

## ABSTRACT

Among the many countries worldwide, China has one of the largest populations of older adults aged 65 and older and is one of the leading countries with dementia prevalence. Therefore, understanding the need and factors affecting long-term care in China is essential to older adults' care and quality of life. The present study aimed to analyze the association of culture (filial piety) and economic factors (income) on the living arrangements of older adults with dementia in China. This secondary analysis examined cross-sectional data from Wave 7 of the Chinese Longitudinal Healthy Longevity Survey (CLHLS) in 2014. The data collection procedures included cognitive assessments, face-to-face interviews, itemized questionnaires, and observations. Using the chi-square and Mann-Whitney *U* test, the results revealed that the primary caregiver's willingness had a significantly strong relationship with the older adult's living arrangement with household members. Adult children or other relatives assuming the role of primary caregiver had a significantly strong relationship with the older adult's living with household members. Older adults living alone or in an institution had substantially lower total household incomes than those living with household members. The findings imply that older adults whose families have a stronger sense of duty to provide care and have higher economic status are more inclined to live with family for long-term care.

## INTRODUCTION

### Significance of the Study

- The study helps to identify and understand cultural and economic factors, particularly within a developing country like China, that impact the long-term care arrangements for the fast-growing population of older adults worldwide.

### Literature Review

- Inadequate knowledge of dementia – 45% of caregivers perceived dementia as a normal process of aging and did not think medical care was necessary (Li et al., 2011).
- Approximately 62% of underdiagnosis and undertreatment of dementia is associated with low education, living in rural areas, and lack of specialized resources for diagnosis and treatment (Lang et al., 2017; Zhang, Loi et al., 2017).
- Familial obligation to provide care to older adults at home was significantly influenced by peer pressure from neighbors and relatives (Zhan & Montgomery, 2003).
- Smaller family sizes, an increase in working wives, employment shifts of adult children to cities, increased divorce rates, and developing gap in attitudes among generations increased the desire for supportive services (Dai, Mao, Wu et al., 2015; Sheng & Settles, 2006).
- China does not have government funding for home-based or community-based dementia care services; therefore, most of the services are paid at the expense of older adults and their families (Quail et al., 2020).

## PURPOSE AND HYPOTHESIS

### Purpose of the Research

- To analyze the effects that cultural factors, such as filial piety, and economic factors, such as economic status, have on the long-term care arrangement of older adults in China who have dementia.

### Research Question

- Does the long-term care arrangement of Chinese older adults suffering from dementia differ by filial piety and economic status, respectively?

### Hypothesis

- Having a stronger sense of filial piety will decrease the chances of older adults with dementia from being institutionalized.
- Having higher economic status will increase the chances of older adults with dementia from being institutionalized.

## METHODOLOGY

### Research Design

- Cross-sectional data pulled from Wave 7 of the Chinese Longitudinal Healthy Longevity Survey (CLHLS), a study on the health status and quality of life of older adults 65 years and older throughout 22 provinces in China focusing on social, behavioral, biological, and environment risk factors that contribute to healthy human longevity and mortality of older adults.

### Data Collection

- In-person data collection process led by a census taker and either a nurse or doctor/medical student recruited from the local centers for disease prevention and control and various universities.
- Random sampling method among older adults age 65 and older from counties and cities from 22 provinces in China.
- The process consisted of cognitive assessments tests, face-to-face interviews, itemized questionnaires in the home setting, and on-site coding observations.

### Sample

- CLHLS Wave 7 in the year 2014, (n=7,192).

### Measures

#### Dependent Variables

- Long-term care use: One self-report question measuring the living arrangements of the older adult categorized into those living with household members and those living alone or in an institution.

#### Independent Variables

- Filial Piety: Two self-report questions (a) identifying the most common primary caregiver assisting the older adult with ADLs and (b) measuring the willingness of that primary caregiver to provide care
- Income: Two self-report questions identifying (a) total household income within the past year and (b) received retirement pension.

### Statistical Analysis

- The Chi-Square test and Mann-Whitney *U* test were used to examine the significant differences between long-term care use of older adults and filial piety and income sources.

Characteristics	f	%
<b>Living arrangements of participants</b>		
Living with household members	5506	78.4
Living alone or in an institution	1513	21.6
<b>Willingness of primary caregiver to provide care</b>		
Willing to do	1912	93.7
Without patience	30	1.5
Need respite care	75	3.7
Unwilling to do	23	1.1
<b>Primary caregiver assisting with ADLs</b>		
Spouse		
Son	386	15.7
Daughter-in-law	712	29
Daughter	344	14
Son-in-law	313	12.8
Son & daughter	12	0.5
Grandchild(ren)	102	4.2
Other relatives	96	3.9
Neighbors	16	0.7
Social services	2	0.1
Housekeeper	87	3.5
Nobody	60	2.4
	321	13.1
<b>Sufficient financial support</b>		
Yes		
No	5759	82.1
	1254	17.9
<b>Elder has retirement pension</b>		
No		
Yes	5440	82.8
	1134	17.2
<b>Self-rated economic status compared with others</b>		
Very rich		
Rich	107	1.5
So-so	1025	14.7
Poor	5018	72.1
Very poor	667	9.6
	139	2
Total income of household last year	<i>M</i> = 23793.93	<i>SD</i> = 21877.32

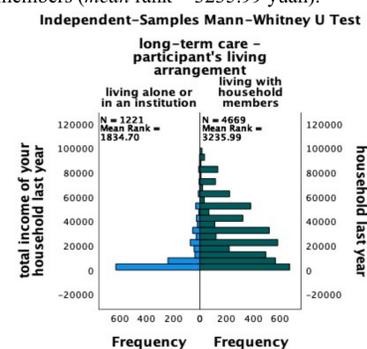
## RESULTS

### Chi-Square Test: Self-Rated Economic Status

- Examined the difference in living arrangement of older adults with their self-rated economic status. A significant association was found ( $\chi^2(4) = 64.14, p < 0.01$ ), while Cramer's *V* statistic suggested a weak relationship (0.10).
- Older adults who rated their economic status as very rich (86.9%) or rich (85.6%) were likely to live with family members. Older adults who were very poor (35.5%) or poor (27.2%) were likely to live alone or in an institution.

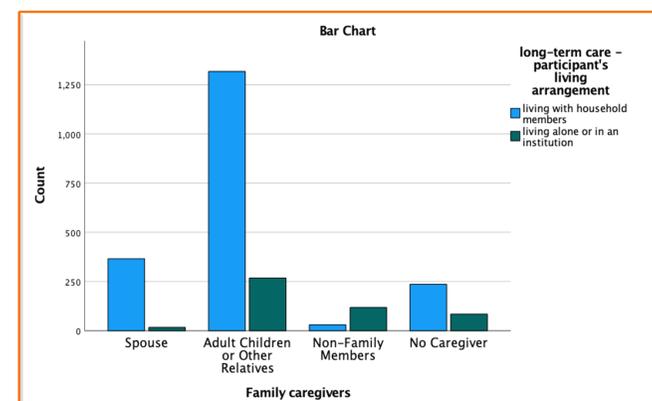
### Mann-Whitney *U* Test: Total Household Income

- Examined the difference in total household income from the previous year and older adults' living arrangements.
- Participants who lived alone or in an institution had a significantly lower household income (*mean rank* = 1834.70 yuan) than those who lived with household members (*mean rank* = 3235.99 yuan).



### Chi-Square Test: Willingness of Primary Caregiver Providing Care

- Examined the difference in older adults' living arrangement by the types of primary caregivers when the older adult needed assistance in completing their activities of daily living (ADLs) and their willingness to provide care. A significant association was found ( $\chi^2(3) = 405.686, p < 0.01$ ), while Cramer's *V* statistic suggested a strong relationship (0.41).
- Adult children or other relatives (83.1%) (daughter-in-law, grandchild) were the primary caregiver for an older adult living within the same household and 80.7% expressing their willingness. Only 16.9% of adult children or other relatives assumed the primary caregiver role for an older adult living alone or in an institution.



## DISCUSSION

### Summary

The inferential statistical analysis conducted for the current study showed mixed results between cultural and economic factors with older adults' long-term care arrangement.

- Adult children and other relatives who take the primary caregiver role tend to live with their older family member.
  - Caregivers who needed respite care tended to have older adults in their home and there was a higher percentage of caregivers who were willing to provide care to their older family member.
  - Older adults who lived in the same household with their family had no retirement pension, had higher total household income, and rated their economic status as rich in comparison with those who lived alone or in an institution who had lower income and rated their economic status as poor.
- ### Implications
- Cultural competence and sensitivity should be cultivated for all social workers through ongoing trainings developed and implemented by social workers in the community, healthcare, and educational systems.
  - Continuous widespread public health education from social workers to improve the awareness and knowledge about dementia and reduce societal stigma.
  - Social workers should be advocates for the human right to access to affordable care and services and serve as guides for older adults and families to effectively navigate the healthcare and government systems.

### Limitations

- The study was cross-sectional, making it less effective for determining cause and effect relationships, less representative of the total population, and less comprehensive of the study variables over time.
- Some scholarly articles and research used were directly translated from Chinese to English which could affect the validity of the translation and skew the analysis and review process.
- High attrition rate due to participant death or natural aging process leading to inconclusive data collection.
- The data collection methods consisted of face-to-face interviews, allowing the possibility for observation bias or response bias from the participants.

### Strengths

- The study presents a cultural lens that provides insight on cultural values and economic systems in a different part of the world allowing cultivation of new perspectives and practices that could be applied universally.
- The study's use of peer-reviewed and evidence-based studies contributed to the research's construct validity and made the research process cost and time-efficient.
- By utilizing inferential analysis methods, the evaluation of the study variables produced more concrete and standardized findings that better informed the analysis.
- The relatively large sample size and its exclusivity being older adults age 65 and older contributed to the generalizability to China's larger aging adult population.

## ACKNOWLEDGEMENT

I would like to express my deepest gratitude to my family, boyfriend, friends, and colleagues. Their love and support have given me the strength and perseverance to complete my graduate school journey. I would also like to express a special thank you to Dr. Yi for her knowledge and guidance on this Master's capstone project.