parenting characterized by *jiao* is associated with positive child outcomes by promoting culturally valued *xiao* in

adolescents. As previously noted, *jiao* involves parents' communicating expectations in terms of respecting parental authority and following parental directions, whereas *xiao* involves children's respect, trust, and love toward parents. Their linkage to positive child outcomes provides support for the importance of a traditional mode of parent–child interaction for the current sample of Chinese parents and adolescents. Consequently, findings of the current study suggest that promoting traditional *xiao* in adolescents might be an important solution to adolescent misconduct and depressive symptoms in today's China, where developmental paths might deviate from traditional ideals as a result of globalization and modernization (Qiu, 2006). As such, a take-home message for Chinese parents is that parenting is more likely to be effective in bringing about desired child outcomes by instilling *xiao* in adolescents with more emphasis on *jiao* (teaching and reasoning) rather than *guan* (behavioral monitoring and surveillance) in daily interactions. In other words, by relying less on behavioral surveillance and thus being less traditional, parents might have a better chance of cultivating traditional filial values in children, which are shown in the present study to be associated with fewer adjustment problems.

## LIMITATIONS

Results of the current study should be interpreted with caution because of several important limitations. First, the sample size was not large in proportion to the number of items in the scales designed to assess *guanjiao* and *xiao*, which made it unfeasible for more sophisticated measurement model testing (e.g., structural equation modeling). Second, the convenience sample recruited from a single school and the relatively young age of participants limited the generalizability of the results. It might not be appropriate, for example, to generalize the results to Chinese youth in general. Third, data were collected with adolescent self-report, which might incur common method variance. It is possible that parenting reported by parents might present different patterns of correlations with outcomes reported by adolescents, compared with the results obtained by correlating adolescent-reported parenting behavior with adolescent-reported outcomes. Finally, measurements of the indigenous constructs needed to be further refined to improve validity and reliability because this only represented a first attempt to develop measurement scales for these indigenous constructs.

## CONCLUSIONS

Indigenous notions enlighten cultural research by offering a unique perspective in understanding the psychological processes of people of a particular cultural group. *Guanjiao* and *xiao* are two critical indigenous constructs in learning about parenting and child development in China. The present study provided initial evidence of construct dimensionality of *guanjiao* and *xiao*. Moreover, criterion validity for *jiao* and *xiao* was evidenced by the mediation relationships between *jiao*, *xiao*, and adolescent psychosocial adjustment outcomes. With more resources, future research could gain more insight on Chinese adolescent development with more in-depth examination of *guanjiao* and *xiao*. First, observations and interviews with Chinese people are necessary to learn more about the meaning and daily expressions of *guanjiao* and *xiao* in China

because the country is undergoing tremendous social changes. Second, additional data from multiple sites are needed to refine measurements and establish meaningful associations between variables. That is, with a larger sample size and more statistical power, validity tests can be conducted with more sophisticated techniques. For example, confirmatory factor analysis can be used to assess the validity of scales developed based on results of observations and interviews. When these refined scales are used to conduct surveys with a broader base of participants, the results will be much more meaningful for the participants and the generalizability of results will be greatly extended. Third, theoretically based models that incorporate other contextual factors besides the family, such as school and neighborhood, will present a more complete picture of the process of adolescent development.

## Notes

*Note.* listed are factor loadings obtained with varimax rotation and Cronbach's alpha for the factors. Numbers in parentheses are for the maternal scale. Bolded numbers indicate items retained to represent the column constructs. For the maternal scale, a three-factor structure would have been supported based on the eigenvalue-greater-than-1 criterion. The first factor consists of items measuring *jiao* (items 1–4); the second factor consists of items measuring monitoring of schoolwork (items 5–7); and the third factor consists of items measuring monitoring of social life (items 8–10). However, when parallel analysis was used to determine the optimal factor structure, it was suggested that a two-factor structure most efficiently captured the variance of the maternal scale. For the sake of consistency between the paternal scale and the maternal scale, items measuring monitoring of schoolwork and monitoring of social life were combined to represent maternal *guan*. Additionally, a high alpha value for the resulted scale of maternal *guan* provided support for such a combination of the items.

*Note.* listed are factor loadings and Cronbach's alpha for the scales. Numbers in parentheses are for the maternal scale.

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

## REFERENCES

1. Amato, P. R., & Fowler, F. (2002). Parenting practices, child adjustment, and family diversity. *Journal of Marriage and the Family*, 64 (3), 703 – 716.
2. Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology*, 51 (6), 1173 – 1182.
3. Bush, K. R., Peterson, G. W., Cobas, J. A., & Supple, A. J. (2002). Adolescents' perceptions of parental behaviors as predictors of adolescent self-esteem in mainland China. *Sociological Inquiry*, 72 (4), 503 – 526.

- 4.** Chao , R. K. ( 1994 ). Beyond parental control and authoritarian parenting style: Understanding Chinese parenting through the cultural notion of training. *Child Development*, 65 ( 4 ), 1111 – 1119.
- 5.** Chen , C. ( 2005, April 13 ). New relations: China's growth places strains on a family's ties; brothers with different goals split over business venture, as father feels ignored, calling the dog a 'grandson'. *Wall Street Journal*, p. A1.
- 6.** Chen , C. , Greenberger , E. , Lester , J. , Dong , Q. , & Guo , M. S. (1998). A cross-cultural study of family and peer correlates of adolescent misconduct. *Developmental Psychology*, 34(4), 770–781.
- 7.** Chen , X. , Liu , M. , & Li , D. ( 2000 ). Parental warmth, control, and indulgence and their relations to adjustment in Chinese children: A longitudinal study . *Journal of Family Psychology* , 14 ( 3 ), 401 – 419.
- 8.** Feldman , S. S. , Rosenthal , D. A. , Mont-Reynaud , R. , Leung , K. , & Lau , S. ( 1991 ). Ain't misbehavin': Adolescent values and family environments as correlates of misconduct in Australia, Hong Kong, and the United States. *Journal of Research on Adolescence* , 1 ( 2 ), 109 – 134.
- 9.** Hill , N. E. , Bush , K. R. , & Roosa , M. W. ( 2003 ). Parenting and family socialization strategies and children's mental health: Low-income Mexican-American and Euro-American mothers and children . *Child Development* , 74 ( 1 ), 189 – 204.
- 10.** Ho , D. Y. F. ( 1986 ). Chinese patterns of socialization: A critical review . In H. M. Bond (Ed.), *The psychology of Chinese people* (pp. 1 – 37 ). Hong Kong , China : Oxford University Press.
- 11.** Kim , S. Y. , & Ge , X. ( 2000 ). Parenting practices and adolescent depressive symptoms in Chinese American families . *Journal of Family Psychology* , 14 ( 3 ), 420 – 435.
- 12.** Lau , S. , & Cheung , P. C. ( 1987 ). Relations between Chinese adolescents' perception of parental control and organization and their perception of parental warmth. *Developmental Psychology* , 23 ( 5 ), 726 – 729.
- 13.** O'Connor , B. P. ( 2000 ). SPSS and SAS programs for determining the number of components using parallel analysis and Velicer's MAP test. *Behavior Research Methods, Instruments and Computers* , 32 ( 3 ), 396 – 402.
- 14.** Patil , V. H. , Singh , S. N. , Mishra , S. , & Donovan , T. ( 2008 ). Efficient theory development and factor retention criteria: A case for abandoning the “eigenvalue greater than one” criterion . *Journal of Business Research* , 61 ( 2 ), 162 – 170 .

15. Peterson , G. W. , Cobas , J. A. , Bush , K. R. , Supple , A. J. , & Wilson , S. M. ( 2005 ). Parent–youth relationships and the self-esteem of Chinese adolescents: Collectivism versus individualism . *Marriage and Family Review* , 36 ( 3/4 ), 173 – 200.
16. Preacher , K. J. , & Leonardelli , G. J. ( 2006 ). Calculations for the Sobel test . Retrieved from <http://www.psych.ku.edu/preacher/sobel/sobel.htm>
17. Qiu , R. ( 2006 ). Bioethics: A search for moral diversity . *Eastern Mediterranean Health Journal* , 12 ( Suppl. 1 ), 21 – 29.
18. Radloff , L. S. ( 1977 ). The CES-D Scale: A self-report depression scale for research in the general population . *Applied Psychological Measurement* , 1 ( 3 ), 385 – 401 .
19. Rosemont , H. , & Ames , R. T. ( 2009 ). *The Chinese classic of family reverence: A philosophical translation of the Xiaojing* . Honolulu , HI : University of Hawai'i Press.
20. Shek , D. T. L. ( 2005 ). Perceived parental control and parent–child relational qualities in Chinese adolescents in Hong Kong . *Sex Roles* , 53 ( 9/10 ), 635 – 646.
21. Shek , D. T. L. , & Chan , L. K. ( 1999 ). Hong Kong Chinese parents' perceptions of the ideal child . *Journal of Psychology* , 133 ( 3 ), 291 – 302.
22. Stewart , S. M. , Rao , N. , Bond , M. H. , McBride-Chang , C. , Fielding , R. , & Kennard , B. D. ( 1998 ). Chinese dimensions of parenting: Broadening western predictors and outcomes . *International Journal of Psychology* , 33 ( 5 ), 345 – 358.
23. Tian , X. (2004 , September 4). Survey: Generation gap widens in China. *China Daily*. Retrieved from [http://www.chinadaily.com.cn/english/doc/2004-09/04/content\\_371696.htm](http://www.chinadaily.com.cn/english/doc/2004-09/04/content_371696.htm)
24. Wu , D. Y. H. ( 1996 ). Parental control: Psychocultural interpretations of Chinese patterns of socialization . In S. Lau (Ed.), *Growing up the Chinese way: Chinese child and adolescent development* (pp. 1 – 28 ). Hong Kong , China : Chinese University Press.
25. Xi , J. , Sun , Y. , & Xiao , J. (Eds.). ( 2006 ). *Chinese youth in transition* . Burlington , VA : Ashgate.
26. Xia , Y. R. , Xie , X. , Zhou , Z. , DeFrain , J. , Meredith , W. H. , & Combs , R. ( 2004 ). Chinese adolescents' decision-making, parent–adolescent communication and relationships. *Marriage & Family Review* , 36 ( 1/2 ), 119 – 145 .
27. Xinhua News Agency . ( 2007, March 20 ). Web opens world for young, but erodes respect. *China Daily*. Retrieved from [http://www.chinadaily.com.cn/china/2007-05/20/content\\_876318.htm](http://www.chinadaily.com.cn/china/2007-05/20/content_876318.htm)

**28.** Yeh , K. H. , & Bedford , O. ( 2004 ). Filial belief and parent–child conflict. *International Journal of Psychology* , 39 ( 2 ), 132 – 144.