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Factors Influencing the Preferences for Informal Care among Older Japanese People—Using Psychological Factors

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Abstract

Background: Informal care has long played an essential role in the long-term care of older people worldwide. However, particularly in Japan, where aging is highly developed, the lack of formal care often results in greater demand and pressure for informal care. Therefore, it is necessary to verify psychological factors that influence older Japanese people's preferences for informal care. Furthermore, in doing so, bringing references to the field of long-term care in other countries where aging is developing. **Aim:** This study aimed to verify the psychological factors influencing the preferences for informal care among older Japanese people. **Method:** In this quantitative cross-sectional study, a total of 300 respondents were recruited to answer questionnaires to elicit their preferences for informal care. The data was analyzed by factor analysis and multiple regression analyses. **Results:** As hypothesized, some psychological factors have also been shown to significantly influence the preferences for older Japanese people towards informal care. Specifically, those Japanese people who had higher awareness of family care, higher psychological indebtedness and higher loneliness were observed to prefer informal care. **Conclusion:** The Andersen Behavioral Model is appropriate as a theoretical basis for studying older people's preferences for informal care. However, psychological factors should also be considered to impact older people's preferences for informal care.

Keywords

Japanese, Older People, Informal Care, Loneliness, Psychological Indebtedness

1. Introduction

1.1. Background

Informal care is generally defined as the unpaid care provided to older and dependent persons by a person with whom they have a social relationship, such as a spouse, parent, child, other relatives, neighbour, friend or other non-kin (Bom & Stöckel, 2021). On average across OECD countries, around 13% of people aged 50 and over report providing informal care at least weekly. The share of people aged 50 and over providing informal care is close to 20% in the United Kingdom, France, and Germany, and less than 10% in the United States, Ireland, and Greece. Younger carers (aged between 50 and 65) are more likely to take care of a parent, carers aged over 65 are more likely to take care of a spouse (OECD, 2023).

Aging in Community (AIC) as a strong support for informal care is the preferred way to age in the US. A group of like-minded ordinary people have joined together to create a system of mutual support and long-term care through the AIC to enhance their well-being, improve their quality of life and maximise their ability to age in their homes and communities (Hou & Cao, 2021).

Informal care is a large and important part of the UK's social care sector; currently one in 10 (approximately 7 million) people are engaged in informal care and this is projected to increase by 3.4 million by 2030 (Carers Trust, 2017). Although information and communication technologies (ICT)-based services, and assistive technologies (AT) as means of supporting the older people being cared for to continue living in their community, are considered to be of benefit to informal care, there is not enough evidence to prove that informal caregivers are receiving adequate help due to a lack of professional knowledge and experience (Carretero, Stewart, & Centeno, 2015; Sriram, Jenkinson, & Peters, 2020). Availability of informal care may well not keep pace with increases in care needs in the future. Assuming current patterns of care, the Personal Social Services Research Unit (PSSRU) model suggests that, from 2003 to 2026, the "demand" for informal care will increase by around 45% (Beesley, 2006). Abdi et al. (2019) also argued that the number of older people with unmet care and support needs was increasing substantially due to the challenges facing the formal and informal care system in the UK (Abdi, Spann, & Borilovic, 2019). Informal care provision is an activity in which individuals are increasingly likely to become involved across their life course, particularly in later life, as a result of demographic changes such as increasing longevity and changes in co-residential living arrangements in later life (Vlachantoni et al., 2013).

Japan is a country in which approximately 70% of elderly care is provided at home, mainly by women. In Japan, the government has mandated and implemented several social security measures conducive to family retirement. These include tax breaks for people who care for their parents over 70 years old and with low incomes, loans for people who care for their parents if they want to

build a house, and government provision of special equipment for bedridden older people if needed. Based on the Annual Report on the Aging Society results, 34.8% of the older people intended to live with children, 29.0% intended to live near children, and 18.9% intended to neither lives with nor near children (The Cabinet Office of Japan, 2018).

Japan, with the highest proportion of older people in the world (United Nations Population Division, 2019), is facing the issue of long-term care for the older population. At a time when the development of informal care is increasingly expected, this study would show the older Japanese people's preferences for informal care and bring references for informal care and community care services.

1.2. Conceptual Framework

There is a lack of models to validate the factors influencing the preferences for the informal care of older people. However, in contrast, to the use of the healthcare system (formal care), Andersen's Behavioral Model (ABM) has been widely referenced and used as a conceptual framework in the West and East (Andel, Hyer, & Slack, 2007; Wang, 2020; Fortin, Bamvita, & Fleury, 2018; Kabir, 2021). According to ABM, predisposing factors (mainly referring to demographic characteristics), enabling factors (such as marital status and financial situation), and need factors (mainly referring to health conditions) are generally considered to be predictors that influence an individual's use of health care services (Travers, Hirschman, & Naylor, 2020). When older people encounter functional difficulties that ultimately render them incapable of living independently, they require personal and health care services.

However, while ABM has been widely utilized, some studies have pointed out that ABM should be expanded to include other factors, such as psychological factors, which are also considered to impact the preferences for long-term care of older people. Some psychological factors such as awareness of family care (Karasawa, 2001; Sugisawa et al., 2002), psychological indebtedness (Watanabe et al., 2011), and loneliness (Russell et al., 1997; Luo et al., 2018) were shown to have effects on the preferences for long-term care. Luo et al. (2018) also argued that older people's attitudes and beliefs would directly influence their use of a nursing home (formal care). Therefore, psychological factors should also be predictors of considering long-term care for older people in this study. This study aimed to verify that psychological factors (awareness of family care, psychological indebtedness, and loneliness) significantly affect the preferences for informal care of older Japanese people.

2. Method

2.1. Aim

This study aimed to verify the psychological factors regarding the preferences for informal care of older Japanese people.

2.2. Study Design

Cross-sectional studies are used both descriptively and analytically. They are intuitively clear, allow for examining many variables, and are applied in various medical and healthcare fields (Alexander et al., 2015). The forms of data collection and analysis were considered the basis of the research method for this study. In this study, original data was collected and measured in numbers, which was determined as a descriptive cross-sectional study.

2.3. Pilot Study

To verify the validity of the measurement scales of psychological indebtedness and loneliness, we interviewed 15 Japanese people about the reasons influencing their preferences for long-term care. Respondents were set to be older than 65 years of age, could live independently, and had no experience in long-term care. We asked about their preferences for informal care and the reasons associated with having such intentions. Regarding preferences for informal care, 9 out of 15 people had a positive intention (expected), 4 had a negative intention (not expected), and 2 had a neutral intention (not particularly expected or not expected). For the reasons related to influencing the preferences for long-term care, 1) as aging, confidence in the health status becomes lower and has to start thinking about long-term care (15 people); 2) having family members living together (13 people); 3) financial status (14 people), such as family savings, insurance, etc.; 4) ongoing awareness and attitude towards home care (10 people); 5) the feeling of guilt due to concern about bothering others (9 people); 6) availability of enough support institutions or services in the community (7 people) 7) feeling lonely and helpless, personality type, etc. (5 people). Ultimately, the questionnaire for this study was designed based on the theoretical basis, previous studies, and the pilot study.

2.4. Sample and Data Collection

We commissioned a survey agency to recruit respondents and conduct an online survey in March 2022. Respondents were set to be older than 65 years of age, could live independently, and had no experience in long-term care. The recruitment criteria were: 1) age criteria for "older people" in Japan; 2) avoiding the influence of long-term care experience on the responses. The balance of gender and age was also considered. We provided incentives to each respondent who completed the questionnaire. The survey agency explained the purpose of the questionnaire, the ethical considerations, the composition of the questionnaire items, and the potential physical and psychological effects on those who wished to be recruited (354 people in total). Ultimately, 300 respondents (150 male, 150 female, 60 participants in each group aged 65 - 69, 70 - 74, 75 - 79, 80 - 84, and 85 - 89 years old) completed the questionnaire (85% return rate).

2.5. Statistical Analysis

Data was coded and analyzed with SPSS ver. 28.0 software. Sample characteris-

tics were summarized by descriptive statistics. Factor analysis was conducted to confirm the reliability and validity of the measurement of psychological indebtedness and loneliness. Multiple regressions were performed to determine the contributions of several factors to the outcome. In particular, multiple regressions using the forced entry method were run between various predisposing factors, enabling factors, need factors, psychological factors, and preferences for informal care. Statistical significance was defined as $^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$.

2.6. Measurements

The questionnaire has included general characteristics and measurements of preferences for informal care and psychological factors. All measurements were mocked up separately to ensure appropriate corrections were made. The items of measurements are as follows. Four items based on Watanabe et al. (2011) were used to measure the preferences for informal care. Three items based on Karasawa (2006) were used to measure the awareness of family care. Eleven items based on Watanabe et al. (2011) were used to measure psychological indebtedness. The items of the three measurements above were scored as 1 = Disagree, 2 = Somewhat disagree, 3 = Somewhat agree, and 4 = Agree. The reversal statements were scored in reverse order, 1 = Agree to 4 = Disagree, meaning that a higher score indicated a more positive attitude on the corresponding measurement above. A 20-item scale was designed by Russell et al. (1978) to measure one's subjective feelings of loneliness. The items with an asterisk are reverse-scored. The scores of each question are added up. Respondents rate each item on a scale from 1 (Never) to 4 (often) (**Table 1**).

Table 1. Measurements and items.

Measurements	Preferences for informal care
Items	1. I am happy to be taken care of by my family.
	2. I want to be taken care of by people I know.
	*3. I do not want to be taken care of by my family members.
	4. It is desirable to be taken care of by family members.
Measurements	Awareness of family care
Items	1. Family members should provide nursing care.
	2. The family must care for the older people.
	3. If the older people want family care, they should be cared for by family members.
Measurements	Psychological indebtedness
Items	Refer to **Table 4**
Measurements	Loneliness
Items	Refer to **Table 5**

* represents a reversed item.

2.7. Ethical Considerations

This study was approved by The Research and Ethics Committee of the Graduate School of Information Science and Arts, Toyo University (2022-03). After the agency had explained the study plan to the respondents, only those respondents who had signed the attached agreement form would be asked to participate in the study. Before data collection, the respondents were informed of the purpose and procedure of the study. They were also assured of their anonymity and confidentiality, protection of personal information, data disposal, and freedom to withdraw from the study at any time.

3. Results

3.1. Results of the Descriptive Statistics

Gender and age group ratios were 1:1. We obtained a comparable sample by stopping recruitment once each group reached its ratio. One hundred fifty males and 150 females from 65 to 89 years of age. 83% had one or more cohabitants (Table 2). Descriptive statistics of assessment variables are shown in Table 3.

3.2. Factor Analysis and Reliability of Scales

As independent variables in this study, the measurement scales of loneliness and psychological indebtedness were conducted as factor analysis. The results showed that the factor loadings for all items with values at or above 0.35, the loadings were acceptable, with all the items having values of at least 0.35. Therefore, all items have been scored so that higher scores indicate a higher degree of psychological indebtedness (Table 4) or loneliness (Table 5). The tables also showed the results of the α-values for the measurement scales of psychological indebtedness and loneliness. An α-value of 0.876 and an α-value of 0.911 were

Table 2. General characteristics of Japanese (n = 300).

Characteristics	Categories	n (%)	SE	Characteristics	Categories	n (%)	SE
Gender	Male	150 (50)	0.082	Age	65 - 69 y/o	60 20)	0.029
	Female	150 (50)			70 - 74 y/o	60 (20)	
Cohabitants	Yes	248 (83)	0.022		75 - 79 y/o	60 (20)	
	No	52 (17)			80 - 84 y/o	60 (20)	
					85 - 89 y/o	60 (20)	

Table 3. Descriptive statistics of assessment variables (n = 300).

Variables	Min.	Max.	Mean	SD
Preferences for informal care	4	16	10.15	2.51
Awareness of family care	3	12	7.82	2.148
Psychological indebtedness	16	44	33.2	4.928
Loneliness	20	73	43.14	8.739

Table 4. Factor analysis of psychological indebtedness (Maximum Likelihood, Promax Rotation, n = 300).

Items Factor 1 (α = 0.876)	Factor loadings
1. If you receive a favor from your friend, you will return a favor as soon as possible to maintain the friendship.	0.822
3. When someone treats you, you think you should treat him/her next time.	0.811
6. When someone does something for you, you should give something back.	0.799
9. You always think about returning a gift when someone gives you something.	0.767
7. When someone gives you something you lost, you return that person a gift.	0.699
5. When someone makes a point of helping you, you feel that you should give that person more than just a gift in return.	0.623
11. Even if it's a little kindness, it's important to feel grateful.	0.611
*10. You don't think it's necessary to always return a gift no matter what someone has done for you If someone tells you "I owe you one", you feel embarrassed.	0.588
4. When you find that you have forgotten to return something you borrowed, you feel panicked.	0.510
8. You return gifts even if it's someone you hate.	0.382

* represents a reversed item.

Table 5. Factor analysis of loneliness (Maximum Likelihood, Promax Rotation, n = 300).

Items	Factor 1 (α = 0.911)	Factor loadings
13	How often do you feel that no one knows you well?	0.725
3	How often do you feel there is no one you can turn to?	0.711
*10	How often do you feel close to people?	0.707
2	How often do you feel that you lack companionship?	0.695
*19	How often do you feel that there are people you can talk to?	0.688
14	How often do you feel isolated from others?	0.667
4	How often do you feel alone?	0.652
7	How often do you feel you are no longer close to anyone?	0.643
*16	How often do you feel that there are people who understand you?	0.623
15	How often do you feel you can find companionship when you want it?	0.599
*20	How often do you feel that there are people you can turn to?	0.576
*1	How often do you feel that you are "in tune" with the people around you?	0.551
11	How often do you feel left out?	0.534
12	How often do you feel that your relationships with others are not meaningful?	0.522
18	How often do you feel people around you but not with you?	0.499

Continued

*5	How often do you feel part of a group of friends?	0.477
*6	How often do you feel you have much in common with the people around you?	0.465
8	How often do you feel those around you do not share your interests and ideas?	0.449
*9	How often do you feel outgoing and friendly?	0.423
17	How often do you feel shy?	0.371

* represents a reversed item.

accepted to verify the reliability of scales. The results of the factor analysis were consistent with the previous studies to verify the reliability of the scale of psychological indebtedness (Watanabe et al., 2011) and loneliness (Russell et al., 1997).

3.3. Results of Multiple Regression Analysis

A multiple regression analysis was conducted to predict the preferences for informal care among older Japanese people from the psychological factors in this study. Table 6 summarizes the estimated standard parameters of multiple regression analysis. The results revealed that the model of this study significantly predicted factors influencing the preferences for informal care of older Japanese people. The psychological factors (independent variables) included awareness of family care, psychological indebtedness and loneliness. As hypothesized, the results of the regression indicated that awareness of family care significantly predicted the preferences for informal care ($\beta = 0.483$; $P < 0.001$), psychological indebtedness significantly predicted the preferences for informal care ($\beta = 0.125$; $P = 0.038$), and loneliness also significantly predicted the preferences for informal care among older Japanese people ($\beta = 0.228$; $P = 0.047$) (Table 6).

4. Discussion

This study verified psychological factors on the preferences for informal care of older Japanese people. As hypothesized, some psychological factors have also been shown to significantly influence the preferences for older Japanese people towards informal care. Specifically, those Japanese people who had higher awareness of family care, higher psychological indebtedness and higher loneliness were observed to prefer informal care.

Watanabe et al. (2011) investigated the relationship between awareness of family care and psychological indebtedness as variables and their preferences for informal care. Their results suggested that although no significant effect was found for psychological indebtedness, there was a higher willingness for informal care among older people with a higher awareness of family care. In addition, older people with a higher awareness of family care often have a stronger sense of family and had a closer and more supportive relationship with their families.

Table 6. Multiple regression analysis of the preferences for informal Care (n = 300).

Independent variables	B	SE	β	t	*p*
Awareness of family care	0.622	0.062	0.483***	7.086	<0.001
Psychological indebtedness	0.12	0.038	0.125**	3.321	0.038
Loneliness	0.012	0.020	0.228**	0.211	0.047

Therefore, they are often considered to have higher preferences for informal care. Awareness of family care is a set of emotions and attitudes. If a person firmly believes in the necessity and importance of family care, then "taking care of family" and "being taken care of by family" are natural and expected to be considered. Awareness of family care in older people is essential for the preferences for long-term care. Many older adults depend on family members for care and support. Awareness of family care may allow them to accept and continue receiving care from family members. However, older adults may also be aware of being a burden for their family members. This awareness may reduce the unpleasant feeling.

Moreover, awareness of family care may influence an individual's preference for long-term care based on financial considerations. For example, an older adult who is aware of the financial burden that their care needs place on their family may prefer more affordable long-term care. Understanding the impact of family care awareness on long-term care preferences is essential for developing care plans that meet the unique needs of each individual.

Psychological indebtedness is more complex because it involves relationships with family and relationships with others. Suppose a person has a high level of psychological indebtedness; it may be a relatively better psychological experience to trouble familiar people (family, friends) than unfamiliar people (public care staff) when they need to be cared for by someone. However, this effect may also be reversed. Older people who choose to receive professional, formal care services are required to pay a certain amount of utilization fees. At the same time, this sense of psychological indebtedness can be mitigated by paying financially. Therefore, it is also possible that older people with a greater sense of psychological indebtedness may have a lower preference for informal care. Psychological indebtedness has important implications for understanding older people's preferences for long-term care. Older adults who feel psychologically indebted to their family or caregivers may have a strong desire to repay them for their care and support. This may influence their preference for long-term care options that allow them to continue receiving care from family members or close caregivers. Psychological indebtedness may also create a sense of obligation in older adults, leading them to feel that they should continue to receive care from family members or caregivers who have provided support in the past. This may influence their preference for long-term care, allowing them to remain in the care of those they feel indebted.

Loneliness is an unpleasant and painful experience caused by a subjective

evaluation of one's unsatisfactory relationships with others. 29 Older people feel lonely primarily because they have difficulty maintaining close relationships with family, friends, or relatives. To make matters worse, living in a nursing home can further separate them from family and friends. Although a study conducted in the United States found that lonely older adults were more likely to stay in nursing homes to strengthen social networks and reduce loneliness (Russell, Cutrona, & de la Mora, 1997), another study conducted in Spain found that older adults staying in nursing homes were more likely to feel lonely compared to those staying at home (Donaldson & Watson, 1996). One more study confirmed that for the older persons in Shanghai, loneliness might result in a negative attitude towards nursing home placement and reduce their intention to enrol in nursing homes (Luo et al., 2018). Our study also confirmed that for Japanese older adults, loneliness may lead to increased dependence on family members and their preference for informal care. Loneliness is very critical to the life and psychological impact of older people. Loneliness can be a sign of a lack of social support, which may increase an individual's desire for social connection and companionship. Loneliness also has been linked to mental health by increasing rates of depression and anxiety in older adults. In addition, loneliness has also been linked to worse physical health outcomes, including higher rates of chronic diseases and mortality. Therefore, loneliness may be influenced by all of the above, which may lead to changes in preferences for long-term care in older people.

5. Conclusion

This study explored the impact of several psychological factors on older Japanese people's preferences for long-term care. An overview of previous studies on the influence of long-term care preferences of Japanese older adults focuses on personal and social attribute factors, such as gender, family composition, and economic status. In contrast, the focus on psychological factors has mainly explored the influence of psychological factors through the lens of family members or professional caregivers who provide long-term care services. Therefore, the contribution of this study is to focus on the influence of psychological factors on their long-term care preferences by targeting older people receiving long-term care. East Asian cultures have unique values, beliefs, and customs that may differ from those in Western cultures. For example, in Japan and China, filial piety (respect and care for one's parents) is highly valued, and it can influence how older people are treated and their expectations for care. Therefore, it is vital to consider the cultural context when studying the psychological factors of older people in East Asian countries. Ultimately, based on the hypotheses and results of this study, the ABM, which has been widely adopted as a study of public health use preferences, is lacking in attention to psychological factors, and the model should be expanded and revised.

Furthermore, it can be further explored that psychological factors can also

significantly impact the long-term care arrangements of older people. Firstly, a preference for familiar surroundings, then these older people tend to prefer to stay at home and have higher expectations for in-home care or community. Secondly, a need for social connection and companionship, such older people may value social experiences more and may have higher expectations for community care or institutional care. In addition, desire for autonomy, these older people may value freedom and independence more and have higher expectations for care provided by a spouse or other family members may be the most appropriate option for them. When the psychological needs of older people are higher, family members providing informal care or grasping caregivers providing formal care should also focus more on emotional support for the older people. Eventually, older people can be provided with appropriate and effective long-term care services. As a result, older people may have access to better quality long-term care services as well as a quality of life in their later years.

6. Implications for Practice

The findings have implications for practice in informal care and policy. 1) The model of the factors influencing the preferences for informal care of older people is a practical tool for improving family members' understanding of aging and nursing care, which is challenging to discuss among family members in Japan and other East Asian countries. 2) The specific results of each factor in the model can be used as references and rationales for improving informal care to enhance the effectiveness of informal care. In addition, community nursing care services, as a complement to informal care services, may also benefit from the findings and exploration of this study. 3) Although informal and formal care are often labelled as in a check-and-balance relationship in long-term care. But the relationship between family caregivers and professional nurses should not be subject to critical analysis. In particular, community care, premised on living primarily in one's own home, is now increasingly valued, community nurses are becoming more involved in informal care, and their collaboration with family caregivers is becoming increasingly important. Understanding the comprehensive background of the older people being cared for, their attitudes towards long-term care and the reasons for it can help to enhance communication between the patients, family caregivers and community nurses, thus improving the efficiency and quality of service provided by community nurses.

However, there are limitations to this study. Firstly, due to the COVID pandemic, it was difficult for us to have face-to-face communication with many older people. The influence of the pandemic on psychological factors and long-term care preferences of older people was not verified in this study. Secondly, the respondents in this study were all able to live independently at that time and had no experience of being in long-term care. Therefore, we could not examine whether having the experience of being in long-term care influenced the psychological factors associated with older people, which further influenced their

preferences for long-term care. With the characteristics of the older people and the findings of the pilot study in this study, the psychological factors in this study—awareness of family care, psychological indebtedness, and loneliness—are likely to be more influenced by the pandemic and long-term care experience. In consideration of the non-negligible influence that the above two factors may have on the psychology and consciousness of older people, it is necessary to conduct further studies related to the effects above.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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