The Relationship between Caregiving Commitment and the Will to Continue Caregiving for Family Caregiver of Frail Elderly at Home

Young-Eun Chang¹, Yoshinori Koyama², Kazumitsu Okabe², Kazuo Nakajima³

Abstract: The point of this study is to get a basic data of families who contribute to in-home care for the elderly in need of caregiving. The cognition related to a role of family caregiver is stated as ‘Caregiving Commitment’, and this concept is basically consisted of three (3) factors, ‘Affective Commitment’, ‘Continuance Commitment’, and ‘Normative Commitment’. The purpose of this study is to define the relationship between those commitments and the family’s will to continue the in-home care. In results, within the three (3) factors that constituting ‘Caregiving Commitment’, it indicated that the ‘Affective Commitment’ and ‘Normative Commitment’ have a significant effect on the family’s will to continue the in-home care. And this suggests that the commitment theory cannot be denied. As to conclude, along with the existing home care service, if the elderly wish to receive in-home care, and if their families have a will to continue the in-home care for the elderly, it revealed the importance of intervention, either directly to the ‘Caregiving Commitment’, or indirectly through the factors that relate to ‘Caregiving Commitment’.

Key words: Frail Elderly, Caregiving, Commitment

I Introduction

In Korea, it is estimated that the number of old people who have psychosomatic malfunction caused by the consequences of dementia or cerebral hemorrhage will be dramatically increased in the future along with the rapid graying of the population. In Korea culture, these aged groups tend to live and cared by the family members or relatives. It is part of the culture of paying a respect to the elders.
However, times have changed. Nowadays, the females have rapidly gained high academic achievements and the number of nuclear families has been growing which cause the capacity of caring for their older families has been remarkably declined. The family members tend to have their elders to be sent to retirement homes. This fact is revealed by the report that mental and physical health of family caregivers has been declined in developed countries like in Europe and America. Nevertheless, most Korean people still have been caregiving their care needed families at home. It is presumed that the reasons for keeping home care is not just explained by the word 'respecting for the aged and parents', but by the close relevance of compound emotions related with the awareness of taking a role as a family member.

According to the results of current research, the compound emotions are defined as fondness, devotion, emotions expecting a mutual reward, or a sense of duty and so on. It is reported that, between parents as frail elderly and their grown-up children as family caregiver, the stronger fondness of caregiving or sense of duty to care old parents they have, the more aggressive they care for their parents. And also, Chang (2008) has clearly grasped caregivers' acknowledgement of their roles from the conception of Caregiving Commitment, and has reported effects of the subordinate concept on family caregiver's tendency to get depressed. In addition, Higashino (2007) has reported influences of caregivers'sense of duty to support their parents on 'the Will to Continue Caregiving'. Summarizing the results of the former study above, it is assumed that, as to acknowledgement of caregiving roles, family caregiver's fondness, devotion, emotions expecting a mutual reward, or a sense of duty for frail elderly are closely related with 'the Will to Continue Caregiving'. However, there are quite a few study that empirically inspect the fact shown above. Considering a rapid graying of population, it might be expected that we should investigate the mechanism of keeping home cares and examine the spread of caregiving in East Asia based on Confucianism.

Therefore, for the purpose of gaining basic data on family caregivers for frail elderly, this study considers the acknowledge of the family caregivers' roles as the concept of 'Caregiving Commitment' and aims at revealing the effects of the three subordinate concepts, namely 'Affective Commitment', 'Continuance Commitment' and 'Normative Commitment' on their 'the Will to Continue Caregiving'.

II Methods

1. Subjects & Research

The subjects were sampled from 500 main family caregivers caring for the frail elderly (65 years or more) in a city of Korea participated in the research. Those are using Day-care service center and the senior welfare center and utilizing in/out patient of the Oriental medicine hospital. The research questionnaires were distributed after obtaining cooperation agreement by social workers and hospital relations. Only the family caregiver who rendered consent to cooperate in the research were asked for completion of the questionnaire. The completed questionnaires of the main family caregiver were collected and tightly sealed in order to maintain privacy. Research duration was from November, 2008 to January, 2009 for 3months.

2. Questionnaires

The questionnaire included frail elderly's gender, age, and conditional function (Physical Function and Cognitive Function), and Behavioral Disturbance. It also included and family caregiver's gender, age, relationship with frail elderly, daily caregiving time, duration of caregiving, Caregiving Commitment, and the Will to Continue Caregiving.

1) Frail elderly's Conditional Function and Behavioral Disturbance

The Conditional Function of frail elderly was measured from two sides of the Physical Function and Cognitive Function.
Physical Function was measured using the Korean's Barthel Index \(^{12-13}\) (10 items). This Index is composed of feeding, transfer, grooming, toilet use, bathing, ambulation, stairs, dressing, bowel control, and bladder control. It was measured with 8 items except for the item of the bowel control and the bladder control which are discharge movement by the inside and this research. The item was administered using from 2-point to 4-point response category, and scores were derived according to the Barthel Index scoring method (independent - minor help - major help - dependent points, for selections from 2 to 4 points.

Cognitive Function was measured using the Cognitive Function Scale (6 items) by Tsutsui(1999) \(^{14}\). The item was administered using a three-point response category, and scores were derived according to 'Not Possible', 'A little possible', 'Possible'.

Behavioral Disturbance was measured using the frail elderly’s Behavioral Disturbance Scale \(^{15}\) (13 items). The item was administered using a three-point response category, and scores were derived according to 'Not at all', 'Sometimes', 'Often'. The family caregiver measured of conditional function and Behavioral Disturbance for frail elderly.

2) Family caregiver’s Caregiving Commitment

On this study, Caregiving Commitment is defined as the psychological role and cognitive reaction of the family caregiver to caregiving at home. The factors of three-component conceptualization were named ‘Affective Commitment’, ‘Continuance Commitment’, and ‘Normative Commitment’. It is consisted of a total of 12 items selected from the Caregiving Commitment by Chang \(^{10}\). ‘Affective Commitment’ means the family caregiver’s emotional attachment to caregiving. ‘Continuance Commitment’ means the family caregiver’s assessment of the costs associated with caregiving. Lastly, ‘Normative Commitment’ means the family caregiver’s sense of obligation to remain in their caregiving.

The item was administered using a four-point response category, and scores were derived according to ‘I don’t believe at all’, ‘I believe less’, ‘I believe a little’, ‘I strongly believe’. The higher score is based on the psychological role and cognitive reaction of the family caregiver to caregiving at home.

3) Family caregiver’s the Will to Continue Caregiving

The Will to Continue Caregiving is defined as the feeling of a family caregiver who opted to look after the frail elderly for him or self at home. Family caregiver’s the Will to Continue Caregiving was measured using Sakurai(1999) \(^{16}\) has the Will to Continue Caregiving Scale(8 items). The item was administered using a three-point response category, and scores were derived according to ‘No’, ‘Neither’, ‘Yes’.

3. Analytic Strategy

On the statistical analysis, at first, we focused on Construct Validity from the factor structure model’s aspect. And we analyzed the factor structure model’s validity to each measuring scales using Confirmatory factor analysis with Structural Equation Model. Then, as for frail elder’s Physical Function scale (the Korean’s Barthel Index), Cognitive Function scale, and the Will to Continue Caregiving scale are defined as a single factor model. And we constructed a second-order factor model comprised of the factors, hard to control emotions, to wander around the outside, abnormal cognition of things, persecution hallucination and complex, and weariness and forgetfulness used as first-order factors and Behavioral Disturbance scale as a second-order factor, and studied the goodness of fit on the date for the model by confirmatory factor analysis.

Then, in the statistical analysis, measurement index of categorical response was administered ordinal scale by qualitative variable, both the Korean’s Barthel Index has 2, 3 or 4 point response category, Cognitive Function Scale (6 items) and Behavioral Disturbance Scale (13 items) have 3-point response category. From those facts, parameters
were estimated using a WLSMV (Weighted Least Squares with Mean and Variance adjustment) estimator in the case of using categorical variables, or a ML (Maximum-Likelihood) estimator otherwise. The loading path coefficient of indicator variables, all Critical Ratio values in the models were 1.96 or more (5% significance level) and, all over loading paths were considered to be statistically significant. In addition, we evaluated the reliability of internal consistency of scale by Cronbach’s α coefficient.

Second, the relationship between Caregiving Commitment and the Will to Continue Caregiving was assumed as a causal analysis model from a Three Component Model of Organizational Commitment by Meyer(2002) 17. On this study, the antecedent factor of Caregiving Commitment regarded family caregiver’s gender, age was put in Caregiving Commitment and the Will to Continue Caregiving of causal analysis model. Also, the potentially stressor of Caregiving Commitment regarded frail elder’s Physical Function, Cognitive Function, Behavioral Disturbance was put in causal analysis model. The agreement of a causal analysis model above with tested data and the relationship between factors were analyzed by Structural Equation Model. For instance, on family caregiver’s gender, we used dummy variables namely ‘1’ represented male and ‘2’ represented female. Also, family caregiver’s age was quantitatively analyzed. Moreover, frail elder’s Physical Function, Cognitive Function, Behavioral Disturbance were quantitatively variables by total scores of each scale.

The hypothetical model's fitness to the data was assessed using the Comparative Fit Index (CFI) and the Root Mean Squares Error of Approximation (RMSEA). For adequately fitting models, these fitness indices should meet the following criteria: CFI > 0.90, RMSEA < 0.0818,19.

In the above analyses, we used the statistical software SPSS12.0J for Windows and M-plus version 2.0120. In regards to statistical analysis, we used data from 316 out of 354 persons with completely-filled-up questionnaires (valid response rate 70.8%).

III Results

1. Distribution of subject attributes and response for item

Table 1 presents the characteristics of family caregiver and frail elderly.

The family caregiver’s consisted of 64 males (20.3%) and 252 females (79.7%). The average age was 48.4 years old (Standard deviation 10.3, range

<table>
<thead>
<tr>
<th>Table 1 Responses for the characteristics of subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Family Caregiver)</td>
</tr>
<tr>
<td>Gender</td>
</tr>
<tr>
<td>Average age</td>
</tr>
<tr>
<td>Relationship with Frail elderly</td>
</tr>
<tr>
<td>Duration of caregiving</td>
</tr>
<tr>
<td>Daily Caregiving time</td>
</tr>
</tbody>
</table>

| (Frail elderly) |
| Gender   | Male | 72 (22.8) | Female | 244 (77.2) |
| Average age | 77.8 years (SD=7.7, Range 65~98) |

unit : people(%), SD : standard deviation, n = 316
Distributions of the family caregiver’s relationship to the frail elderly were as follows: Most caregivers 139 were daughters-in-law (44.0%), 84 were daughters (26.6%), and 47 were son (14.9%), and 29 were spouses (9.2%). The family caregiver’s total duration of caregiving was 47.1 months (Standard deviation 58.8, range 0.5~360) and daily caregiving time was 5.5 times (Standard deviation 3.9, range 0.5~18).

The frail elderly’s consisted of 72 males (22.8%) and 244 females (77.2%). The mean of age was 77.8 years old (Standard deviation 7.7, range 65~98). As for the average scores of the degree of disorder, the average scores of Physical Function was 13.6 (standard deviation 5.0, range 8~24), Cognitive Function was 8.9 (standard deviation 3.4, range 6~18), and Behavioral Disturbance was 18.5 (standard deviation 4.8, range 13~35).

2. Examination of construct validity and reliability of the method of measurement

We conducted CFA (Confirmatory Factor Analysis) in order to consider construct validity and reliability about each in measurement scales from the aspect of factor structure. The CFA results showed the path coefficient was all statistically significant level that frail elder’s Physical Function Scale (Korean’s Barthel Index) was $\text{CFI} = 0.997$, $\text{RMSEA} = 0.071$, Cronbach’s $\alpha = 0.932$, Cognitive Function Scale was $\text{CFI} = 0.996$, $\text{RMSEA} = 0.097$, Cronbach’s $\alpha = 0.925$, Behavioral Disturbance Scale was $\text{CFI} = 0.982$, $\text{RMSEA} = 0.066$, Cronbach’s $\alpha = 0.880$.

The factor structure of Caregiving Commitment Scale (Table 2) hypothesized and tested the second-order factor model. We constructed a second-order factor model comprised of the factor, Affective Commitment, Continuance Commitment, and Normative Commitment used as first-order factors and Caregiving Commitment Scale as a second-order factor, and studied the goodness of fit on the date for the model by confirmatory factor analysis. The CFA results showed that the second-order factor model yielded a goodness fit to the data ($\text{CFI} = 0.959$, $\text{RMSEA} = 0.093$). Furthermore, except for the loading paths of indicator variables constrained to be 1, all standardization coefficient of path estimate was statistically significant level. It was shown by standardization coefficient that all statistically significant level ($p<0.05$) (Figure 1). Caregiving Commitment’s three-factors showed Cronbach’s $\alpha$ coefficient for internal consistency that Affective

<table>
<thead>
<tr>
<th>Table 2 Responses for Caregiving Commitment of Family Caregiver</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Affective Commitment</strong></td>
</tr>
<tr>
<td>Item</td>
</tr>
<tr>
<td>I do not believe at all</td>
</tr>
<tr>
<td>Xa1. I am proud of caregiving.</td>
</tr>
<tr>
<td>Xa2. I intend to do caregiving.</td>
</tr>
<tr>
<td>Xa3. I believe to the purpose of caregiving.</td>
</tr>
<tr>
<td>Xa4. I believe that caregiving is worthy.</td>
</tr>
<tr>
<td><strong>Continuance Commitment</strong></td>
</tr>
<tr>
<td>Xa5. I believe I will learn a lot from continued caregiving.</td>
</tr>
<tr>
<td>Xa6. I believe that caregiving is important, I will keep on doing.</td>
</tr>
<tr>
<td>Xa7. I believe that caregiving is good, I will keep on doing.</td>
</tr>
<tr>
<td>Xa8. I have benefited a lot from them that’s why I am doing.</td>
</tr>
<tr>
<td><strong>Normative Commitment</strong></td>
</tr>
<tr>
<td>Xa9. I feel a responsibility for caregivings.</td>
</tr>
<tr>
<td>Xa10. Even I would like to do other things, I am obligated to caregiving.</td>
</tr>
<tr>
<td>Xa11. Even though there are other caregivers, I feel responsibility for caregiving myself.</td>
</tr>
<tr>
<td>Xa12. Caregiving is normally done by family members.</td>
</tr>
</tbody>
</table>

unit: people(%), n = 316
Commitment (4 items) was 0.874, Continuance Commitment (4 items) was 0.612, Normative Commitment (4 items) was 0.793. A total of 12 items of Cronbach's $\alpha$ coefficient was 0.856.

Also, the average scores ± standard deviation of total scores of Caregiving Commitment Scale (12 items, 12~47 point) were 31.1 ± 7.0 point. As for the gender of family caregiver's males have 32.9 ± 6.3 point, females have 30.5 ± 7.1 point. Family caregiver's in regard with the age was 22~48 years old (156 people) have 30.2 ± 6.3 point, and more than 49 years old (160 people) have 31.8 ± 7.6 point. And, relationship with frail elderly was spouses have 37.9 ± 5.9 point, sons have 31.8 ± 6.2 point, daughters-in-law have 27.9 ± 6.8 point, and daughters have 32.7 ± 5.7 point.

3. The relationship between Caregiving Commitment and the Will to Continue Caregiving

The causal analysis model results showed regarding goodness of fit on the data for a factor model in which Caregiving Commitment was the independent variable and the Will to Continue Caregiving was dependent variable, CFI = 0.959, RMSEA = 0.081. In each case, the path coefficient was at statistically significant levels. The rate of contribution of Caregiving Commitment was 66.1% (Figure 2).

In the statistical analysis results showed, we used structure equation modeling to study the goodness of fit on the data for a factor model in
n=316, CFI=0.959, RMSEA=0.081

Figure 2  The relationship between Caregiving Commitment and the Will to Continue Caregiving (standardized coefficients)

which the causal analysis model. In addition, the potentially stressor of Caregiving Commitment regarded frail elder’s Physical Function, Cognitive Function, Behavioral Disturbance was put in causal analysis model. Also, family caregiver’s gender, age was the antecedent variable of Caregiving Commitment. The causal analysis model results showed regarding goodness of fit on the data for a factor model was CFI=0.954, RMSEA=0.077. Caregiving Commitment’s three-factors show the fate of the hypothesized relation ships. Affective Commitment factor (standardization coefficient: 0.343, p<0.001) and Normative Commitment factor (standardization coefficient: 0.418, p<0.001) were influenced significant paths to the Will to Continue Caregiving factor. The rate of contribution of Caregiving Commitment to the Will to Continue Caregiving was 57.8%. However, Continue Commitment factor were not influenced significant paths to the Will to Continue Caregiving factor (Figure 3). In addition, the hypothesized paths antecedent factor was influenced to Caregiving Commitment’s three-factors, it shown by standardization coefficient from −0.294 to 0.267. The rate
of contribution of antecedent factor of Caregiving Commitment was 'Affective Commitment' 8.9%, 'Continuance Commitment' 6.3%, 'Normative Commitment' 18.5%.

IV Discussion
On this study, we regard the family caregiver's acknowledgement on a caregiving role as the concept 'Caregiving Commitment', aiming at gaining basic data on helping family caregivers for frail elderly. And the main purpose of this study is to reveal the relevance between its three-component conceptualization named Affective Commitment, Continuance Commitment, and Normative Commitment and the Will to Continue Caregiving. First, we have conducted the fact that Caregiving Commitment factor has a close correlation with the Will to Continue Caregiving. The perception that Caregiving Commitment relates with the Will to Continue Caregiving does not contradict the indication that the motivation to nurse or support elders is a vital factor directly effects on the Will to Continue Caregiving. At the same time, the result supports the Commitment Theory as well.  

Figure 3 The relationship between Caregiving Commitment and the Will to Continue Caregiving (standardized coefficients)

n=316, CFI=0.954, RMSEA=0.077
Moreover, on this study, it has been revealed that Affective Commitment factor and Normative Commitment factor has been statistically related with the Will to Continue Caregiving factor on an intentional revel. According to the former study, it has been reported that there is every possibility that satisfactory family relationship contributes to reduction of a burden on care giving\(^{24-26}\). This view suggests that the improvement of Affective Commitment related with quality of the relationship between family caregivers and frail elderly might effectively function on the burden of caregiving or the stability of the Will to Continue Caregiving. Moreover, family caregivers who highly perceive Normative Commitment tend to believe that the fundamental of caring is mutual cooperation especially derived from devotions\(^{27}\). Thus, we can assume that, as a result of this fact, their the Will to Continue Caregiving has been increased. According to former study, it has been indicated that a spirit of 'devotion' is an essential factor that directly effects on the Will to Continue Caregiving of family caregivers\(^{28}\), and it can be a factor to decrease their depression\(^{29}\). However, to promote family caregiving merely depending on those traditional virtues, on the other hand, might carry a high risk to increase burden of caring. Thus, it is required to systematically provide official home caring services or strengthen informal cooperators\(^{30}\) for family caregivers, such as their families, relatives, or people surrounding them. And also, the statistical and significant relationship between Continuance Commitment and the Will to Continue Caregiving has not been recognized. We can appreciate that this result has been also caused by Korean traditional virtues we have discussed above. Adding to the results above, in regard to the prior factor of Caregiving Commitment, it is indicated that females' Normative Commitments are higher than males if we focus on family caregivers' gender. On the former study, it has been reported that the definition of caregiving differs according to family caregivers' gender or family relationship and that males do not tend to have negative emotion on caregiving as much as females\(^{32}\). It has been assumed that the tendency is inferred to have a close linkage with the standards such as traditional patriarchal system based on Confucianism.

Second, there is a tendency that higher family caregivers' age is, higher Continuance Commitment and Normative Commitment are. And this is the same result as prior study. It might suggest that, as an indication on the study 'a national fact-finding of elders' actual lives and welfare need's' on 2004, this result reflects the different characteristics of the cognitive aspect of caregiving between generations. Furthermore, it tends that the lower frail elderly's Physical Function which tested as the potentially stressors as a causal analysis model are, the higher Affective Commitment of home caregivers are. However, the less frail elderly's Behavioral Disturbances are, the higher Affective Commitment and Normative Commitment are. Elders' mutual interactions of chronic disease or physical depression with emotional supports have a great influence on utilization of in-home nursing care facilities. Concretely, on the former study\(^{35}\) it has been reported that if there are various emotional supports by families or relatives a period to use home care facility services get short, even though elders have a high physical dependence. According to the results above, we can assume that family caregivers with low Affective Commitments caring physically-dependent elders extremely need home welfare services. On the cases, it is to be desired to develop not only the providence of hospitable home care services but the systematical support programs including provision of information for family caregivers' correct understanding of frail elderly' handicaps.

References


20) Mplus ver.2.01; Muthen & Muthen Web: www.StatModel.com/Support:Support@StatModel.com


23) Yuhko Tanaka: Tanshin-funin employees’ organiza-

要 旨：本研究では、要介護高齢者を介護する家族の在宅介護支援に資する基礎資料を得ることをねらいとして、家族介護者の介護役割に関する認知を‘介護コミットメント’概念で捉え、その下位概念を構成する3因子（感情的コミットメント、計算的コミットメント、規範的コミットメント）と介護継続意思との関連性を明らかにすることを目的とした。その結果、‘感情的コミットメント’因子と‘規範的コミットメント’因子が‘介護継続意思’因子に有意な影響を示していた。これは、コミットメント理論が否定できないことを示唆している。従って、要介護高齢者が在宅での介護を望み、また家族が介護を継続することを志向するような場合には、従来の在宅サービスに加えて、家族介護者の介護コミットメントに対して直接的に介入すること、あるいは介護コミットメントに関連する要因への介入を通して間接的に介入することの重要性が示唆された。

キーワード：要介護高齢者、介護、コミットメント

（2012年4月4日原稿受付）