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Intention to Use Long-Term Care Facilities: Differences beween Korean Pre-elderly and Korean Baby-boomers

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Abstract

With the rapidly increasing number of older adults, dealing with long-term care (LTC) needs becomes an emerging issue in South Korea. This study aims to examine factors affecting the intention to use longtermcare facilities with two groups of young-old adults: (1) Korean pre-elderly (KPE) and (2) Korean babyboomers (KBB). Guided by Andersen's behavioral model of health service use and prior research, predisposing characters, enabling resources, need factors, availabilities of informal care and self-care activities were used as predictors. In the final analyses, 803 KPE and 966 KBB were included. The results of logistic regression analyses showed different findings in two groups. Age, education, spouse's physicalhealth, and self-care activities for relationship with family and friends are significantly associated with intention to use LTC facilities among KPE. However, income, physical health of respondents, and relationship satisfaction with children are significantly related to intention of use LTC facilities in the group of KBB. This study suggests different LTC needs between KPE and KBB. Health care professionals and policy makers need to consider such differences to provide quality LTC care for them.

Keywords

Introduction

South Korea is one of the fastest-aging countries. The number of older adults in South Korea is dramatically growing. The Korean Statistic Information Service (KSI, February 23, 2012) estimated that the number of people age 65 or older will increase from 5.7 million (11.4 %) in 2011 to 12.7 million (24.3 %) by 2030 and 17.6 million (40.1 %) by 2060 (KSI, 2012). According to the definition of the United Nations, South Korea will be a "hyper-aged society" where 21 % or more of the population is 65 or older before 2030 (Phang 2008). This growing number of older adults indicates an increasing demand for long-term care

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(LTC) in the country. In 2011, approximately 88.5 % of older adults age 65 or older had at least one chronic condition such as high blood pressure, rheumatoid arthritis, or diabetes and about 15 % of older adults age 65 or older had other types of limitations in Instrumental Activities of Daily Living (IADL) or Activities of Daily Living (ADL) (Chung 2013).

Tradtitonally Koreans have shown a heavy reliance on informal care provided by family members (Kim and Kim 2004). Due to the emphasis on filial obligation in Confucianism (Koh and Koh 2008), adult children are expected to take care of their old parents in exchange for the care that they received as children. Although sons have a primary responsibility to care for their elderly parents, the actual care has been provided by daughters-in-law because of traditional gender roles in marriage in South Korea. In a study examining Korean caregivers, more than 70 % of caregivers for older adults were daughters-in-laws (Yoo and Chun 2005).

However, demographic changes and economic growth have led to modifications of traditional family structures and culture, which may influence the LTC needs among young-old adults. The age-dependence ratio, the ratio of those between age 15 to 64 and those age 65 and older was around 10 % in 2000; however, it will reach 70 % by 2050 (Statistics Korea, September 27, 2012). Women's participation in the workforce continually increases while the average family size decreases and family ties are loosened (Kim 2013). These changes together indicate a reduced availability of informal care and possibly an increased preference for institutional care among the young-old adult generation. There are two sub-age groups of young-old adults in Korea: Korean pre-elderly (KPE) and Korean baby-boomers (KBB). KPE is an age group that includes individuals born between 1945 and 1954, making up 8.7 % of the population (4.5 million) of the country, whereas KBB refers to the age group born between 1955 and 1963 after the Korean War, accounting for 15.7 % (8.04 million) of the population in 2008 (Statistics Korea 2012). This study aims to examine factors affecting the intention to use LTC facilities among two sub-age groups of young-old adults, called Korean pre-elderly (KPE) and Korean baby-boomers (KBB).

Korean Pre-Elderly and Korean Baby-Boomers

Two sub-age groups of young-old adults in Korea, Korean pre-elderly (KPE) and Korean baby-boomers (KBB) functioned as a main force in Korea's high economic achievement (Jung and Kim 2013). However, KPE and KBB have often been researched as different cohort groups in Korean gerontology research because of different life events (e.g., Korean War) and their influences on individuals' life. KPE is the last generation of the historic and traditional Korean society, holding to traditional values toward caring for old parents and placing more value on collectivism rather than individualism (Kim et al. 2012). On the contrary, KBB is a transitional generation from the traditional era to the modern and global area of Korean society (Han et al. 2011); they are more independent and autonomous and pursue more active and healthy lifestyles than the previous generations. Kwak (2013) pointed out that KBB tend to have fewer expectations for their children's family obligations than the previous generations even though they have taken as much responsibility for family as the previous generation did. Empirical findings showed significant differences between KPE and KBB in depression (Jung and Gu 2011), caring for physical health (Jung and Kim

2013), family strength and happiness (Kwak 2013), and preparing for retirement (Kim et al. 2012). These findings may imply potentially different LTC needs between KPE and KBB.

Factors Affecting Intention to Use LTC Facilities

Various factors can influence intention to use LTC facilities. Socio-demographic variables such as age, gender, education, and income have been often been examined as predictors for intention to use LTC facilities. Higher education appears to be consistently associated with intention to use LTC facilities (e.g., Gupta 2002; McCormick et al. 2002; Min 2005; Hong 2012). However, findings about other factors are inconsistent. For example, McCormick et al. (2002) found being older was associated with higher intention to use LTC facilities, whereas Kim and Kim (2004) found being younger was associated with intention to use LTC facilities. In addition, some studies found that being a woman was associated with intention to use LTC facilities (e.g., Min 2005; Hong 2012) even though some evidence suggested non-significant relationships between them (e.g., Kim and Kim 2004). Empirical evidence about income also offered mixed results. Some studies found a positive relationship between income and intention to use LTC facilities (McCormick et al. 2002; Jung and Kim 2013), but Kim and Kim (2004) found a negative relationship between them. These inconsistent findings may necessitate a thorough examination about LTC needs.

Given the traditionally heavy reliance on informal care in South Korea (Kim and Kim 2004), availability for informal care could be perceived as a critical factor that influences intention to use LTC facilities among young-old Koreans. Prior research also suggested the effect of availability of informal care on use of LTC services. Hébert et al. (2001) found that when older adults have limited informal resources such as having no spouse and no children, they are more likely to use institutional LTC services.

In addition to factors identified in the literature, self-care activities for successful aging may influence KPE and KBB's intention to use LTC facilities. Self-care activities for successful aging refer to intended behaviors or activities to promote successful aging. Hartman-Stein and Potkanowicz (2003) conceptualized self-care for successful aging into a person's ability to promote and maintain healthy life patterns and such behaviors in old ages. Leenerts et al. (2002) defined self-care activity as activities and skills for health promotions and identified its four dimensions such as communication about feelings and needs with the aging, healthy lifestyle in eating and exercise, building meaning in life, and socializing. Both KPE and KBB are often characterized by active lifestyles (Kim et al. 2012) and more interest in self-care (Kwak 2013). The self-care activities for successful aging may be a salient quality that represents young-old adults in Korea.

Studying self-care activities or habits could provide an integrated perspective in understanding the use of health service resources (Leenerts et al. 2002). However, there is a dearth of research on the effect of self-care activities in later life. Only a handful of recent studies empirically examined the effect of self-care activities in later life and found the positive relationship between self-care activities and quality of life among female adults in Hong Kong (Mo and Winnie 2010) and among older adults in China (Zhang et al. 2013). With a large number of young-old adults entering later life, it is critical to understand their

LTC needs in South Korea. When examining factors affecting LTC needs, inclusion of the unique characteristics of KPE and KBB (e.g., self-care activities) could provide useful insight about generation-specific LTC needs of young-old Koreans.

The conceptual model for the present study was built upon the Aandersen's behavioral model of health service use. According to the model, use of health care services is determined by three components such as predisposition, enabling and need factors (Andersen 1995). Predisposition factors include demographic characteristics such as age or gender. Enabling factors are resources that help individuals to use health care services such as education or income whereas need factors refer to motivators such as health status of individuals. Since its development in 1968, the Anderson Behavioral Model has been widely used in health care studies to predict use of health care services (Babitsch et al. 2012). For the present study, we added two components to the original three components of the Anderson behaviroal model. Given the important role of informal caregiving in South Korea, availability of informal care resources such as the number of adult children, health status of spouse, and relationship satisfaction with adult children and spouse were added. In addition, self-care activities were included to identify how the salient characteristic of young-old adults affects intention to use LTC. Figure 1 depicts the conceptual model for this study.

The present study aims to 1) examine factors affecting intention to use LTC between KPE and KBB and 2) explore a relationship between self-care activities for successful aging and intention to use LTC facilities between KPE and KBB. We hypothesized that higher self-care activities for successful aging are positively related to intention to use LTC facilities. Greater self-care activities may indicate higher self-reliance and willingness to control one's own life, thus young-old adults with higher self-care activities may prefer to use LTC facilities rather than relying on their adult children or spouses to deal with LTC needs. Despite increasing research on differences between KPE and KBB, to our knowledge, no studies have examined LTC needs between these two groups.

Methods and Data Analysis

Subjects

The present study is a secondary data analysis using a national survey in South Korea funded by National Research Foundation of Korea (Kim 2011). Given the rapid aging of the Korean society, a national survey was conducted in 2011 to examine preparation for aging of two cohorts: KPE and KBB. This cross-sectional survey employed a quota sampling strategy; based on the population sizes of 15 administrative districts, KPE and KBB were proportionately selected from each administrative district. A total of 2026 KPE ($n = 1005$, 49.6 %) and KBB ($n = 1021$, 50.4 %) were recruited, and face-to-face interviews were conducted by professionally-trained interviewers for five weeks in 2011. Research participants were predominantly married (89.9 % for KPE and 94.5 % for KBB). Prior research consistently found that having a spouse is an important factor in predicting use of LTC services (e.g., Buhr et al. 2006; Hébert et al. 2001). Given the disproportionate distribution of marital status, this study included only respondents who weremarried and living with a spouse (803 of the KPE and 966 of the KBB), which assures homogeneity of the study sample.

Measures

A dependent variable, intention to use LTC services, was assessed by a dichotomous measure with a single-item that asks survey participants about their intention to use LTC facilities. Sociodemographic variables such as age, sex (0 = male, 1 = female), education level (six response categories from no education to more than a master's degree), and income were also included. The physical health of respondents was assessed using a single item with four response categories that asks perceived health (1 = *very bad* to 4 = *very good*). The Korean version of Center for Epidemic Studies Depression (CESD-K) was used to measure the mental health status of respondents. The CESD-K consists of 10 items asking about depressive feelings and behaviors during the past week using a 4-point Likert scale (1 = *rarely or none of the time*, to 4 = *most or all the time*). The possible score range of CESD-K is from 10 to 40 and internal consistency of CESD-K was .81 in this sample.

Availability of informal care consists of five variables: the number of children, the relationship satisfaction with children and spouse, physical health of spouse, and mental health of spouse. Relationship satisfactions were assessed by a 4-point Likert item asking respondents' perceived relationship satisfaction with a spouse and children (1 = *very unsatisfied*, 4 = *very satisfied*), respectively. In addition, mental health and physical health of a spouse were assessed by a single 4-point Likert scale question that asks the degree of perceived mental and physical health of a spouse (1 = *very bad*, 4 = *very good*), respectively.

Self-care activities were assessed using two newly constructed scales for this study: self-care activities for health and finance and those for social relationships. The original survey included the 18 items of the Self-Care Activities for Successful Aging Scale (SCASA, Lee 2009) to measure three domains of self-care activities such as finances, health, and social aspects using a 4-point Likert scale (1 = *strongly disagree*, 4 = *strongly agree*). However, because of low internal consistency of the SCASA in this sample (below .6 for all subscales), the original scale could not be used. Therefore, based upon the corrected item-total correlation, the 12 items of the SCASA were selected and exploratory factor analysis (EFA) was conducted using maximum likelihood extraction with the 12 items. Oblimin rotation was used because the correlations of factors were above .32, following Tabachnick and Fidell (2007).

EFA identified two factors with an eigenvalue greater than 1: self-care activities for health and finance, and those for relationships with family and friends. Table 1 reports the result of EFA on the scale. These two factors explained 33.1 % of the total variance with each factor, explaining 27.5 % and 5.6 %, respectively. Nine items loaded on factor 1 with absolute values of factor loadings ranging from .320 to .686, whereas three items loaded on factor 2 with absolute values of factor loadings ranging from .486 to .854. As a rule of thumb, a factor loading greater than .32 is considered good (Stevens 2002.

Based upon the results of EFA, two subscales were constructed: nine items of self-care activities for health and finance and three items of self-care activities for relationship with family and friends. Self-care activities for health and finance include statements about regular exercise, healthy eating and finance preparation for later life. Empirical evidence suggests that the lack of financial resources is considered the most common obstacle to

promoting self-care behaviors for health among older adults (Bai et al. 2009; Borg et al. 2006; Sandberg et al. 2013). The possible range of the subscale of self-care activities for health and finance is from 9 to 36. The subscale of self-care activities for relationship with family and friends consist of statements about maintaining good relationships with friends and family members with the possible score range of 3 to 12. In both sub-scales, higher scores indicate greater self-care activities. Internal consistency of self-care activities for health and finance, and self-care activities for relationships with family and friends were .75 and .70, respectively.

Statistical Analysis

Chi-square test was conducted to examine if differences in intention to use LTC exist between KPE and KBB. To investigate factors affecting use of LTC services, two separate logistic regression analyses were conducted with KPE and KBB. The same set of independent variables was entered in the following order: (1) age, gender, education, and income (2) perceived physical health and depression, (3) total number of children, physical health of a spouse, and mental health of a spouse, as well as relationship satisfaction with children and with a spouse, and (4) self-care activities for relationship with family and friends and self-care activities for health and finances. SPSS version 21 was used for all statistical analyses reported in this study.

Results

Table 2 presents the sample characteristics of this study. The average ages were 60.6 years (SD = 2.82) for KPE and 51.89 (SD = 2.58) for KBB, and around half of the respondents were male in both samples: 471 (52.2 %) in KPE and 481 (49.8 %) in KBB. Around 60.8 % of KPE completed more than a high school education whereas 92 % of KBB completed more than a high school education. Overall, 66.4 % of KPE and 75.2 % of KBB had a job. KBB showed slightly higher levels of physical health (M = 2.94, SD = .51 for KPE and M = 3.05, SD = .52 for KBB) and lower levels of depression than KPE (M = 18.68, SD = 4.54 for KPE, M = 17.50, SD = 4.30 for KBB). Around 35 % of KPE expressed their intention to use LTC facilities, whereas about 28.9 % of KBB intended to use LTC facilities. Chi-square result indicates that the difference was significant ($p < .001$).

Table 3 presents the results of logistic regression analyses for each group. The final logistic regression model was significant in the sample of KPE (Model chi-square = 1085.201, $p < .001$). Out of 13 predictors in the logistic regression model, four predictors were found to be associated with intention to use LTC facility among KPE: Age (B = .10, Exp (B) = 1.11, p < .001), income (B = .08, Exp (B) = 1.09, $p = .003$), physical health of a spouse (B = −.64, Exp (B) = .53, p < .001), and self-care activities for relationship with family and friends (B = .15, Exp (B) = 1.16, $p = .025$). KPE who were older and had higher income were more likely to intend to use LTC facilities. Furthermore, KPE who had a spouse with worse health and practiced more self-care activities for relationships with family and friends were more likely to intend to use LTC facilities.

In the sample of KBB, the final logistic regression model was significant (Model chi-square = 1118.955, $p = .001$) and three predictors were significant in the model. The results showed

that income (B = .10, Exp (B) = 1.11, p = .004), physical health (B = −.51, Exp (B) = .60, p = .002) and relationship satisfaction with children (B = .40, Exp (B) = 1.51, p = .006) were significantly associated with intention to use LTC facilities. KBB with higher income, worse health, and higher relationship satisfaction with children were more likely to intend to use LTC facilities.

Discussion

A bivariate analysis revealed that the older group, KPE, shows a higher intention to use LTC facilities (35.1 %) than the KBB group (28.9 %), and the difference between the two groups was significant. KBB may not have seriously considered their LTC because of their relatively young age. However, interestingly, more respondents in both KPE and KBB groups in this study expressed intentions to use LTC facilities than those in a study conducted by Kim and Kim (2004). Kim and Kim (2004) examined intention to use LTC facilities among Korean older adults age 65 or older, and 18.8 % of their sample reported the intention to use LTC facilities. This increasing percentage of intention to use LTC facilities in our study may reflect the increased preference for institutional care among the young-old adults in Korea.

Multivariate logistic regression analyses showed that income was the only factor associated with intention to use LTC facilities in both KPE and KBB. Young-old adults with higher income are more likely to intend to use LTC facilities, supporting prior evidence with Koreans (Jung and Kim 2013) and Japanese Americans (McCormick et al. 2002). Except for the indicator of income, KBB and KPE showed different factors associated with intention to use LTC facilities. Among predisposition factors, age was associated only with KPE's intention to use LTC facilities. Older KPEs are more likely to intend to use LTC facilities as indicated by early studies with older Asian adults (McCormick et al. 2002; Min 2005). The non-significant finding on age in the KBB may be in line with our finding from bivariate analysis; KPE reported a significantly higher intention to use LTC facilities than KBB. When the data were collected, the age ranges of KPE and KBB were between 56 and 65 and between 47 and 55, respectively. For those who were in their late 40s and mid-50s, the issues related to LTC may have seemed too distant.

It is interesting to note some different findings between KPE and KBB. The respondents' perceived physical health was the significant factor only for KBB, whereas physical health status of a spouse was significant for KPE. These different findings may be explained by the distinct characteristics of each cohort. Because KBB tend to be more self-reliant and independent than KPE (Kim et al. 2012), their own health status may play an important role in developing intention to use LTC facilities. However, for KPE who hold traditional values like familism more than KBB (Kim et al. 2012), health status of spouse is a critical resource regarding their LTC needs. Furthermore, satisfactory relationship with children was a significant indicator only for KBB. KBB's fewer expectation toward their adult children regarding filial obligation than KPE's (Kwak 2013), may confound the association between relationships with children and intention to use LTC facility. KBB with fewer expectations for their children to take care of themselves may intend to go to LTC facilities as well as

have better relationship with their adult children. Recent literature often found the declined norm of filial obligation among adult children in Asian countries (Tsutsui et al. 2014).

Out of two subdomains of self-care activities, self-care activities for relationships with family and friends were significant only for KPE. This finding may reflect KPE's positive perspective toward LTC facilities. KPE who practice more self-care activities for relationships with family and friends may be more sociable, so they prefer to continue their social relationships with a similar age group of people at LTC facilities. Furthermore, as explained above, due to a relatively young age, KBB (age 46 to 54 in 2011) may not contemplate their LTC needs, which may contribute to a non-significant effect of self-care activities on successful aging.

This study has limitations that should be noted. First, although intention to use LTC services has often been used as a proxy measure of actual behavior (e.g., Kim and Kim 2004; Hong 2012), intention may not always lead to actual use of LTC services. Factors that have been found to be associated with intention to use LTC service may not be related to actual use of LTC services. In addition, findings from this study could not be generalizable to the entire Korean young-old adults because of non-probability sampling strategy used in the original survey.

Despite limitations mentioned above, this study advances literature on LTC needs in several ways with implications for practice, policy, and further research. First, the finding of the increased intention to use LTC facilities compared to prior research demonstrates the growing need for LTC facilities. This growing preference for LTC facilities has been taking place in other Asian countries as well, such as China (Zhan et al. 2011), Taiwan (Lee et al. 2010; Wu et al. 2014), and Japan (McCormick et al. 2002; Tsutsui and Muramatsu 2005). Despite the pressing need for LTC facilities, the current number of LTC facilities in Korea is not sufficient to respond to such growing LTC needs (Kim and Kim 2004; Kim et al. 2012). There are two major types of facilities for older adults with some level of medical care in Korea: (1) living facilities such as group homes, assisted living, and paid housing and (2) medical facilities such as LTC hospitals, group homes with nursing care, and nursing homes (Ministry of Health and Welfare 2011). As of 2010, the capacity of these facilities was 148,322 older adults (Ministry of Health and Welfare 2011), which represents less than 3 % of the older adult population in 2010 in Korea. Therefore, policymakers need to consider expanding LTC facilities to meet such increasing needs for LTC facilities.

In addition, the findings of different indicators for intention to use LTC facilities with KPE and KBB imply the differences in the cohort effects on LTC needs. Each generation has different exposures to historical and social events and different life experiences (Rosow 1978). Despite some commonalities, KPE and KBB show different characteristics in educational background, lifestyle, and health status, suggesting potential variations in their LTC needs. Health care professionals and policy-makers need to be aware of different LTC needs between KPE and KBB and consider redesigning LTC services to meet distinct LTC needs for each group. For example, providing group activities with other residents in LTC facilities could be beneficial for KPE, whereas KBB may prefer adult children's regular

visits. Thorough LTC needs assessments with KPE and KBB may better serve the unique LTC needs of each group.

Future studies are needed to follow up on the findings of this study. First, qualitative studies with KPE and KBB may provide in-depth knowledge about group-specific LTC needs. For example, structured focus-group interviews could examine what factors motivate KPE and KBB to use LTC facilities and what types of services they expect to receive in LTC facilities. In addition, longitudinal studies are necessary to track changes in LTC needs over time among KPE and KBB, respectively. Such multiple-year observations with each group may help to identify how intention to use LTC facilities is related to actual use of LTC facilities. Lastly, research on the relationship between self-care activities for successful aging and LTC needs among Western baby-boomers could offer crucial knowledge to better serve this group.

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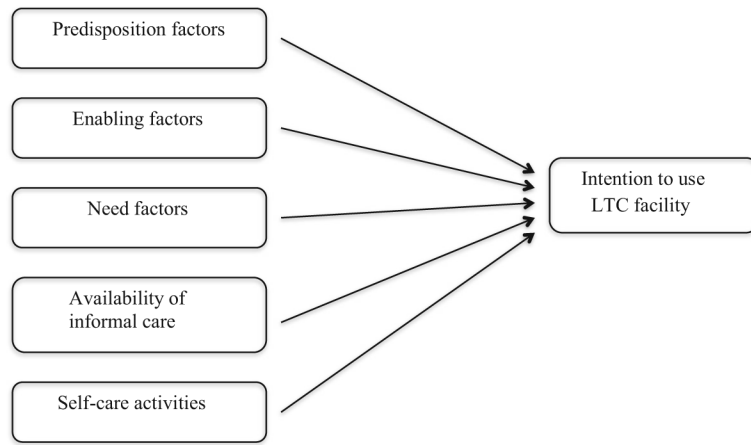
Predisposition factors

Enabling factors

Need factors

Intention to use LTC facility

Availability of informal care

Self-care activities

Fig. 1.
Conceptual Model

Table 1

Result of exploratory factor analysis

	Factor loading (absolute value)	
	Factor 1	**Factor 2**
9. Finance preparation for health service in old age	**.686**	.006
8. Finance preparation for leisure in old age	**.674**	.071
10. Finance preparation for independent living in old age	**.598**	.004
1. Self care for ordinary regular exercise	**.511**	.018
5. Eating 5 types of fruits and vegetables	**.510**	.070
4. Avoid instant food and eating out	**.414**	.020
2. Taking dietary supplement	**.392**	.086
14. Planning to have some hobbies and do leisure activities in old age	**.362**	.247
3. Maintaining the healthy weight	**.320**	.122
17. Having a friend who can go out with me in old age	.068	**.854**
16. Trying to keep a good relationship with spouse and family	.026	**.619**
15. Joining informal meetings with friends frequently	.129	**.486**

Items are arranged by the size of its factor loading

Loadings equal to .32 or above are presented in bold

Table 2

Sample characteristics

	KPE		KBB	
	M (SD)	%	M (SD)	%
Age	60.6 (2.82)		51.89 (2.58)	
Depression	18.68 (4.45)		17.50 (4.30)	
Perceived physical health	2.94 (.51)		3.05 (.52)	
Physical health of spouse	3.06 (.49)		3.06 (.61)	
Mental health of spouse	2.89 (.62)		3.17 (.53)	
Relationship satisfaction with children	3.28 (.57)		3.31 (.58)	
Relationship satisfaction with spouse	2.84 (.67)		2.97 (.55)	
Self-care activities for relationships with friends and family	8.53 (1.41)		8.67 (1.46)	
Self-care activities for health and finance	26.56 (4.11)		26.69 (4.41)	
Gender (male)		52.2		49.8
Education				
No education		.7		-
Elementary school		10.6		1.9
Middle school		27.5		6.1
High school		49.5		64.7
College education		11.4		25.7
More than college education		.3		1.7
Household type				
Married couple only		46.5		12.0
Married couple with adult children		49.8		85.0
Extended family (Living with adult children and grandchildren)		3.7		3.0
Having a job		66.4		75.2
Intention to use LTC facilities		35.0		28.9

Table 3

Results of logistic regression: Intention to use long-term care facilities between KPE and KBB

		KPE				KBB			
		B	**Exp (B)**	**S.E.**	**Sig**	**B**	**Exp (B)**	**S.E.**	**Sig**
	Constant	**-8.65**	**.00**	**1.91**	**.000**	−.57	.57	1.9	.764
Predisposition	**Age**	**.10**	**1.11**	**.03**	**.000**	.01	1.01	.03	.709
	Gender	.02	1.02	.16	.922	.01	1.01	.16	.968
Enabler	Education	.12	1.13	.11	.257	.00	1.00	.14	.979
	Income	**.08**	**1.09**	**.03**	**.003**	**.10**	**1.11**	**.03**	**.004**
Needs	**Physical health**	.32	1.38	.17	.058	**−.51**	**.60**	**.17**	**.002**
	Depression	−.02	.98	.02	.319	−.01	.99	.02	.522
Availability of informal care	Number of children	.05	1.05	.10	.635	−.14	.87	.12	.229
	Physical health of spouse	**−.64**	**.53**	**.14**	**.000**	−.18	.83	.15	.224
	Mental health of spouse	−.25	.79	.18	.177	−.09	.92	.18	.641
	Relationship with children	−.10	.90	.15	.486	**.40**	**1.50**	**.14**	**.006**
	Relationship with spouse	.18	1.19	.15	.239	−.13	.88	.13	.333
Self-care activities	**Self-care activities for relationships with friends and family**	**.15**	**1.16**	**.07**	**.025**	.05	1.05	.059	.397
	Self-care activities for health and finance	.05	1.05	.03	.063	.02	1.02	.02	.979
Model summary	Model chi-square (*df*)	83.836 (13), *p* < .001				40.459 (*12*), p < .001			
	−2 Log likelihood	1075.154				1110.425			
	Cox & Snell R^2	.90				.041			
	Nagelkerke R^2	.123				.059			

Predictor variables with *p*-value less than .05 are presented in bold