

RESEARCH ARTICLE

# Correlates of parental satisfaction: a study of late life family relationships in a rural county in China

Yiqing Yang\* and Ming Wen

University of Utah, Department of Sociology, 380 S 1530 E Rm 301, Salt Lake City, UT 84112-0250, USA

**Abstract:** This study aims to identify correlates of satisfaction in late life parental role, using a sample of 432 older parents (not couples) aged 60 to 79 with 1,223 adult children living in one of the least developed counties of northern China. Drawing upon the symbolic interactionism perspective and Chinese cultural emphasis on filial piety, we tested a parental satisfaction model including a set of variables capturing parental perceptions of relationship quality with *each of their grown children* (hereafter offspring), expectations of various forms of support from offspring, and evaluations of offspring's filial piety (being *filial*). Most parents in our sample were satisfied with their parental role. Logistic regression analysis indicated that getting along with offspring, offspring met parental expectations in terms of providing emotional, practical, and financial support, and offspring being filial were significantly associated with parental satisfaction, respectively, net of parent and offspring characteristics. When simultaneously examined in the full model, however, only two correlates remained significant: getting along with offspring and offspring being filial. Offspring's filial piety was associated with parental satisfaction in a dose-response manner, indicating the importance of considering multiple children in a family on parental well-being. Findings underscore the significance of parental perceptions of relationship quality with offspring and offspring's filial piety for parental satisfaction. Findings suggest that filial piety, a multifaceted concept deeply rooted in Confucianism, continues to exert a strong influence today on Chinese family relationships despite the dramatic socioeconomic and cultural transformation China has been experiencing in the past three decades.

**Keywords:** relationship quality with offspring, child-to-parent support, filial piety, filial discrepancy, multiple children, counties below poverty level

\*Correspondence to: Yiqing Yang, University of Utah, Department of Sociology, 380 S 1530 E Rm 301, Salt Lake City, UT 84112-0250, USA; Email: [yiqing.yang@utah.edu](mailto:yiqing.yang@utah.edu)

**Received:** July 12, 2016; **Accepted:** August 10, 2016; **Published Online:** September 7, 2016

**Citation:** Yang Y and Wen M. (2016). Correlates of parental satisfaction: a study of late life family relationships in a rural county in China. *International Journal of Population Studies*, vol.2(1): 53–64. <http://dx.doi.org/10.18063/IJPS.2016.01.007>.

## 1. Introduction

Parental satisfaction has been identified to be positively related to health and well-being in late life (Reczek and Zhang, 2015; Umberson, 1992). Much less is known, however, about the factors associated with parental satisfaction, which may operate differently at the various stages of the parental life course and across a variety of cultural contexts. In a review of parental satisfaction research focusing mainly on parenting young children, Goetting (1986) concluded that “very little can be stated

**Copyright:** © 2016 Yiqing Yang and Ming Wen. This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), permitting all non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

with any degree of certainty regarding satisfaction in the parental role” due largely to “the paucity of research efforts expended in this direction”. Twenty-four years after Goetting’s review, Mitchell (2010) extended this work to further explore components of midlife parental satisfaction using the parent-focal child information. She found that income satisfaction, emotional closeness to the study child, parents’ main activity (e.g., paid work, retired, or other), health, age, ethnic background, and perceptions of how children “turn out” influence midlife Canadian parents’ subjective levels of satisfaction. In light of these developments, which aspects of the parent-adult child ties account for parental satisfaction in late adulthood remain to date unstudied.

Identifying correlates of satisfaction in parental role is particularly important for older adults because intergenerational relations (and parent – adult child ties in particular) become increasingly important in old age (Bengtson, 2001). Longer life expectancy of both parents and their children is enabling parent and adult children today to share extended “linked lives,” a span of time commonly lasting as long as 50 years for the first time in human history (Umberson, 1992). Such extendedly shared lifespans make it possible for longer periods of interactions and increased exchanges of support between generations, as aging parents across the world all rely on family members taking primary responsibility to provide support and care (Angel, 2011). Indeed, empirical studies on parenting adult children have documented that the interdependent life course trajectories of parents and adult children remain an important influence on parental wellbeing across the life course (Umberson, Crosnoe, and Reczek, 2010). A better understanding of correlates of parental satisfaction in late life would help the development of evidence-based strategies to reduce parental dissatisfaction among older adults and in turn enhance their odds of experiencing healthy aging.

Similarly, little evidence is available on correlates of parental satisfaction in late life in a Chinese setting. A China-based study examining this issue is of great significance for several reasons. First, China is experiencing rapid population aging, with more than 110 million people aged 65 or older in 2010, more than 240 million in 2030, and 370 million in 2050 according to projections (United Nations, 2015). Second, family support from adult children remains a primary source of support for older adults in China (Shen and Yeatts, 2013), where social welfare and health insurance systems are quite limited and are still being developed. Third, traditionally in Chinese culture, filial piety — the virtue of respect for, taking care of, and obeying one’s parents — has shaped the expectations and behaviors of Chinese families for thousands of years as a central value of family life (Ikels, 2004). Older Chinese adults under the regulation and guidance of filial piety beliefs may have different expectations for the parental role in late life as well as for the interaction and exchange with offspring relative to their counterparts in other cultural contexts. They may thus likely be more sensitive to adult children’s non-filial behaviors compared to those living in other cultures. Yet, little attention has been paid in previous studies to the cultural context in which parental roles are experienced (Mitchell, 2010). The current study aims to address these gaps in the literature by identifying factors associated with parental satisfaction in late adulthood using a sample of 432 older Chinese parents with 1,223 grown children living in a “below poverty level” county in northern China. Taking advantage of a rich and recent data set self-collected in 2014, information from *each of the grown children* in a family (hereafter *offspring* is used to represent *each of the grown children*) are utilized when measuring variables of interest (see Section 2.3.2 for details), as research indicated that it was important to consider multiple children when examining parent-adult child relationships (e.g., Fingerma, Cheng, Birditt *et al.*, 2012).

We identified relevant variables that might explain and contribute to parental satisfaction in the context of China and formulate our hypotheses by drawing upon the symbolic interactionism perspectives and Chinese cultural emphasis on filial piety and reviewing previous studies of parenting. According to the symbolic interactionism perspective, social roles such as being a parent, a worker, or a friend, are positions or statuses in the social structure regulated by a set of normative rights and obligations, which give identity, guidance, purpose and sense of meaning to life through role involvements (Berkman, 2000; Thoits, 1983, 2011). The parental role is ranked at the top of most par-

ents' identity salience hierarchies, higher than their worker role (Thoits, 1992), accounting for a prominent source of identity. Unlike most other social roles that have specified durations and clear boundaries, the parental role never ends. It may become even more important in late life because old age is a life phase that frequently brings in negative changes in social roles (Pudrovska, 2009). Older adults, for instance, often face the loss of some salient roles (e.g., the worker role, and possibly, the spouse role) undertaken in earlier adulthood (Orth, Maes, and Schmitt, 2015).

It is the quality of experiences in social roles, however, rather than role occupancy *per se*, the number of roles, or the amount of time spent in a particular role, is more important to psychological outcomes (Barnett and Hyde, 2001; Thoits, 1992). Krause (1995; 2005) found, for example, that negative dimensions of social ties were a particular source of unhappiness and distress. Ryan and Willits (2007) further indicated that having a satisfying relationship with adult children, rather than the frequency of parent-child interactions, was significantly associated with older people's personal feelings of well-being. These findings suggest that parent-perceived quality of relationship with offspring should be associated with parental satisfaction in later life. We thus formulated:

**Hypothesis 1:** Relationship quality with offspring is positively associated with parental satisfaction.

Furthermore, parental expectations of offspring's various types of support may be related to parental satisfaction in late life in the context of China. Despite filial obligation to one's parents being a moral imperative found in almost all societies (Silverstein, Conroy, and Gans, 2012), the norms governing parental support differ between Western and Chinese cultures, with the former preferring independence and the latter valuing interdependence (Markus and Kitayama, 1991). Unlike in Western cultures where filial duty is often viewed as the practice of caring for aging parents "at times of need" (Gans and Silverstein, 2006), filial duty in the form of filial piety within Confucian culture requires offspring providing sufficient emotional, physical, and financial support to older parents (Johnson, 1983; Wang, Laidlaw, Power *et al.*, 2010) regardless of parental needs (Kim, Cheng, Zarit *et al.*, 2015). It is likely that such differential cultural norms can affect role quality by way of affecting role practices (Barnett and Hyde, 2001), given that social integration and support may be conditioned upon cultural context (Thoits, 2011). Therefore, we theorized our second hypothesis:

**Hypothesis 2a:** Offspring's emotional support is positively associated with parental satisfaction.

**Hypothesis 2b:** Offspring's practical/instrumental support is positively associated with parental satisfaction.

**Hypothesis 2c:** Offspring's financial support is positively associated with parental satisfaction.

Moreover, filial piety, as a multifaceted concept, is a much broader belief system (Li, Pang, Chen *et al.*, 2010) beyond providing emotional, practical, and financial support. It also prescribes, for instance, a set of behaviors and attitudes requires a child showing love and respect towards one's parents. In contemporary Chinese, (being) *filial* is used to indicate that a child has successfully behaved in ways consistent with the parents' cultural expectations of filial piety. Accordingly, learning to be a filial child is "the essential first step toward being socialized to be an acceptable adult member of society" (Ho, Xie, Liang *et al.*, 2012). An adult child who fails to meet the parent's expectations of filial piety thus exhibits filial discrepancy (Cheng and Chan, 2006) and is considered *unfilial* or *less than filial*. Consequently, offspring's filial discrepancy may heighten parental feelings of social stigma and make parents view their parental role as a failure — self-critical thoughts that are detri-

mental to parental wellbeing (Knoester, 2003; Milkie, Bierman, and Schieman, 2008). A study, for instance, indicated that *unfilial* offspring was a risk factor for depression among older Chinese parents (Li, Pang, Chen *et al.*, 2010). Given the significance of filial piety as an overarching family value in Chinese family and society, we formulated our last hypothesis:

**Hypothesis 3:** Offspring's filial piety is positively associated with parental satisfaction.

Briefly, the present study tests a late life parental satisfaction model in China including variables tapping relationship quality with offspring, expectation of various forms of support from offspring, and offspring's filial piety. The key purpose is to identify important correlates of parental satisfaction for older Chinese adults to provide evidence informing intervention design and policy formulation in order to promote healthy aging in China more efficiently.

## 2. Methods

### 2.1 Data

Data were collected between June and August 2014 employing face-to-face interviews with a sample of 432 older parents in Linxi County, a traditionally agricultural county located in the Inner Mongolia Autonomous Region of northern China. Linxi County is one of 592 "below poverty level" counties nationwide as measured by the average annual disposable income of its residents (Central People's Government, 2012), with 28% and 24% of its urban and rural residents living "below poverty level" as of 2012, respectively, according to the documents from the county government. Survey data collection at this level is rare.

### 2.2 Procedures

The sample were drawn from forty-five neighborhoods within seven community centers of the two subdistricts of the county seat and a township (a subdistrict is the equivalent of a township). The source of the sample was the electronic resident roster kept in the computer system of each community center that records itemized demographic information of all household members in each household within all neighborhoods under its governance. The selection criteria included residents who were 60 to 79 years old at time of survey, apparently cognitively capable of answering questions, from different households (not couples), and had at least one living child.

A convenience sample method was employed to reach participants. At each participating community center, a staff member first screened residents on the roster according to the selection criteria to make a list of eligible residents. Then the staff member contacted eligible respondents and scheduled interviews for those who were willing to take the survey. All face-to-face interviews were conducted by a team of three interviewers (none of them were community staff and all were recruited and trained by the first author) and the first author. Interviews were conducted mostly at community centers, without the presence of persons other than the respondent and the interviewer. The duration of each interview varied from one hour and a half to two hours and a half. Participants received ¥50 (\$7.60) on completion of the interview. Of the 464 eligible respondents that were contacted, 432 completed the face-to-face interview, yielding a response rate of 93%.

### 2.3 Measures

#### 2.3.1 Dependent Variable

*Parental satisfaction* is the dependent variable based on a single-item question. Before asking this question, interviewers read the following sentences to each interviewee, "Next we'll move into the *Relationship and Exchange with Children* section. Questions in this section are to ask your relation-

ship with your children.” Then the interviewers paused a second and asked, “All in all, on a scale of 1–6 with 1 being ‘*not at all satisfied*’ and 6 being ‘*extremely satisfied*,’ how satisfied are you with being a parent?” Similar one-item measurement was used in previous studies (Mitchell, 2010). Responses were highly skewed to “5 *very*” or “6 *extremely*” satisfied ( $n=280$ , 64.81%), with the rest of responses containing less satisfactory options ranging from “1 *not at all satisfied*”, “2 *not too satisfied*”, “3 *somewhat satisfied*” to “4 *fairly satisfied*”. As such, parental satisfaction is dichotomized into “*satisfied*=1 (categories 5 and 6)” and “*not satisfied*=0 (categories 1 to 4)”. Skewed distribution aside, the following two perspectives help theoretically justify the use of parental satisfaction as a binary measure: First, social desirability bias explains that people have a tendency to overreport positive feelings about their family life rather than their real sentiments. Second, from the perspective of dissonance theory (Secord and Backman, 1974), parents report high satisfaction in the parental role in spite of the presence of deleterious relationships with children because they respond to an attitude adjustment consistent with their earlier decision to have children. Dichotomizing this variable thus will help reduce the measurement error incurred by such tendencies. Moreover, ordinal logit models were fitted with the original categories of parental satisfaction maintained as sensitivity test and the results are comparable to those reported here (results available upon request).

### 2.3.2 Independent Variables

We tested five independent variables representing relationship quality with offspring, expectation of various forms of support from offspring, and evaluation of offspring’s filial piety, based on ratings by respondents of *each of their grown children*, respectively. Overall, the sample had 1,223 grown children (range 1–8, mean=2.83,  $SD=1.17$ ). About 9.26% had one child, a little more than one-third (35.19%) had two children, almost another one-third (31.02%) had three children, and the rest had four or more. For each variable, responses of the parent’s evaluation to each child were combined across multiple children and organized into three categories: 1=*all children met expectation*, 2=*at least one but not all met expectation*, and 3=*none met expectation*. *Relationship quality* was measured by a single question that asked, “Overall, how well do you and each of your children get along together at this point in your life using a 4-point scale ranging from 1 (*not at all well*) to 4 (*pretty well*)?” *Offspring’s support* was measured by asking respondents to rate to what extent each of their children’s behaviors and activities met their expectations in terms of three types of support: emotional support (“listening to your problems”), practical/instrumental support (“providing practical assistance”), and financial support (“providing financial assistance”), respectively. *Offspring’s filial piety* was assessed by a question that asked, “How *filial* is each of your children rated using a 7-point scale ranging from 1 (*not filial at all*) to 7 (*extremely filial*)?”

### 2.3.3 Parent and Offspring Characteristics as Controls

Measures of parental characteristics reflect late life variations in resources, which in turn, can create opportunities and constraints for the parent-adult child relations to influence the risk of parental satisfaction (Mitchell, 2010). Therefore, we included parental age (entered as a continuous variable), gender (1=*female*, 0=*male*), marital status (1=*married*, 0=*widowed/divorced*), financial strain (1=*yes* — family income barely took care of family needs, 0=*no*), and self-rated health as parental characteristics controls. Self-rated health was assessed using a single item asking respondents, “How do you rate your overall physical health on a 5-point scale ranging from 1 (*poor*) to 5 (*excellent*) these days?” A higher score indicated better parental health.

Research indicated that parents’ perceptions of adult children’s problems (e.g., marital or partner relationship problems and lack of career success) were associated with poorer parental well-being (Cichy, Lefkowitz, Davis *et al.*, 2013; Greenfield and Marks, 2006; Mitchell, 2010). We thus also controlled for two offspring characteristics in the analyses, which reflected older parents’ evaluations regarding how their adult children “turned out”. Offspring’s marital status was measured by asking, “How satisfied are you with each of your children’s marital status rated using a 7-point scale

ranging from 1 (*extremely dissatisfied*) to 7 (*extremely satisfied*)?” Offspring’s socioeconomic status (SES) was measured in the same manner. Like the independent variables previously mentioned, responses to each question were combined across multiple children and organized into three categories, respectively: 1=*all children met expectation*, 2=*at least one but not all met expectation*, and 3=*none met expectation*.

## 2.4 Analyses

We first calculated descriptive statistics and checked intercorrelations for measures employed. Next, we ran logistic regression models to examine the influence of the hypothesized correlates on parental satisfaction in late life, starting from relationship quality (Model 1), followed by emotional support (Model 2), practical support (Model 3), financial support (Model 4), and then offspring’s filial piety (Model 5). Parent and offspring characteristics such as age, gender, marital status, financial strain, self-rated health, offspring’s marital status, and offspring’s socioeconomic status were controlled for in each model. Model 6 represented the full model including all variables tested in previous models. The analyses were performed using Stata/MP 13.1.

## 3. Results

### 3.1 Sample Description

Table 1 presents sample descriptive statistics. The sample was composed of 432 older adults with a mean age of 66.24 years (range 60–79;  $SD=5.00$ ). The majority of the respondents were women (55.32%), married (77.08%), experiencing no financial strain (60.42%), satisfied with offspring’s marital status (67.36%), and satisfied with being a parent (64.81%). Less than half of the sample was satisfied (48.15%) with each of the grown children’s SES while near a third (27.08%) was satisfied with none of the grown children’s SES, though.

### 3.2 Correlates of Parental Satisfaction

Table 2 summarizes bivariate correlations among all variables included in the analyses. All independent variables correlated significantly to parental satisfaction in expected directions and ranged from 0.13 (practical support from offspring) to 0.32 (getting along with offspring). We assessed variance inflation factors (VIFs) for multicollinearity diagnostics. All calculated VIFs (1.08–1.50) fell well below 4.00, the suggested threshold of multicollinearity (Cohen, Cohen, West *et al.*, 2003).

Table 3 displays the results from logistic regression models. In the first five models, the five tested variables – getting along with offspring, offspring’s emotional support, offspring’s practical support, offspring’s financial support, and offspring being filial — each exhibited a statistically significant and positive association with parental satisfaction, respectively. Specifically, compared with respondents who got along with all children, respondents who got along with none of his/her children were considerably less likely to report being satisfied with the parental role (odds ratio=0.19,  $p<0.001$ ). Similarly, parents who reported being satisfied with none of his/her children’s emotional, practical, or financial support, respectively, were markedly less likely to be satisfied with their parental role relative to those who reported all their children met expectations in terms of providing for them emotional, practical, or financial support, respectively. In the fifth and the sixth model, a dose-response relation between offspring’s filial piety and parental satisfaction was revealed. Older parents who were satisfied with none of their children’s filial piety were remarkably less likely to be satisfied with their parental role compared with those who were satisfied with at least one child’s filial piety, while the latter were less likely to be satisfied with their parental role relative to those who were satisfied with all children’s filial piety. The sixth model represents the full model in which only relationship quality with offspring and offspring’s filial piety remained significant. The overall model was statistically significant ( $\chi^2 = 101.19$ ,  $p<0.001$ ).

**Table 1.** Sample descriptive statistics (N=432)

Variables	Range	M (SD)	%
Parental satisfaction (ref.= dissatisfaction)	0–1		64.81
<i>Relationship quality with offspring</i>	1–3		
All children met expectation			70.60
At least one but not all met expectation			18.98
None met expectation			10.42
<i>Emotional support from offspring</i>	1–3		
All children met expectation			69.91
At least one but not all met expectation			17.59
None met expectation			12.50
<i>Practical support from offspring</i>	1–3		
All children met expectation			59.26
At least one but not all met expectation			17.59
None met expectation			23.15
<i>Financial support from offspring</i>	1–3		
All children met expectation			72.69
At least one but not all met expectation			13.89
None met expectation			13.43
<i>Offspring's filial piety</i>	1–3		
All children met expectation			80.56
At least one but not all met expectation			14.35
None met expectation			5.09
<i>Controls</i>			
Age	60–79	66.24 (5.00)	
Female (ref.=male)	0–1		55.32
Married (ref.= widowed/divorced)	0–1		77.08
Financial strain (ref. = no)	0–1		39.59
Self-rated health <sup>a</sup>	1–5	2.31 (0.91)	
<i>Offspring's marriage</i>			
All children met expectation			67.36
At least one but not all met expectation			25.46
None met expectation			7.18
<i>Offspring's SES</i>			
All children met expectation			48.15
At least one but not all met expectation			24.77
None met expectation			27.08

<sup>a</sup> Higher scores indicate better health.

ref. = reference group.

#### 4. Discussion

This study identifies correlates of parental satisfaction in late life in a sample of 432 older parents aged 60 to 79 with 1,223 adult children from one of the least developed counties in China. Results indicated that most parents reported being satisfied with their parental roles, and we found support to our three hypotheses. Specifically, relationship quality with offspring, offspring's emotional support, offspring's practical support, offspring's financial support, and offspring's filial piety were positive correlates

**Table 2.** Bivariate correlations matrix (N=432)

	1	2	3	4	5	6	7	8	9	10	11	12	13
1	1.00												
2	0.06	1.00											
3	-0.02	-0.17***	1.00										
4	0.00	-0.20***	-0.37**	1.00									
5	-0.15**	0.00	0.10*	-0.07	1.00								
6	0.23***	0.07	-0.19**	0.09*	-0.23***	1.00							
7	0.23***	0.08	-0.05	0.09	-0.20***	0.22***	1.00						
8	0.32***	-0.11*	-0.03	0.04	-0.06	0.14**	0.26***	1.00					
9	0.23***	-0.13**	-0.01	0.10*	-0.07	0.14**	0.13**	0.38***	1.00				
10	0.13**	-0.16***	-0.02	0.01	-0.08	0.03	-0.01	0.20***	0.15**	1.00			
11	0.21***	-0.13**	-0.05	0.03	-0.13**	0.13**	0.17***	0.36***	0.51***	0.12**	1.00		
12	0.30***	-0.16***	-0.00	0.05	-0.05	0.11*	0.16***	0.50***	0.39***	0.20***	0.34***	1.00	
13	0.16***	-0.09	-0.02	-0.00	-0.04	0.07	0.19***	0.29***	0.24***	0.15**	0.23***	0.26***	1.00

\*  $P < .05$ ; \*\*  $P < .01$ ; \*\*\*  $P < .001$ ; two-tailed

Note:

1=Parental satisfaction, 2=Age, 3=Female, 4=Married, 5=Financial strain, 6=Self-rated health, 7=Offspring's SES, 8=Getting along with offspring, 9=Emotional support from offspring, 10=Practical support from offspring, 11=Financial support from offspring, 12=Offspring's filial piety, 13=Offspring's marriage.

of parental satisfaction in this sample, respectively; net of parent and offspring characteristics.

The finding regarding the association between offspring's emotional support and parental satisfaction is in line with Western research that indicated older parents' satisfaction improved when children gave emotional support (Lang and Schütze, 2002). Our findings that offspring's practical support and financial support were positively associated with parental satisfaction, respectively, are consistent with Chinese cultural emphasis on filial piety. Filial piety in Confucian culture represents "a life-long responsibility" for offspring to demonstrate their dedication and efforts to their parents' wellbeing by making parents free from worry (Kim, Cheng, Fringeman *et al.*, 2015). In contrast, filial obligation required in Western cultures is primarily need-driven as older parents expect adult children to step in to help only when they are "at times of need" (Gans and Silverstein, 2006). Previous work documented no or only weak associations between exchanges of assistance and parental well-being in some Western settings (Lowenstein, Katz, and Gur-Yaish, 2007; Umberson, 1992). This contrast may help understand our study findings of why expectation of practical and financial support from offspring plays a significant role, respectively, in deciding parental satisfaction in late life in a sample of able-bodied older Chinese parents.

Meanwhile, we found that the significant effects of parental satisfaction with offspring's emotional, practical, and financial support disappeared in the full model when examining relationship quality with offspring and offspring's filial piety simultaneously. This result indicates that child-to-parent support, in general, plays a less salient role than better relationship quality with offspring and offspring being filial among older adults who were satisfied with their parental role, suggesting specific forms of support from offspring in these dimensions may become less important even in one of the least developed counties in contemporary China. Contrary to this finding, the significant dose-response relation between offspring's filial piety and parental satisfaction detected in the current study indicates that filial piety is a multidimensional concept. Its meanings go above and beyond various forms of support and this complicated and all-embracing concept remains influential in terms of affecting older Chinese adults' wellbeing, manifesting that the parental role in late life is embedded in the cultural context in which the parent-adult child interaction and exchange occurs. These findings are consistent with the symbolic interactionism perspective underscoring role and relationship quality and the Chinese cultural norms emphasizing filial piety. In addition, the

**Table 3.** Odds ratio estimates from logistic regression of parental satisfaction (N=432)

Variables	Parental Satisfaction					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
<i>Relationship quality with offspring</i>						
All children met expectation (ref.)	1.00					1.00
At least one but not all met expectation	0.39**					0.61
None met expectation	0.19***					0.30**
<i>Emotional support from offspring</i>						
All children met expectation (ref.)		1.00				1.01
At least one but not all met expectation		0.58				0.71
None met expectation		0.31***				0.68
<i>Practical support from offspring</i>						
All children met expectation (ref.)			1.00			1.00
At least one but not all met expectation			0.77			1.03
None met expectation			0.49**			0.66
<i>Financial support from offspring</i>						
All children met expectation (ref.)				1.00		1.00
At least one but not all met expectation				0.74		1.35
None met expectation				0.35***		0.61
<i>Offspring's filial piety</i>						
All children met expectation (ref.)					1.00	1.00
At least one but not all met expectation					0.31***	0.46*
None met expectation					0.10***	0.15**
<i>Controls</i>						
Age	1.04	1.03	1.03	1.03	1.04	1.06*
Female (ref.=male)	1.25	1.15	1.27	1.26	1.18	1.21
Married (ref.= widowed/divorced)	1.02	0.89	1.03	1.00	0.95	0.92
Financial strain (ref. = no)	0.66	0.69	0.72	0.71	0.69	0.65
Self-rated health <sup>a</sup>	1.52**	1.52**	1.62***	1.57***	1.54**	1.45**
<i>Offspring's marriage</i>						
All children met expectation (ref.)	1.00	1.00	1.00	1.00	1.00	1.00
At least one but not all met expectation	0.83	0.75	0.72	0.71	0.90	0.90
None met expectation	0.44	0.45	0.34*	0.37*	0.40*	0.49
<i>Offspring's SES</i>						
All children met expectation (ref.)	1.00	1.00	1.00	1.00	1.00	1.00
At least one but not all met expectation	0.72	0.58*	0.55*	0.59	0.62	0.65
None met expectation	0.62	0.50*	0.46**	0.53*	0.54*	0.65
Overall model $\chi^2$	76.89***	64.05***	57.81***	61.76***	79.56***	101.19***
<i>df</i>	11	11	11	11	11	19

<sup>a</sup> Higher scores indicate better health. ref. = reference group.

\* $P < .05$ ; \*\* $P < .01$ ; \*\*\* $P < .001$ ; two-tailed

dose-response association of filial piety and parental satisfaction pinpoints the importance of considering the effects of all children, rather than the focal child or children as a composite, on parental wellbeing when examining parent-adult child relationships, echoing previous research that called for such investigation (Fingerman, Cheng, Birditt *et al.*, 2012).

This study has limitations that provide directions for future research. First, this study is a locally conducted small-scale study. Although our sample fit the profile of Chinese aged 60 to 79 living in townships in terms of sex and education composition according to the 2010 Census (National Bureau of Statistics, 2012, Forms 3-1b and 4-1b), future studies with nationally representative data or large-scale sample are needed to ascertain our study findings' generalizability. Future research could also explore the definition of "a filial child" among older Chinese adults to ascertain its various dimensions. Second, longitudinal analyses are warranted to provide more rigorous hypothesis testing on directionality of the associations, as components of parental satisfaction may change over time even in late adulthood, and longitudinal studies can help detect whether reciprocal effects exist. Third, we measured parental satisfaction using a single item. Research has indicated that single-item measures can be almost as effective, especially when the construct is unambiguous, as multiple items (e.g., Cheung and Lucas, 2014). For a complex rather than straightforward construct like parental satisfaction, however, multiple-item scales if constructed appropriately might be better than a single-item measure.

## 5. Conclusions

Despite the limitations, this study is the first to identify correlates of parental satisfaction in late life and in a Chinese setting. It examines a range of relationship quality, interaction and exchange with offspring variables regarding parent – adult child ties across multiple children in the context of China, along with offspring's filial piety. A particular strength of this study is the use of a rich data set recently collected from one of the least developed counties in China, which offers unusually rich information about relationship quality, interaction, and exchange with each adult child in a family. The data set provides us a rare opportunity to go beyond the commonly used parent – focal child information or aggregated measures viewing children as a composite to study parent-child relationship and exchange. The key take-home message from this study is that relationship quality and offspring's filial piety are the most essential positive factors promoting parental satisfaction among older Chinese parents in our sample whereas specific forms of support and exchange are less important. Moreover, offspring's filial piety was associated with parental satisfaction in a dose-response manner. That is, having none of the children meeting parents' filial piety expectations was more detrimental on parental satisfaction than having at least one but not all children meeting expectations. Future work using data from different regions in China and different countries is needed to further test these hypotheses.

Overall, findings of this study have implications for the development and implementation of appropriate interventions aimed to reduce parental dissatisfaction. For example, we might extend government funded family-strengthening programs aiming to enhance the quality and stability of the relationships with children (mainly focusing on parents with a young child with behavioral problems, though; e.g., Kumpfer, Pinyuchon, de Melo *et al.*, 2008) to help improve parent-adult child ties in late life. Such programs might be especially useful among older Chinese adults as getting along with all adult children apparently reduces parental dissatisfaction. Moreover, for Chinese practitioners, such educational intervention programs should pay particular attention to understanding the life histories, filial piety expectations, and values of both generations, considering that offspring's filial piety in the family can clearly enhance parental satisfaction among older Chinese parents as evidenced in this study.

## Conflict of Interest and Funding

No conflict of interest was reported by all authors.

## Acknowledgements

The data collection was supported by the University of Utah Center on Aging Pilot Grant issued to Ming Wen in 2014. We are grateful to Shujun Tian, Xia Sun, Wen Li, and Yang Yang for their valuable

assistance with data collection. We thank Michael F. Timberlake and Sonia Salari for their helpful comments on the original draft. We also thank both anonymous reviewers and the editor for their insightful comments that help improve the manuscript.

### Ethics Approval

The Institutional Review Board at the University of Utah approved the project in May 2014 (IRB: 00067618).

### Author Contributions

Yiqing Yang and Ming Wen jointly designed the survey. Yiqing Yang played a leading role in the fieldwork of data collection and cleaned the data. In this article, Yiqing Yang proposed the specific research questions, conducted the analyses, drafted the first version, and revised the manuscript. Ming Wen participated in the writing and further revision of the manuscript.

### References

- Angel R J. (2011). Civil society and eldercare in posttraditional society. In R A J Settersten and J L Angel (Eds.), *Handbook of Sociology of Aging* (pp.549–561). New York: Springer.
- Barnett R C and Hyde J S. (2001). Women, men, work, and family. *American Psychologist*, 56(10): 781–796. <http://dx.doi.org/10.1037/0003-066X.56.10.781>.
- Bengtson V L. (2001). Beyond the nuclear family: the increasing importance of multigenerational bonds. *Journal of Marriage and Family*, 63(1): 1–16. <http://dx.doi.org/10.1111/j.1741-3737.2001.00001.x>.
- Berkman L F. (2000). Social support, social networks, social cohesion and health. *Social Work in Health Care*, 31(2): 3–14. [http://dx.doi.org/10.1300/J010v31n02\\_02](http://dx.doi.org/10.1300/J010v31n02_02).
- Central People's Government of the People's Republic of China* (2012). List of 'below poverty level' counties. Retrieved on September 20, 2014 from [http://www.gov.cn/gzdt/2012-03/19/content\\_2094524.htm](http://www.gov.cn/gzdt/2012-03/19/content_2094524.htm). In Chinese.
- Cheng S T and Chan A C M. (2006). Filial piety and psychological well-being in well older Chinese. *Journals of Gerontology Series B: Psychological Sciences & Social Sciences*, 61B(5): 262–269. <http://dx.doi.org/10.1093/geronb/61.5.p262>.
- Cheung F and Lucas R E. (2014). Assessing the validity of single-time life satisfaction measures: results from three large samples. *Quality of Life Research*, 23, 2809–2818. <http://dx.doi.org/10.1007/s11136-014-0726-4>.
- Cichy K E, Lefkowitz E S, Davis E M, et al. (2013). “You are such a disappointment!”: negative emotions and parents' perceptions of adult children's lack of success. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 68(6): 893–901. <http://dx.doi.org/10.1093/geronb/gbt053>.
- Cohen J, Cohen P, West S G, et al. (2003). *Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences* (3rd ed.). Hillsdale, NJ: Erlbaum.
- Fingerman K L, Cheng Y-P, Birditt K, et al. (2012). Only as happy as the least happy child: multiple grown children's problems and successes and middle-aged parents' well-being. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 67B(2), 184–193. <http://dx.doi.org/10.1093/geronb/gbr086>.
- Gans D and Silverstein M. (2006). Norms of filial responsibility for aging parents across time and generations. *Journal of Marriage & Family*, 68(4): 961–976. <http://doi.org/10.1111/j.1741-3737.2006.00307.x>
- Goetting A. (1986). Parental satisfaction: a review of research. *Journal of Family Issues*, 7(1): 83–109. <http://dx.doi.org/10.1177/019251386007001006>.
- Greenfield E A and Marks N F. (2006). Linked lives: adult children's problems and their parents' psychological and relational well-being. *Journal of Marriage & Family*, 68(2): 442–454. <http://dx.doi.org/10.1111/j.1741-3737.2006.00263.x>.
- Ho D Y F, Xie W, Liang X, et al. (2012). Filial piety and traditional Chinese values: a study of high and mass cultures. *PsyCh Journal*, 1(1): 40–55. <http://dx.doi.org/10.1002/pchj.6>.
- Ikels C. (2004). *Filial Piety: Practice and Discourse in Contemporary East Asia*. Stanford, CA: Stanford University Press.
- Johnson K A. (1983). *Women, the Family and Peasant Revolution in China*. Chicago: The University of Chicago Press.
- Kim K, Cheng Y-P, Fringeman K L, et al. (2015). Relationships between adults and parents in Asia. In S-T Cheng, I Chi, H H Fung, et al. (Eds.), *Successful Aging* (pp.101–122). Netherlands: Springer.
- Knoester C. (2003). Transitions in young adulthood and the relationship between parent and offspring well-being.

- Social Forces*, 81(4): 1431–1457. <http://dx.doi.org/10.1353/sof.2003.0063>.
- Krause N. (1995). Negative interaction and satisfaction with social support among older adults. *Journal of Gerontology: Psychological Sciences*, 50B: 59–73. <http://dx.doi.org/10.1093/geronb/50b.2.p59>.
- Krause N. (2005). Negative interaction and heart disease in late life: exploring variations by socioeconomic status. *Journal of Aging and Health*, 17: 28–55. <http://dx.doi.org/10.1177/0898264304272782>.
- Kumpfer K L, Pinyuchon M, de Melo A T, *et al.* (2008). Cultural adaptation process for international dissemination of the strengthening families program. *Evaluation & the Health Professions*, 31(2): 226–239. <http://dx.doi.org/10.1177/0163278708315926>.
- Lang F R and Schütze Y. (2002). Adult children's supportive behaviors and older parents' subjective well-being — a developmental perspective on intergenerational relationships. *Journal of Social Issues*, 58(4): 661–680. <http://dx.doi.org/10.1111/1540-4560.00283>.
- Li N, Pang L, Chen G, *et al.* (2011). Risk factors for depression in older adults in Beijing. *Canadian Journal of Psychiatry*, 56(8): 466–473. <http://dx.doi.org/10.1177/070674371105600804>.
- Li W W, Hodgetts D, Ho E, *et al.* (2010). From early Confucian texts to aged care in China and abroad today: the evolution of filial piety and its implications. *Journal of US-China Public Administration*, 7(7): 48–59.
- Lowenstein A, Katz R and Gur-Yaish N. (2007). Reciprocity in parent–child exchange and life satisfaction among the elderly: a cross-national perspective. *Journal of Social Issues*, 63(4): 865–883. <http://dx.doi.org/10.1111/j.1540-4560.2007.00541.x>.
- Markus H R and Kitayama S. (1991). Culture and the self: implications for cognition, emotion, and motivation. *Psychological Review*, 98: 224–253. <http://dx.doi.org/10.1037/0033-295X.98.2.224>.
- Milkie M A, Bierman A and Schieman S. (2008). How adult children influence older parents' mental health: integrating stress-process and life-course perspectives. *Social Psychology Quarterly*, 71(1), 86–105. <http://dx.doi.org/10.1177/019027250807100109>.
- Mitchell B A. (2010). Happiness in midlife parental roles: a contextual mixed methods analysis. *Family Relations*, 59(3): 326–339. <http://dx.doi.org/10.1111/j.1741-3729.2010.00605.x>.
- National Bureau of Statistics (2012). *Tabulation on the 2010 Population Census of the People's Republic of China (Book I, Book II, Book III)*. Beijing: China Statistics Press.
- Orth U, Maes J and Schmitt M. (2015). Self-esteem development across the life span: a longitudinal study with a large sample from Germany. *Developmental Psychology*, 51(2): 248–259. <http://dx.doi.org/10.1037/a0038481>.
- Pudrovská T. (2009). Parenthood, stress, and mental health in late midlife and early old Age. *International Journal of Aging and Human Development*, 68(2): 127–147. <http://dx.doi.org/10.2190/AG.68.2.b>.
- Reczek C and Zhang Z. (2015). Parent–child relationships and parent psychological distress: how do social support, strain, dissatisfaction, and equity matter? *Research on Aging*, 1–25. <http://dx.doi.org/10.1177/0164027515602315>.
- Ryan A K and Willits F K. (2007). Family ties, physical health, and psychological well-being. *Journal of Aging and Health*, 19(6): 907–920. <http://dx.doi.org/10.1177/0898264307308340>.
- Secord P F and Backman C W. (1974). *Social Psychology*. New York: McGraw-Hill.
- Shen Y and Yeatts D. (2013). Social support and life satisfaction among older adults in China: family-based support versus community-based support. *International Journal of Aging and Human Development*, 77(3): 189–209. <http://dx.doi.org/10.2190/AG.77.3.b>.
- Silverstein M, Conroy S J and Gans D. (2012). Beyond solidarity, reciprocity and altruism: moral capital as a unifying concept in intergenerational support for older people. *Ageing & Society*, 32(7): 1246–1262. <http://dx.doi.org/10.1017/S0144686X1200058X>.
- Thoits P A. (1983). Multiple identities and psychological well-being: a reformulation and test of the social isolation hypothesis. *American Sociological Review*, 48(2): 174–187. <http://dx.doi.org/10.2307/2095103>.
- Thoits P A. (1992). Identity structures and psychological well-being: gender and marital status comparisons. *Social Psychology Quarterly*, 55(3): 236–256. <http://dx.doi.org/10.2307/2786794>.
- Thoits P A. (2011). Mechanisms linking social ties and support to physical and mental health. *Journal of Health and Social Behavior*, 52(2): 145–161. <http://dx.doi.org/10.1177/0022146510395592>.
- Umberson D. (1992). Relationships between adult children and their parents: psychological consequences for both generations. *Journal of Marriage and Family*, 54(3): 664–674. <http://dx.doi.org/10.2307/353252>.
- Umberson D, Crosnoe R and Reczek C. (2010). Social relationships and health behavior across the life course. *Annual Review of Sociology*, 36(1): 139–157. <http://dx.doi.org/10.1146/annurev-soc-070308-120011>.
- United Nations (2015). *World population prospects, the 2015 revision*. Retrieved on July 28, 2016 from <https://esa.un.org/unpd/wpp/DataQuery/>.
- Wang D, Laidlaw K, Power M J, *et al.* (2010). Older people's belief of filial piety in China: expectation and non-expectation. *Clinical Gerontologist: The Journal of Aging and Mental Health*, 33(1): 21–38. <http://dx.doi.org/10.1080/07317110903347771>.