

# Living arrangement and psychological well-being of elders in China

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## **Abstract**

**Objectives.** This investigation examined how the living arrangement with adult children influenced the psychological well-being of older parents in China.

**Methods.** We make use of the survey data collected through the 2010 Chinese Family Panel Studies (CFPS) in this study, and we used multiple regression in order to estimate the effects of living arrangements and mental health of the elderly in China.

**Results.** Comparing with the elderly who live with both children and spouse, the single elderly who live with children scored significantly lower on the mental health. Except for the elders who has children living in Different county in the same province or farther, the father the children live from the elderly, the lower the elderly scored on the mental health. In contrast to the elderly who live with both spouse and children, the female report much more depression symptom than the male counterparts did when they are single and living with a children. The distance of the children living from their parents affect much more in depression symptom to male elders than female elders. Besides, The elders living in the urban areas was much more affect by the distance they live from their children that their rural counterparts did.

**Discussion.** In conclusion, the findings in this study suggest that the living arrangement is associated with the mental health of the elders, specifically, it poses greater influence to male than females, and causes more depression symptoms among urban elders than their rural counterparts.

## **Introduction**

Family is highly valued in China, especially for its merit of old-age caring and supporting. Intact marriage is precious for individuals at old ages in order to maintaining a merry and healthy life (e.g., Lawton et al., 1984). Yet, for biological, social and cultural reasons, the likelihood of marital failure (via widowhood, divorce or others) ascends by age. As a result, intergenerational family support becomes more and more important for individuals' socioeconomic and psychological wellbeing at old ages. This is especially true in societies where social supporting system for the elderly is underdeveloped.

In China, living with elder parents is traditionally very common, especially when the elder parents lose their spouse or are in poor health condition. It has been proven that living arrangement has significant relevance to older people's wellbeing (Wang, 2012; Zhang, 2013; et al.). Living with adult children voluntarily promotes or protects elder parents' health significantly. However, partly for the reason of dramatic demographic transition and social evolution, the traditional living arrangement and caring pattern in China has changed subtly in recent decades (Hesketh et al. 2005). Ever since the 1970s, China has observed rapid fertility decline. As a result, the number of adult children declines rapidly and the share of elderly population increases subsequently. In addition, the ever-increasing migration of working-age population also introduces practical challenges to the traditional family living arrangement. Actually, the proportion of the elders who did not live with their children had increased significantly in 2000, and the living arrangement of the Chinese elders is the

result of three factors: the fertility rate of since 1970s, the impact of the improvement of the socioeconomic conditions on the living strategies of the Chinese people and the filial culture of China. (Zeng Yi, Wang Zhenglian, 2004).

On account of the development of the communication technology and transportation, more attention are paid to the living distance to the elder's living distance from their children. Litwak held that technological advances in communication techniques helped to maintain a high degree of contact among the family members who lived far away from each other(Litwak, 1960). Besides, there are studies that suggest that more elders preferred not to live with their children. According to a survey conducted in Beijing, Tianjin, Shanghai and Chongqing in 2005, 41.5% of the elders were not willing to live with their children, but 73.2% of them wished that they could live near their children to get attendance(LU Jie-hua A,BAI Ming-wen B & LIU Yu-zhi, 2008). Thus, living near to children may be more preferable to elders. It has been found that noncoresident sons and daughters live close to parents have frequent contact with their parents, and provide regular help to parents(Bian, Rogan & Bian, 1998). Guihua Xie also found that although the residential arrangements of the elders and living distances from their children do not affect significantly the economic support given by the children, they affect daily care and emotional support from the children. The shorter the living distance, the more daily care and emotional support given by the children(Guihua Xie, 2009). As much previous studies have documented the availability of intergenerational support of different living arrangement and living distance from their children, We are to

examine the impact of the living distance from their children on the mental health of the elders.

In this study, we use survey data from the Chinese Family Panel Studies to investigate the impact of family living arrangement on the elder parents' psychological wellbeing. The cohort differences of the correlation will be examined to throw light on the dynamics of family support and wellbeing of the elderly in contemporary China. Compared with other studies, our research contributes to the literature in the following aspects: First, we use a latest nationally representative sample survey of family, which makes it possible to extend and update our knowledge about the phenomenon under study. Second, we conduct our study separately for men and women. This will give further insights into the gender differences in the issue of pursuing a healthy and joyful late life.

## **Hypotheses**

We hypothesises that living arrangement have significant effect on the mental health of the elders. Among the different living arrangements, we expect the elders living both their spouse and children have the best mental health condition. They ought to be followed by the elders living with children(without spouse). And the farther their children lives from them, the worse their mental condition would be.

We also hypothesises that the effect of the living arrangement to the mental health of the elders varies by gender. Generally, men benefit more from marriage than women. Thus, we hypothesises that comparing to the elderly who live with both spouse

and children, the male report much more depression symptom than the female counterparts did when they are single and living with a children.

As the elders living in rural and urban areas have quite different living conditions and sociodemographic characters, we hypothesises that the associations of the living arrangement and mental health varies by regions.

## **Methods**

### ***Data and sample***

We make use of the survey data collected through the 2010 Chinese Family Panel Studies (CFPS) in this study. The CFPS is a nationally representative survey of Chinese communities, families, and individuals launched in 2010 by the Institute of Social Science Survey (ISSS) of Peking University, China. The survey is designed to collect individual-, family-, and community-level longitudinal data in contemporary China. The survey targets at the Chinese families from 25 mainland provinces<sup>1</sup> in China, which represents 94.5% of the national population in China. In total, 33,600 adult respondents from 14,799 families are surveyed successfully. In this study, we will focus on the respondents aged 60 and above in the CFPS 2010.

The survey collected rich information on the socioeconomic, physical and psychological wellbeing of the Chinese population. To the special interest of our current study, detailed measures on individuals' socioeconomic characteristics, physical and psychological wellbeing, family traits, intergenerational relation and

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<sup>1</sup> The sample area covers 25 mainland provinces, with the exception to Xinjiang, Tibet, Qinghai, Inner Mongolia, Ningxia, and Hainan. More details about the survey are available at the survey website: <http://www.iss.edu.cn/index.php?catid=7&action=index>

living arrangement, will be used in the analysis.

### *Variables and measures*

In this study, we are interested in examining the changing impact of living arrangement on the elder's psychological wellbeing in light of the demographic and social-cultural transitions in recent decades. Specifically, we aim to address the following questions: What is the relation between living arrangement and the elder's mental health today in China? Is there any cohort or generational difference in the relationship? How do other family characteristics or contextual factors, such as marital status and place of residence, mediate or affect the relationship between living arrangement and the elder's psychological well-being?

To answer these questions, we employ multivariate regression models in the analysis. The outcome variable is psychological wellbeing (DV), measured with a six-item scale indicating the frequency of experiencing various psychological conditions during the past month. All of the are the indicators of depression symptoms. By adding them together, we got a variable that ranges from 6 to 30, in which 6 represents the slightest symptom of the depression on and 30 represents the most serious condition of depression. Reverse coding was conducted thus the score represents the mental health of the elders. A higher score indicates better mental health condition after reverse coding.

The independent variable (IV) is family living arrangement of the elder. CFPS2010 provides specific information about the living locations of each child of

the respondents. We can get eight categories of the living locations of the children from their parents: Living together, Same neighborhood/Next door, Same village/street, Different village/street in the same county/district, Different district in the same city, Different county in the same province, Different province, Outside of Mainland China. We separated the category of “ Living together ” into two categories-- “ Living with children and spouse(n=1526) ” and “ Living with children(no spouse)(n=1059) ” ---to examine the role of spouse in promoting the mental health of the elders.

Given the geographic similarity of the categories and the limited number of the samples in some categories, we combined the items of “ Same neighborhood/Next door”and “Same village/street” as the third categories of living arrangement(n=979). Similarly, we merged the next two group as “ Different village/street in the same county/district or Different district in the same city” (n=709), and merged the last two groups as “Different county in the same province or Different province or Outside of Mainland China ” (n=80). Thus, the living arrangement contains five groups. When living arrangement is used as a predictor, it is treated as a set of dummy variables(with “Living with children and spouse” as a reference category ).

To control for potential confounding factors, we add the elder’ s age, the year of schooling, marital status(The variable includes Having a living spouse and Not having a living spouse. The first category includes the condition of marital cohabitation, remarriage and first-marriage ; the second category includes the condition of widowed, divorced and never married), physical health status (The variable is measured by a



scale with seven items of activities of daily living, ranged from 0 to 42. 0 represent the weakest abilities of activities of daily living, while 42 represent the opposite.), income, the number of adult children and financial supports from other sources (families and relatives) in the model. All the analyses are conducted separately for men and women, and for the rural elderly and the urban ones.

## **Results**

### ***Description of the sample***

The sociodemographic and mental health characteristics of the sample are shown in the Table 1. The number of female and male in the sample are almost the same, and the sample averaged 72.25 years old. The majority had a living spouse(71%), had education below the primary school(3.18 years) and had low income(4380) and received low financial aid from families and relatives(970). The respondents had 3.36 children on average, and most of them report good physical health conditions(3.32, range 0-42, 0 represents the best physical condition, while 42 represent the opposite), which meant that they did not need much help for their activities of daily living. On average, their mean score on the physical health is 9.45(range=6 - 30), which indicated that most of them reported some depression symptoms.

With respect to the living arrangements, the majority of the respondents who lived with both spouse and children are male, which is consistent with the prior findings that female has long life expectancy than male did, and they are more likely to experience

widowhood(Lee & DeMaris, 2007). The result also shows that most urban respondents did not live with their children. Respondents living with children but without spouse reported the worst physical health condition, which might indicate that the co-residence with their children was the consequence of the poor physical health and lack of daily caring.

### ***Associations of living arrangement and mental health***

Comparing with the elderly who live with both children and spouse , the single elderly who live with children scored significantly lower on the mental health, which support the hypotheses that living with a spouse may contribute to mental health of elders.

Except for the elders who has children living in Different county in the same province or farther, the father the children live from the elderly, the lower the elderly scored on the mental health. The result support our hypotheses that living arrangement have significant association with mental health. Besides, being male,older, longer educated, urban residences increase the risk of depression, while having more children would improve the mental health of the elders.

### ***Sex differences in the association of living arrangement and mental health***

The multiple regression models separated by gender for mental health are represented in Table 3. Comparing with the elderly who live with both spouse and children,the female report much more depression symptom than the male counterparts

did when they are single and living with a children. The distance of the children living from their parents affect much more in depression symptom to male elders than female elders. The result support our hypotheses that the association of living arrangement varies by gender. But the result is contrary to our hypotheses in that comparing to the elderly who live with both spouse and children, the female report much more depression symptom than the male counterparts did when they are single and living with a children.

### ***Differences of associations of living arrangement and mental health between urban and rural areas***

The multiple regression models separated by rural and urban areas for mental health are represented in Table 4. In consistency with In consistence with the prior hypotheses, the elders living in the urban areas was much more affect by the distance they live from their children that their rural counterparts did. Comparing with the elderly who live with both spouse and children, the rural elders report much more depression symptom than their urban counterparts did when they are single and living with a children.

### **Discussion**

Using survey data from the Chinese Family Panel Studies, we found that living arrangement has influence on the elder parents' psychological wellbeing. Elders living apart from their children reported more depression symptoms than the elders living

with their children. Living nearby their children, including living in the same neighborhood or living next door or in the same village/street also reported more depress symptoms than the respondents who live with their children and spouse. Besides, living with spouse and children contributes more to mental health than living with children but without spouse, which highlight the role of spouse in improving the mental health of the elders.

Regarding the gender differences in the associations among living arrangement and mental health, results indicate that living without spouse poses greater depression risks among women than men. Actually, in the men report more symptoms of depression than women significantly. For females, being older increase the bigger risks of depression than men did. However, men are more vulnerable to the longer distance to their children.

The association of living arrangement and mental health varies by living places. Specifically, urban elders showed more depression symptoms than their rural counterparts did when living apart from their children. The study is consistent with the prior studies in that although the traditional multigenerational family pattern was diminishing and many elders in urban China tend to live by their own or live with their spouse, the mental health still correlated with the co-residence with children significantly(Minzhi Ye & Yiwei Chen,2013).

This study has several limitations. Firstly, the more specific living arrangement of different living distances should be taken into consideration, such as the living with their grandchildren but not their children, or other non-relative members.Secondly,

many other factors may associated with the mental health of the elders besides the variables in this study.

In conclusion, the findings in this study suggest that the living arrangement is associated with the mental health of the elders, specifically, it poses greater influence to male than females, and causes more depression symptoms among urban elders than their rural counterparts.

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**Table 1 sociodemographic and health characteristics of the sample**

	Total (n=4149)	Living with children and spouse (n=1,474)	Living with children (no spouse) (n=987)	Same neighborhood/ Next door or Same village/street (n=928)	Different village/street in the same county / district or Different district in the same city (n=684)	Different county in the same province or Different province or Outside of Mainland China (n=76)
<b>Male</b> (vs. female;%)	0.52	0.62	0.31	0.55	0.55	0.59
<b>Age</b> (range 65–110; mean, SD)	72.25 (5.88)	70.66 (4.91)	75.20 (6.86)	72.09 (5.26)	71.83 (5.58)	70.24 (4.75)
<b>Having a living spouse</b> (vs. Not having a living spouse;%)	0.71	1.00	0.072	0.82	0.83	0.86
<b>Year of schooling</b> (range 0–19;mean SD)	3.18 (4.40)	3.30 (4.35)	1.55 (3.32)	2.98 (3.98)	5.38 (5.16)	4.66 (5.70)
<b>Urban residence</b> (vs. rural;%)	0.47	0.43	0.42	0.43	0.70	0.43
<b>Physical health</b> (range 0 – 42; mean, SD)	3.32 (8.27)	3.04 (7.96)	5.75 (10.55)	2.51 (7.11)	1.84 (6.07)	0.29 (1.49)
<b>Personal income /1000</b> (range 0 – 160; mean, SD)	4.38 (8.66)	4.2 (9.03)	2.58 (5.98)	4.26 (7.29)	7.24 (11.67)	5.77 (7.71)
<b>Financial aid from families and relatives / 1000</b> (0 – 140;mean, SD)	0.97 (4.25)	0.90 (4.29)	0.69 (2.75)	0.98 (2.54)	1.15 (4.37)	4.31 (16.47)
<b>No. of children</b> (range 0 – 10;mean, SD)	3.36 (1.58)	3.26 (1.54)	3.43 (1.74)	3.75 (1.51)	3.02 (1.42)	2.5 (1.28)
<b>Mental health</b> (range 6–30;mean, SD )	9.45 (4.41)	9.61 (4.56)	10.13 (4.80)	9.27 (4.23)	8.44 (3.52)	8.78 (3.68)

**Table 2 Associations of living arrangement and mental health**

	Model 1	Model 2
Male	-0.584*** (0.137)	-0.611*** (0.137)
Age	-0.0452*** (0.0121)	-0.0420*** (0.0121)
Marriage status	-0.253 (0.152)	-0.630** (0.232)
Year of schooling	-0.0964*** (0.0166)	-0.0920*** (0.0168)
Urban	-1.168*** (0.138)	-1.154*** (0.139)
Physical health	0.152*** (0.00802)	0.151*** (0.00805)
Personal income	-0.0176* (0.00790)	-0.0172* (0.00792)
Financial aid from families and relatives	0.0148 (0.0151)	0.0148 (0.0152)
No.of children	0.145*** (0.0416)	0.151*** (0.0420)
Living arrangement 2		-0.680* (0.270)
Living arrangement 3		-0.442* (0.177)
Living arrangement 4		-0.494* (0.198)
Living arrangement 5		-0.310 (0.484)
Constant	13.13*** (0.892)	13.48*** (0.905)
Observations	4,149	4,149
R-squared	0.151	0.153

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05

Living arrangement is a variable of five categories. "Living arrangement 1" refers to "Living with children and spouse"; "Living arrangement 2" refers to "Living with children(no spouse)"; "Living arrangement 3" refers to "Same neighborhood/Next door or Same village/street"; "Living arrangement 4" refers to "Different village/street in the same county/district or Different district in the same city"; "Living arrangement 5" refers to "Different county in the same province or Different province or Outside of Mainland China".



**Table 3 Sex differences in the association of living arrangement and mental health**

	Male	Female
Age	-0.0312 (0.0161)	-0.0567** (0.0182)
Marriage status	-0.0515 (0.328)	-1.034** (0.335)
Year of schooling	-0.0922*** (0.0196)	-0.0969** (0.0296)
Urban	-1.158*** (0.180)	-1.187*** (0.214)
Physical health	0.118*** (0.0112)	0.177*** (0.0116)
Personal income	-0.0212* (0.00853)	-0.00994 (0.0169)
Financial aid from families and relatives	0.0157 (0.0155)	0.00944 (0.0384)
No.of children	0.143* (0.0564)	0.152* (0.0626)
Living arrangement 2	-0.408 (0.377)	-0.833* (0.400)
Living arrangement 3	-0.574** (0.215)	-0.262 (0.293)
Living arrangement 4	-0.522* (0.240)	-0.471 (0.329)
Living arrangement 5	-1.080 (0.581)	0.771 (0.814)
Constant	11.76*** (1.207)	14.68*** (1.373)
Observations	2,143	2,006
R-squared	0.129	0.156

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05

Living arrangement is a variable of five categories. "Living arrangement 1" refers to "Living with children and spouse"; "Living arrangement 2" refers to "Living with children(no spouse)"; "Living arrangement 3" refers to "Same neighborhood/Next door or Same village/street"; "Living arrangement 4" refers to "Different village/street in the same county/district or Different district in the same city"; "Living arrangement 5" refers to "Different county in the same province or Different province or Outside of Mainland China".

**Table 4 Differences of associations of living arrangement and mental health between urban and rural areas**

	Urban	Rural
Male	-0.619*** (0.175)	-0.571** (0.210)
Age	-0.0423** (0.0151)	-0.0445* (0.0187)
Marriage status	-0.889** (0.285)	-0.306 (0.366)
Year of schooling	-0.0839*** (0.0182)	-0.104** (0.0322)
Physical health	0.118*** (0.0109)	0.172*** (0.0116)
Personal income	-0.00488 (0.00777)	-0.0674*** (0.0196)
Financial aid from families and relatives	0.0206 (0.0175)	0.0264 (0.0264)
No.of children	0.242*** (0.0561)	0.0891 (0.0613)
Living arrangement 2	-0.857* (0.345)	-0.450 (0.410)
Living arrangement 3	-0.529* (0.233)	-0.268 (0.260)
Living arrangement 4	-0.586** (0.225)	-0.368 (0.353)
Living arrangement 5	0.0171 (0.650)	-0.561 (0.702)
Constant	12.30*** (1.149)	13.59*** (1.401)
Observations	1,956	2,193
R-squared	0.120	0.126

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05

Living arrangement is a variable of five categories. "Living arrangement 1" refers to "Living with children and spouse"; "Living arrangement 2" refers to "Living with children(no spouse)"; "Living arrangement 3 " refers to "Same neighborhood/Next door or Same village/street"; "Living arrangement 4" refers to "Different village/street in the same county/district or Different district in the same city"; "Living arrangement 5" refers to "Different county in the same province or Different province or Outside of Mainland China".