**Intergenerational Transfers and Informal Care for Disabled Elderly Persons in China: Evidence from CHARLS**

# Abstract

Aiming at “ageing healthier and ageing better”, a certain amount of high-quality informal care should be available for elderly persons with physical disability as formal care is barely accessible in China. The demographic transition and family structural changes have dramatically weakened traditional norms of filial piety and the structure of intergenerational transfers. This article employed nationwide representative data from the first wave (2011) of Chinese Health and Retirement Longitudinal Study (CHARLS) in order to identify the duration of informal care provision at home for frail elders (1,122 in rural areas and 577 in urban areas, totally 1,699), measured in monthly hours, before estimating the associations between intergenerational transfers and the received time of informal care with Tobit Model analysis. Results showed that financial support from the younger generation was unexpectedly negatively associated with the monthly hours of care, implying a reduction of caring support along with increasing financial transfers towards older parents. The lack of informal care could not be compensated by having more children, co-residing with children, or increasing the parent-to-child/grandchild transfers. Spouses were shown to replace children as the major caregivers. In addition, the community-based long-term care system needs to be promoted to sustain and develop informal care, as the latter will become increasingly important with changing family dynamics. Finally, the received time of informal care, rather than the severity of physical disability measured by difficulty with ADLs or IADLs, was introduced to identify the actual demand for care by elders. The paper argues that it is important to reconceptualise and re-investigate the duration of care provision in the Chinese context in order to develop standards of payment as part of long-term care policies.

# Keywords

Informal care; Intergenerational transfer; CHARLS; Disabled elderly persons; China

# Bullet points

*What is known about this topic:*

1. Parents provided financial support more often to children who had provided them with informal care;

2. Increasing financial transfers from children to frail parents led to a reduction of informal care provision by children;

3. More children has not always meant more financial support

*What this paper adds:*

1. Increasing financial transfers from children to frail parents were negatively associated with the monthly hours of care provision by children;

2. having more children, co-residing with children or increasing financial transfers to children were not associated with lack of informal care.

3. Adopting a family oriented perspective to support disabled elderly who need informal care could be better than emphasising on filial piety.

# Introduction

China’s demographic transition and family structural shift are two major challenges in addressing the problem of aged care. The number of partially and completely disabled older people was estimated to reach 40 million in 2015. A large proportion of older adults with functional disability or chronic health problems creates enormous challenges for the immature long-term care (LTC) system in China, as more than 60% of this group are dependent on others for help (Research Group of China Research Centre on Ageing 2011). Additionally, the average duration of disability for elderly persons is longer as a result of improved longevity (Du & Li 2006). Simultaneously, China’s demands for aged care are increasing alongside a family structural transition, as the categories of nuclear family, empty nest family, and vulnerable elders who have lost their only child have emerged. In addition, due to the one-child policy and geographical mobility, there is a weakened traditional function of informal care informal careprovided by family members and their networks (Ku *et al.* 2013).

The Chinese government has built up a LTC system composed of institutional care and home-and-community-based care during the past decade. However, it is difficult for older people to access institutional care due to constraints on public sector spending, and scarce institutions and facilities in the formal sector, such as nursing homes, geriatric rehabilitation centres and hospice care institutions (Keating *et al*. 2003; Yin & Du 2012). According to the Ministry of Civil Affairs, only 1.5% of older people live in nursing homes (Chu & Chi 2008). Unfortunately, although the provision of formal aged care in the community has been initiated in recent years, it is still short of high-quality medical, nursing and rehabilitative services, and professional LTC workers (Wu & Xu 2007).

## *The significance and challenges of informal care for elderly persons in China*

As the provision of formal care is inadequate, informal care offered by families is still a matter of widespread concern (Lee 2004). 11.3% of elderly persons living in urban areas and 12.5% of older people in rural areas would like to live in a nursing home in their later life, while the great majority of older people still mainly rely on their children and relatives for care at home (Wu & Guo 2014). Only elderly people with serious functional limitations and a lack of accessibility to informal caregivers tend to replace informal care with formal care, which is used when the frail elders’ needs exceed the capacity of informal caregivers (Davey *et al*. 2005). The demand for informal care from one’s family is increasing steadily (Ding 2011), especially from adult children, against the background of a Chinese culture which emphasises traditional filial piety and mutigenerational family solidarity.

Simultaneously, with changing family structures in the modern societies, there is increasing concern that informal care by children towards older people cannot be guaranteed (Ng *et al.* 2002; Cheung & Kwan 2009). Firstly, influenced by the one-child policy, the role of family support for elderly persons may be weakened due to a shrinking of the average family size. The family size and number of generations have rapidly decreased to an average of 3.09 persons and 1.85 generations in a typical family in 2010 (Sun 2013). Having fewer children in the household could result in a reduced availability of carers and could adversely contribute to the decay of the tradition of children taking care of their older parents.

Secondly, as manifested in trends of urbanization and industrialisation, adult children from rural areas or less developed areas tend to work in urban regions or more developed areas, and this is especially reflected in the case of the increasing participation of women in the labour force (Zhan 2004; Cheng & Chan 2006). Although the norms of filial piety may continue to impact significantly on the provision of care towards aged persons, informal care in practice could be eroded due to the mobility and lack of availability of adult children (Zhan & Montgomery 2003; Wang 2004). As a result, children’s obligations to their parents changed from providing both financial and instrumental supports to offering either, which might require a reallocation of supporting resources among family members and a reconceptualization of intergenerational transfers within the family sphere.

## *A linkage between intergenerational transfers and informal care*

In traditional China, elderly persons expect to rely on their adult children as vital sources of both financial and instrumental support when they become disabled or frail (Zimmer 2005; Chappell & Kusch 2007). However, intergenerational relationships are undergoing a dramatic change, and certain scholars have expressed concerns about the erosion of instrumental assistance and the simultaneous increase in financial support provided by children (Lam 2006; Zuo *et al.* 2011). On the other hand, older adults may have lower filial expectations of receiving instrumental support from younger generations (Yue & Ng 1999; Zhan 2004), especially when the absence of co-residence renders care delivery towards older parents more challenging (Silverstein *et al.* 2006). Another reason is the rising employment participation rate, as an earlier study found that the employment status of the caregiver was related to the amount of time spent providing personal care (Zhan & Montgomery 2003). Economic reforms and labour-related migration have both improved the economic status of children, enhancing their capacity of offering more financial help to their parents, as the children’s disposable resources have increased (Zhang *et al.* 2007). The level of the national pension for non-working residents is quite limited (70 Yuan or 11 US dollars per month in 2015). As a result, informal transfers are necessary to provide additional subsidies to elderly individuals due to inadequate public transfers.

Despite many studies having examined financial and instrumental support as two parallel dimensions of social support exchanged between different generations, little is known specifically about the relationship between intergenerational transfers of money and time in the dynamic context of China. As the provision of instrumental support from children diminishes, could increasing financial transfers replace the children’s commitments to take care of their parents? And to what extent are intergenerational transfers of money an essential element of informal care received by disabled elderly people?

Theoretically, we have two competing models to interpret the relationship between intergenerational transfers of money and time in this paper. The first is the exchange model, which argues that contributors to transfer might expect to receive some resources back in the future, either as *inter vivos* transfers or in the form of bequests (McGarry 1999; Wu & Li 2014). The financial transfers from adult children are in the form of money or care which they have purchased for their parents. Whether elderly individuals can receive support from their children depends on whether they can contribute other kinds of resources to the younger generation in return (Sun 2002), such as providing childcare for their grandchildren, which might be termed an ‘exchange-for-service’. Nevertheless, the physical health of elders affects the caregiving behaviour, while declines in physical functions may impede older people’s capability to care for their grandchildren (Hayslip *et al.* 2014). Thus, this model hypothesises a lower transfer from children to disabled elderly people, as a consequence of older people not being in a position to provide care of grandchildren or other services to their children. However, under this principle of reciprocity, older parents also provide financial support more often to children who had provided them with informal care in the past. A study in European countries found that among children who had provided informal care to a frail parent, the chances of receiving financial transfers from their parent were more than double compared to their siblings who had provided no care to their parent (Leopold & Raab 2013). To this extent, intergenerational transfers can operate in both directions.

The alternative model is the corporate group (mutual aid) model, under which money and time are allocated within the whole family networks in order to achieve an optimal distribution of resources (Becker 1991; Lee *et al.* 1994). This model suggests an expected division of support among siblings according to the proximity and gender of the children, as well as adult children’s economic status. The children who are living together with, or are geographically close to, their parents, are more likely to provide informal care, while the children who are not living together with their parents are more likely to provide financial resources (Yan *et al.* 2003). Zhang’s (2012) study suggested that the out-migrant children preferred to increase financial support in order to ensure that their parents receive informal support from their other siblings. Under the corporate model, the number of children is a key predictor of informal care provision, as having more children might increase the probability of older people receiving informal care (Guo & Zhang 1996). Yet other researchers have noted that having more children has not always meant more financial support overall as each child in a large family will simply contribute a smaller amount (Gui & Ni 1995; Xia & Ma 1995).

## *Objectives*

For the empirical analysis in this paper, it is important to consider the intensity of time transfers towards frail elderly persons when informal care was provided. In previous literature, the demand for informal care was usually identified by an older person’s difficulty with Activities of Daily Living (ADLs) or Instrumental Activities of Daily Living (IADLs); however, very few empirical studies conducted in China have explored the intensity of informal care received by frail older adults. Additionally, the majority of past research efforts have been primarily restricted to describing the characteristics of time spent on informal caregiving in China with little attention placed on identifying the factors influencing them (Guo & Zhang 1996; Li *et al.* 2013). This research aims to fill this gap through focusing on the association between intergenerational transfers and the time spent on informal care provided to disabled elderly persons.

The evidence of the effects of intergenerational transfers on the actual caregiving duration is insufficient to evaluate the change of parent-child relations in an ageing society, which is meaningful to policymakers adopting a family oriented policy perspective. The departing premise of this study is that caregiving resources may be reallocated within the family between diversified informal care providers, and intergenerational transfers from and to younger generations are dependent on the demand for informal care. By considering the special cultural meaning of intergenerational relations in China, we propose that a higher level of financial transfers from and to children will result in more hours of informal care received by their parents. This article will firstly unveil the patterns of monthly hours, before identifying the impact of intergenerational transfers in both directions after controlling for intensity of providing informal care. Finally, policy recommendations will be discussed.

# Methods

## *Data and sampling*

The data comes from the nationally representative baseline survey of the China Health and Retirement Longitudinal Study (CHARLS) collected in 2011-12. This survey covered the household dwelling population, and excluded elderly persons living in institutions. A multi-stage stratified sampling strategy with Probability Proportional to Size was adopted to recruit eligible respondents aged 45 and over and their spouses. This survey included 17,708 middle-aged and older adults from 10,287 households in 450 villages/urban communities and 150 counties/districts within 28 provinces. In each sampled household, a randomly selected age-eligible member became the main respondent, and his/ her spouse was also interviewed. All stages of the sampling were conducted by computer to avoid human manipulation (Zhao *et al.* 2014). The response rate was 80.5%. In this research, 1,699 people aged 60 years and over and reporting difficulty with at least one ADL or IADL item were selected, who we understand to experience some level of disability. This study is exempt from ethics approval since it is an analysis of secondary data, and the participants provided informed consent when they agreed to take part in the CHARLS survey (CHARLS, 2011).

## *Measures*

The disabled respondents were asked about their *primary caregiver*, including their spouse, mother, father, mother-in-law, father-in-law, children, sibling, sibling of spouse, brother-in-law, spouse of child, grandchild, other relative, paid helper (such as a nanny), volunteer or employee of facility, and other. Respondents chose up to three persons who most often helped them. Next, the respondents were asked about the duration of the informal care they received from these caregivers, which was measured by two questions: (a) “During the last month, how many days did the caregiver(s) help you?” and (b) “On the days when you received care, how many hours per day of care did you receive?” Consequently, the monthly hours of informal care that elderly persons received were coded by multiplying the above two variables.

We grouped predictors into four categories: intergenerational transfers (providing and receiving), older people’s living arrangements, physical functions, and socio-demographic characteristics. We reconceptualised *intergenerational transfers* to reflect two directions of flow: from the younger generation (children and grandchildren) to elderly parent(s), and from parent(s) to their children and grandchildren. The components of intergenerational transfers were operationalised by two dimensions, including regular transfers (regular monetary support and regular in-kind support, e.g. money or in-kind support every month/ quarter/ half year/ year, at a fixed time), and non-regular transfers (non-regular monetary support and non-regular in-kind support, e.g. money or in-kind support at Spring Festival or/ and Mid-Autumn Festival or/and birthday or/and wedding or/and funeral or/and others). The total amount of children/grandchildren-to-parents transfers and parents-to-children/grandchildren transfers were added up distinguishing between regular and non-regular transfers. This study only measured intergenerational transfers between older parents and their non-coresident children and grandchildren, excluding the money and in-kind support from and towards the younger generation who were living together with them.

Secondly, the older parents’ *living arrangements* were measured by two dichotomous variables distinguishing between living together with one’s spouse or with their children. Next, physical function was operationalised by self-reported difficulty with ADLs (dressing, bathing, eating, getting into or out of bed, using the toilet, controlling urination and defecation), which produced a six-item scale; and IADLs (cleaning, cooking, shopping, financial management, and taking medications) which produced a five-item scale. Respondents reported the level of difficulty with performing each task: 1 (do not have any difficulty), 2 (have difficulty but can still do it), 3 (have difficulty and need help), or 4 (cannot do it at all). The summed scale had a high reliability coefficient (0.91). As a result, the ADLs and IADLs scores were used to reflect the degree of disability among older people.

*Age, Gender*, *Education attainment* are key socio-demographic characteristics introduced as control variables in order to arrive at the independent effect of intergenerational transfers on the informal care received by frail elderly persons. *Self-perceived standard of living* was used to indicate the respondents’ social-economic status. Finally, *the number of children* was accumulated by the number of children currently alive, both living with and not living with their elderly parents.

## *Statistical methods*

The fact that informal care is not available for many disabled elderly people, and there was a zero value of time in some cases, breaks the parametric assumption of random error in a normal distribution. Consequently, the use of Ordinary Least Squares (OLS) multiple linear regression may lead to biased estimates. Therefore, a *Tobit model* was introduced to predict the time of informal care received by aged people with a disability. Tobit model allow the dependent variable to be censored on the left (as in this instance with zero hours of informal care) and/or right (for example, if there is a constrained upper limit that is commonly achieved). They make the assumption that there is an underlying uncensored latent variable that acts as the dependent variable in what otherwise looks like OLS regression. Stata 13.0 was employed to analyse the data.

# Results

## *Descriptive analysis*

Table 1 presents the descriptive information on the sample. There were 577 residents with ADLs or IADLs disability living in urban areas (34.0%) and 1,122 elderly persons (66.0%) in rural areas. The average age was 71.2 years old. The severity of functional disability was slightly worse for women than men. Education attainment was lower among disabled elderly persons in rural areas, where the illiteracy rate was 60.2% compared to 43.5% among urban older people, and only 7.0% had completed middle school or higher education in the rural areas, compared to 18.1% in the urban sample.In terms of self-reported living standard, 50.7% of disabled older people living in rural areas reported a poor standard, which was 3.5% points higher than in the urban sample. On average each aged person had 3.6 children (rural: 3.7; urban: 3.5). Living arrangements was a vital factor affecting the access of disabled persons to informal care provision (Lei *et al.* 2011; Nyirenda *et al.* 2015). The majority of older adults were married and co-resident with their spouse. In addition, 47.5% of disabled older people were living together with children, which was 65.6% in the rural sample, higher than in urban areas (34.4%).

As the descriptive analysis pointed out, 57.5% of disabled persons received financial transfers from younger generation. The group mean of financial transfers provided by the younger generation to disabled older people was 1608.76 Yuan. The amount of child-to-parent transfers in rural areas was 1408.15 Yuan, compared to 2006.54 Yuan for their urban counterparts. Simultaneously, the average amount of financial transfers from elderly persons to the younger generation was 591.08 Yuan, which was lower than that received from the younger generation.

<Insert Table 1 about here>

It suggested that 55.2% of elderly persons with a disability only had difficulties in completing IADLs, while 44.8% had some difficulties with performing ADLs. As indicated in Figures 1 and 2, the monthly hours of informal care ascended gradually in line with the severity of functional disability regardless of who provided care. Different caregivers obviously enhanced the intensity of time transfer when elderly persons reported difficulty with three or more ADLs or IADLs items. With the shrinking of the family size and the lack of family availability, one’s spouse became the primary caregiver for frail older people rather than children, with children occupying the second position. In terms of the association between the number of children, the receipt of monthly hours for care and the children-parent transfers, Figure 3 shows the monthly hours of informal care increase dramatically if the number of children increases from zero to one both for rural and urban older residents. The duration grows as the number of children increases from one to three in urban samples, while it decreases in rural samples, since a great proportion of older parents has one to three children. Simultaneously, the intergenerational transfers from adult children to disabled parents in urban areas rise along with the number of children increasing, while a similar trend for rural residents only exists when the number increases from one child to four children.

<Insert Figure 1 about here>

<Insert Figure 2 about here>

<Insert Figure 3 about here>

## *Results of Tobit model analysis*

The marginal effects of the independent variables in the Tobit Model predict the monthly hours of informal care for aged people with disability as shown in Table 2. The coefficients were estimated to reflect the effects of predictors on a latent outcome variable with monthly hours of informal care greater than zero. The results demonstrated a significantly negative relationship between financial transfer from younger generation and the duration of informal care for disabled older people, as when the log form of financial transfer increases by one unit, the monthly duration of informal care reduced by 2.85 hours. However, the financial transfers from parents to children/ grandchildren did not demonstrate a statistically significant effect on informal care in the model. These findings emphasised that giving money to parents was a negative factor in terms of parents receiving informal care from family members, despite the probability of receiving informal care from family depending on the demand rather than financial transfers.

<Insert Table 2 about here>

The results also showed a significant difference of receiving informal care between rural and urban residents in that disabled older persons in urban areas were more likely to obtain many more hours of care at home than their counterparts in rural areas. In addition, we found that elderly people who were older, co-resident with spouses, with higher levels of difficulty with ADLs and IADLs had a significantly higher probability of receiving more hours of informal care than those who were younger, not co-resident with their spouses, and with lower scores of difficulty with ADLs and IADLs. At the same time, there was no significant association between gender, educational attainment and self-reported living standard on the one hand, with the time of informal care received by older people on the other hand. Unexpectedly, the number of children was not a significant predictor for the duration of informal care received by older people. This finding rejected the hypothesis that more children resulted in a higher probability of receiving informal care on the basis of filial piety. In addition, co-residence with children was also not a significant predictor for the receipt of more hours of care per month.

# Discussion

## *More financial transfers from children but less informal care*

In contemporary China, the traditional culture of children providing informal care is to some extent questioned as the findings presented above compel us to rethink whether higher financial transitions from the younger generation are better for older adults. The relationship between intergenerational transfers and the duration of informal care received by older people should be explored as there may be a trade-off relationship with one aspect waning as the other waxes. Several reasons are introduced to interpret the negative association between financial support from offspring and the duration of informal care.

At first, a higher level of labour participation helps to raise the likelihood of financial support provided by adult children to their parents (Zhang 2001; Wang & Li 2011). Some other macro-level factors may impact on the amount of money transferred, among which the most important variables are the accelerated migration, especially in rural areas. As Zhang *et al.* (2007) pointed out, rural children provide greater financial support to their parents if they are working in cities. In rural China, financial support for elderly people remains the responsibility of adult children due to a lack of adequate social security benefits (Wu & Li 2014).

Secondly, as financial transfers improve through labour participation, migration and living arrangement changes, instrumental support provided by children is replaced by the contribution of other members of elderly people’s support networks, including their spouse, other relatives, neighbours, friends, volunteers and paid helpers. One’s spouse plays a vital role in the provision of informal care, particularly for male and younger aged groups. However, caring support provided by children has been weakened, adding to the challenge of informal care provision for spouses, and indicating a growing demand for supplementary community support. That is also the reason why co-residence with one’s spouse is a strong predictor of informal care. Unexpectedly, the analysis demonstrated that disabled aged people are less likely to receive informal care even if they live together with their children. In contrast, previous findings from the literature demonstrate that residing in multigenerational households is positively associated with grandchildren being cared for by older grandparents (Silverstein *et al.* 2006). This supports the exchange theory in that co-residence with adult children is favourable for childcare provided by grandparents rather than care towards older people.

## *More children but no more informal care*

It is evident and consistent with existing literature that the number of children does not significantly affect the duration of informal care provided to elderly people, contrasting with the belief in the Chinese traditional culture that ‘more children mean more happiness’ (Chou 2010; Ci & Ning 2013). As noted in Figure 3, as the number of children increases from zero to one, the monthly hours of informal care increase dramatically both for rural and urban older residents; while for the number of children increases from one to three, the duration grows as the number of children increases in urban areas, but it decreases in rural areas. Simultaneously, the intergenerational transfers from adult children to disabled parents in urban areas rise along with the number of children increasing, while a similar trend for rural residents only exists when the number increases from one child to four children. These findings reflect the weaker role of filial piety of providing informal care in rural areas, irrespective of the increase in financial transfers. Based on these findings, enhancing the fertility rate would not be helpful for elderly persons with disability in terms of obtaining more informal care.

## *The longer duration of informal care in the China*

The importance of the Chinese culture as part of the broader system of informal care provision and receipt is an area which required further attention in academic research. Liu *et al.* (2000)’s study indicated that the demand for informal care had closer ties with functional disability with nearly 75% of disabled elderly persons at home receiving informal care on average for 21.6 hours per week, with up to 60 hours per week received when difficulty with five items of ADLs is reported by disabled seniors, and more than 12 hours per week received by elders with only IADLs limitations. However, departing from our understanding of physical functions in statistical analyses, Chinese seniors have a different definition of ‘care’, treating the concepts of ‘care’ and ‘co-residence’ equally. That could explain why the monthly hours of care are longer compared with Western countries. In a recent national survey conducted in the United States, the estimates of time spent providing informal care ranged from 13.3 hours per week for frail elderly persons to 31.8 hours per week for cancer patients, and 29.9 hours per week for individuals with dementia (Yabroff & Kim 2009). Another study conducted by Li *et al.* (2013) demonstrated that the average time of informal care was 378 hours per month. As a result, the negative impact of financial transfers on the duration of informal care should be interpreted cautiously as the monthly hours might be overstated because of a traditional culture of perceiving co-residence as receiving informal care. The caring duration varies due to different sampling approaches, which calls for a standard questionnaire for exploring related issues of measurement.

## *Limitations*

The research findings from this article should be interpreted cautiously since there are some limitations. The data used in this study come from a cross-sectional baseline survey rather than a longitudinal survey, so that causal relations are not explored. Furthermore, the fact that we could not identify who contributes to the time of informal care provided by a particular caregiver, children, spouse or other relatives, restrained the exploration of the theories of intergenerational relationships. In addition, the time measures used here are self-reported. There may have been some reporting bias; older people who are living together with family members may overstate the time of receiving care. Some characteristics of children are crucial in terms of their capacity to provide financial support (e.g. occupation), however such data have not been included in this analysis. This paper could not study the financial cost of informal care provision owing to the lack of related data, which is as important as time to determine the demand for LTC, and to interpret the flow of intergenerational transfers. In spite of these limitations, this research makes a unique contribution to the limited knowledge of the association between intergenerational transfers and the duration of informal care for frail elderly persons in modern China.

# Policy implications

This study contributes to our understanding of the received informal care identified by the monthly hours for frail elderly persons and associated with the intergenerational transfers using a nationally representative dataset. According to the trends of decreasing informal care provided by family members with increasing financial support from children and grandchildren, social policy and social services should be initiated to support households with disabled older persons. In some wealthier provinces of China, vulnerable elderly people with seriously physical disabilities and low income are entitled to Aged Care Service Subsidies (e.g. 3% of the total older population in Zhejiang province received this kind of subsidy), the standard of which was 7,500 Yuan per year for home care and 15,000 Yuan for institutional care in 2013 (Yang 2013). This amount is paid per head rather than hours of care, which could be reformed using a scientific need assessment and amended to relate to the time of providing the specific services, as is the case with LTC insurance in Japan, Germany and Taiwan.

Among numerous factors associated with informal care, financial transfers from younger generation are still a pivotal variable interpreted by an intergenerational bidirectional care model. It seems that financial support replaces the responsibility for care towards aged people in some ways, which falsified our primary hypothesis, drawing attention to a redistribution of financial and informal care resources within social networks. In some ways, financial support takes the place of instrumental support by children towards elderly people, resulting in a challenge to the informal care system, particularly for senior residents in rural areas, who are likely to be vulnerable when disabled. Importantly, as a significant informal care provider, spouses should be protected better by the intervention of social policies. Compared with other regions and considering China’s unique culture, children could not replace one’s spouse as the major informal caregiver until older adults are over 80 years old. The lack of informal care could not be compensated for by having more children or co-residing with one’s children. Unlike what previous literature pointed out, the vulnerability and uncertainty of family development suggested by the one-child policy being ended soon (Sun 2013), suggests a need to emphasise informal care rather than financial transfers, the responsibility for which should be shared among integrated family networks. Family-centred policies could also be developed to support caregivers, such as training and respite service.

In the other direction of intergenerational transfers, even if disabled seniors provide much more money to their children, such transfers do not equate with more time of informal care receipt. Consequently, a focus on community LTC could do much to inform social policies that seek to promote and sustain informal care. Currently, the community-based LTC system in China is fragmented, leading to care that can be inefficient, ineffective, and not person-centred. As such, communities should be encouraged to develop appropriate financing and a comprehensive high-quality service delivery system for eligible elderly persons.

# Conclusion

The negative association between children-to-parent financial transfers and the duration of care receipt by disabled elderly persons leads us to conclude that intergenerational relations have shifted from reflecting filial piety in terms of both financial support and care-giving from younger generations to increasing financial transfers accompanied by a decreasing responsibility of providing informal care. The lack of informal care could not be compensated for by having more children, co-residing with children, or increasing the parent-to-child/grandchild transfers. Spouses seem to be replacing children’s function of care provision as the major care-givers. In addition, the community-based LTC system needs to be promoted to sustain and develop informal care, as the latter will become increasingly important with changing family dynamics. Finally, the received time of informal care, rather than the severity of physical disability measured by older people’s difficulty with ADLs or IADLs, is introduced as a way to identify the actual demand for care by elders. It is important to reconceptualise and re-investigate the duration of care provision in the Chinese context in order to develop standards of payment as part of LTC policies.

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# Tables

## Table 1 Sample characteristics

|  |  |  |  |
| --- | --- | --- | --- |
|  | Rural | Urban | Total |
|  | N=1,122 (66.0 %) | N=577 (34.0%) | N=1,699 |
| Demographic characteristics | | | |
| Age: mean (range) | 71.2  (60-100) | 72.3  (60-101) | 71.6  (60-101) |
| Gender: % (n) |  |  |  |
| -Male | 40.9% (458) | 44.2% (255) | 42.0% (713) |
| -Female | 59.1% (663) | 55.8% (322) | 58.0% (985) |
| Education: % (n) |  |  |  |
| -Illiterate | 60.2% (675) | 43.5% (250) | 54.5 % (925) |
| -Primary school | 32.8% (368) | 38.4% (221) | 34.7% (589) |
| -Middle school and above | 7.0% (78) | 18.1% (104) | 10.7 %(182) |
| Living standard: % (n) |  |  |  |
| -Poor | 50.7% (491) | 47.2% (226) | 49.6% (717) |
| -Average | 44.9% (435) | 48.2% (231) | 46.0% (666) |
| -High | 4.3% (42) | 4.6% (22) | 4.4% (64) |
| Number of children: mean (range) | 3.7 (0-10) | 3.5 (0-10) | 3.6 (0-10) |
| Physical functions | | | |
| IADLs: % (N) | 57.6% (646) | 50.6% (292) | 55.2% (938) |
| ADLs: % (N) | 42.4% (476) | 49.4% (285) | 44.8% (761) |
| Living arrangement | | | |
| Co-resident with spouse: % (n) | 65.9% (775) | 34.1% (401) | 69.2% (1,176) |
| Co-resident with child: % (n) | 65.6% (529) | 34.4% (278) | 47.5% (807) |
| Intergenerational transfers | | | |
| Financial transfer from (grand) children last year (Yuan): mean | 1,408.15 | 2,006.54 | 1,608.76 |
| Financial transfer to (grand) children last year (Yuan): mean | 317.97 | 1,129.58 | 591.08 |

## Table 2 The marginal effects for Tobit model (N=1,300)

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Coefficient** | **Std. Err.** | **P>|z|** |
| **Residence (Urban=1)** | 36.725 | 8.525 | <0.001 |
| **Age** | 1.504 | 0.576 | 0.009 |
| **Gender (Male=1)** | -1.878 | 8.860 | 0.832 |
| **Education (ref. Illiterate =0)** |  |  |  |
| **-Primary school** | -3.795 | 9.502 | 0.690 |
| **-Middle school and above** | 20.910 | 14.009 | 0.136 |
| **Living standard (ref. poor=0)** |  |  |  |
| **-Average** | -3.850 | 8.330 | 0.644 |
| **-High** | 5.985 | 20.839 | 0.774 |
| **Score of ADLs (range:0-6)** | 15.470 | 2.929 | <0.001 |
| **Score of IADLs (range:0-5)** | 20.406 | 3.157 | <0.001 |
| **Number of children** | 0.958 | 2.578 | 0.710 |
| **Co-resident with spouse** | 44.781 | 10.404 | <0.001 |
| **Co-resident with children** | 10.726 | 8.488 | 0.206 |
| **Log financial transfer from children** | -2.845 | 1.102 | 0.010 |
| **Log financial transfer to children** | -0.711 | 1.634 | 0.664 |

# Figures

## Figure 1 Monthly hours of informal care provided to older people with ADLs disability by number of ADLs (1-6) and source of care

Source: this figure was drawn by authors.

## Figure 2 Monthly hours of informal care provided to older people with IADLs disability by number of IADLs (1-5) and source of care

Source: this figure was drawn by authors.

## Figure 3 The association between the number of children and the duration of informal care received by older disabled persons, by residence status

Notes: The line showed average hours per month received by rural and urban older people with disability.