An Analysis of Related Factors of Subjective Health and Life Satisfaction among Caregivers of Dementia Elderly People

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Abstract

In this research, we consider how caregivers of dementia elderly people can continue nursing care and lead to high-QOL by identifying factors related to subjective health and life satisfaction. Targeting, family carers of dementia elderly people, we requested a few questions about subjective health and life satisfaction among caregivers of dementia elderly people with a paper questionnaire or interview.

As a result, it was revealed that the older the main caregiver was, the more they worried about their health and physical conditions, and the more badly they feel they were off with their daily housework. And those were found to have a strong correlation between "life satisfaction" and "subjective health". The result indicated that increasing subjective health could be a factor to increase life satisfaction. Life satisfaction is a factor greatly involved with quality of life of dementia elderly people and their caregivers. Dementia elderly people and caregivers would be aging and become liable to injure their health more and more in the future. It was suggested that health care of both dementia elderly people and their caregivers is important to maintain and develop the quality of life of them.

Key Words: Subjective Health, Life Satisfaction, Dementia Elderly People, Caregivers

1. Introduction

Although the total population of Japan (estimated as of September 15. 2019.) declines by 260,000 compared to the previous year, elderly population of 65 and above came to 35,880,000, increasing by 320,000, compared to the previous year (35,560,000), the largest ever. The percentage of elderly in the total population accounts for 28.4%, and elderly people requiring care are increasing rapidly beyond expectation, as the aging in Japan is advancing¹⁾. For such as this rapid increase of elderly people requiring care, Long-Term Care Insurance System was enforced in 2000. It could be said that systems of care service for elderly people had changed significantly, as it allowed people to receive care services of non-family member with simpler procedures compared to before. However, we still have many problems, as greater-than-expected increasing of the number of elderly people requiring care services, a rise in nuclear family tendency, and a low birthrate progress. It is reported that the burden of nursing care of dementia elderly people is great above all ^{2) 3 4)}. The number of dementia elderly people increases due to further aging of society. In 2012, the number of dementia patients is 4,620,000, one in seven elderly people above 65 years old, it is estimated to be

approximately 7,000,000, one in five in 2025 5).

Changes and disorder in language, emotion, behavior, and personality would be found in dementia elderly people. These symptoms were complexly intertwined, and occur individually and unevenly. Furthermore, symptoms fluctuate widely in each individual, and patients could have other disease as well, which might make it difficult to certificate Needed Long-Term Care appropriately. Cases that it is difficult to receive enough services suitable for the symptoms could often be seen. Under these circumstances, this research would examine ways to support caregivers of dementia elderly people, focusing on factors related to their subjective health and life satisfaction, with the purpose of this research to enable dementia caregivers of elderly people to continue caring them at home and to have a high QOL.

Firstly, the following hypotheses were set up.

- Caregivers of dementia elderly people have factors lead to physical and mental stress in daily life, compared to ordinary family.
- 2. The factors of 1. prevent caregivers from continuing to care dementia elderly person at home.

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 Analyzing the factors related to the living conditions, subjective health and life satisfaction, and considering assistance measures could improve the QOL of the main caregivers.

Based on the recognition above, this research would analyze the factors related to the living conditions, subjective health and life satisfaction of the main caregivers and consider measures to support their lives.

<Definition of Terms>

Dementia: It is defined as "a medical condition that cognitive functioning which had once developed normally becomes worse gradually by acquired brain damage, interferes basic activities of daily or social life. It is observed as consciousness is not affected."

Dementia elderly people: It means elderly people over 65 years old who develop dementia.

2. Research methods

2.1 Subjects and methods

1) Selection of subjects

The subjects of this research are main caregivers of dementia elderly people living in prefectures of Hyogo, Nara, Mie, and Aichi.

The respondents are as follows.

(1) The questionnaire survey

Valid response was 138 (200 distributed, 69% response rate).

(2) The interview survey

(30 of the subjects of the questionnaire survey) Valid response was 30 (100% response rate).

The respondents (main caregivers) were: 51 daughters (37.0%), 25 wives (18.1%), 20 husbands (14.5%), 18 daughter-in-lows (13.0%), 11 sons (8.0%), 9 others (6.5%), 4 non-responses (2.9%).

2) Research methods

The questionnaire sheets were distributed to the subjects who had agreed to cooperate when we had confirmed each of caregiver families' intent through care managers and daycare staffs of dementia elderly people living home. The answered questionnaire sheets were collected through staffs again, after sealing them strictly. In the interview survey, the researchers had requested the family members of dementia elderly people among the facility users who had cooperated the questionnaire survey to conduct interview at their home or when the users visited the facility, through staffs with the permission of the facility director, in advance in leaving method. The survey

subjects and the researchers arranged time and place, and the survey was conducted. The place for the survey was rooms of the subjects' home or a room in the facility which could protect privacy. The survey time was kept within 30 minutes as long as possible. The time period for this research was a year from August 2015 to August 2016.

3) Basic attributes

The average age of the dementia elderly people was 84.89 years old (± 7.24 years old), 84 female (60.9%), 50 male (36.2%), 4 non-responses (2.9%), 138 people in total. The average age of the main caregivers was 66.33 years old (± 12.3 years old), 100 female (72.4%), 34 male (24.6%).

2.2 Survey items

As questions about basic attributes and living conditions, the questionnaire had items "family finances (circumstances)," "economic burden," period of care, and items "Are you worried about your physical conditions?" "How is your health?" and "Is your work (housework) going well?" as questions about subjective health, each in 5-point Likert scale. The question "Are you hurt anywhere in your body?" asked about painful area (multiple responses). About life satisfaction of the main caregivers of dementia elderly people, the item "How is your life satisfaction?" in 5-point Likert scale. The bigger number meant worse conditions in the questions in 5-point scale.

2.3 Methods of analysis

- Simple tabulation of each survey items and Spearman's Rank correlation analysis among the survey items would be done.
- 2) From the results above, examination of the factors related to subjective health of main caregivers would be done.
- 3) Statistical software SPSS would be used for data analysis.

2.4 Ethical considerations

From request to cooperate on the research, collection and analysis of data to publication of the result, the researchers strove to guarantee the basic rights below:

1) Right not to gain a profit

The subjects and candidates are promised that whether they would cooperate on this research or not would never affect services they would receive in the future, nor inflict any loss. They are also explained that it would be possible to decline after giving their consent and to refuse their cooperation temporarily.

Right to know the purpose and methods of the research
 The positions of the researchers, the methods and the

specific content of cooperation are explained to candidates for subjects sufficiently both in writing and orally. All the subjects are given the contacts of the researchers, and they would be informed clearly if any questions, opinion, or request to know the results of the research are proposed.

3) Right to self-determination

Subjects are emphasized that intent of the subject himself/herself to determine whether cooperate or not has the highest priority, and guarantee enough time if needed to make a decision.

4) Right of privacy, anonymity, and confidentiality

It was promised that the information obtained through this research would not used other than research purpose and would be maintained confidentiality.

The obtained information was coded and maintained anonymity not to identify an individual. Subjects are interviewed in a place their privacy was protected, and informed they needed not to talk what they would not like to. This research is already approved by ethical review of Naragakuen University.(approval number:27-005)

3. Results

3.1 Living conditions

1) About family finances (circumstances)

The respondents who answered "very badly off," "badly off" were 16.7%. It was found that a little less than 20% was not satisfied with their family budget. Answers "agree a little" and "agree" to "your economical burden is heavy" were 51.4%, which meant that more than approximately 50% of the respondents answered their economical burden

was heavy. (shown in Figure 1.)

2) Period of care

In this research, about the period of care, 1-10 years was 71.8%, more than 70%, 1-3 years and 3-10 years were about 30% each, almost the same percentage.

3.2 Subjective health and life satisfaction of main caregivers

1) The subjective health of main caregivers

(1) Are you worried about your physical conditions?

49 people answered "sometimes worried and feel anxious" (35.5%), 27 people answered "occurs to you like when you take medicine, but usually not worried" (19.6%), 23% answered "always worried and feel anxious" (16.7%), 17 people answered "almost forgotten" (12.3%), 15 people answered "not worried at all" (10.9%), 7 non-responses (5.1%). (shown in Figure 2.)

(2) How is your health?

46 people answered "some parts hurt, but acceptable" (33.3%), 39 people answered "some parts hurt or feel heavy, but not so serious that I need to go to the hospital" (28.3%), 35 people answered "sometimes hurts, but my health is not bad" (25.4%), 8 people answered "very sick and often lie down at home" (5.8%), 6 people answered "nothing hurts, I am in good health" (4.3%), 4 non-responses (2.9%). (shown in Figure 3.)

(3) Is your work (housework) going well?

78 people answered "not trouble others" (56.5%), 29 people answered "motivated, able to handle my work (housework) not badly" (21.0%), 13 people answered

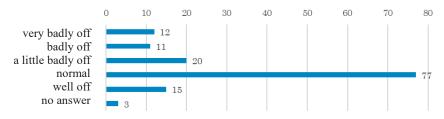


Figure 1. Family Finances (Circumstances)

nothing hurts, I am in good health.
sometimes hurts, but my health is not bad.
some parts hurt, but acceptable.
some parts hurt or feel heavy,
very sick and often lie down at home.
no answer

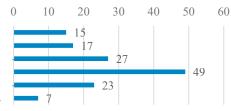


Figure 2. Are you worried about your physical

"not in good condition, makes many mistakes and frustrated, sometimes trouble others" (9.4%), 9 people answered "in pretty good condition" (6.5%), 4 people answered "in very bad condition, always trouble others" (2.9%), 5 non-responses (3.6%). (shown in Figure 4.)

(4) Are you hurt anywhere in your body? (multiple responses)

67 people answered "backache" (48.6%), 55 people answered "stiff shoulders" (39.9%), 37 people answered "pain in knees" (26.8%), 29 people answered "pain in neck" (21%), 29 people answered other pains (21%). From this result, backache was the largest number of the answers with approximately 50%, next stiff shoulders

with approximately 40%, pain in knees with approximately 30%. The other answers were such as stomach, teeth, postherpetic neuralgia, vision loss, pain in eyes, heart failure, high blood pressure, angina, disease with muscle stiffness (Perkinson's disease, able to walk), rheumatoid arthritis.

2) Life satisfaction of the main caregivers

45 people answered "satisfied a little" (32.6%), 43 people answered "dissatisfied a little" (31.2%), 20 people answered "no strong opinion" (14.5%), 13 people answered "dissatisfied" (9.4%), 10 people answered "satisfied" (7.2%), 7 non-responses (5.1%). (shown in Figure 5.)

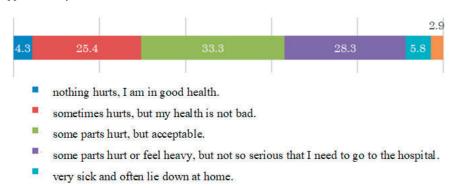


Figure 3. How is your health conditions?

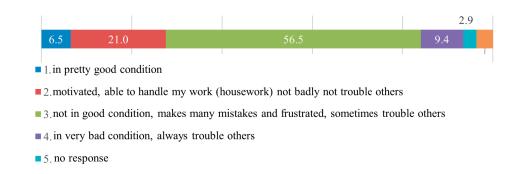


Figure 4. Is your housework going well?

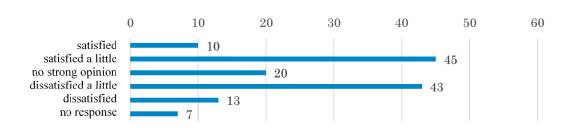


Figure 5. Are you satisfied with your life?

3.3 Analysis of factors related to subjective health and life satisfaction

1) Correlation among items related to subjective health

A correlation analysis was made to see the relation among the items related to subjective health.

As a result, it was revealed that the older the main

- caregiver was, the more they worried about their health and physical conditions, and the more badly they feel they were off with their daily housework. (shown in Table1.)
- Correlation between "life satisfaction" and "subjective health"

A correlation analysis was made to see the relation between "life satisfaction" and "subjective health." As a

Table 1. the correlation among items related to subjective health

	Age of the main caregiver	Are you worried about your physical conditions?	How is your health?	Is your work (housework) going well?	Median	SD
Age of the main caregiver	-	.335 **	.366**	.173	66.33	12.25
Are you worried about your physical conditions?		-	.636 **	.476 **	3.37	1.24
How is your health?			-	.550 **	3.06	0.99
Is your housework going well?				-	2.80	0.82

Table 2. the correlation between "life satisfaction" and "subjective health"

	Are you satisfied with	Are you worried	How is your	Is your housework	Median	SD	
	your life?	about your physical	health?	going well?			
		conditions?					
Are you satisfied with your	-	.486 **	.417 **	.482 **	3.03	1.18	
life?							
Are you worried about		-	.636 **	.476 **	3.37	1.24	
your physical conditions?							
How is your health?			-	.550 **	3.06	0.99	
Is your housework going				-	2.80	0.82	
well?							

Table 3. the correlation between "life satisfaction" and "family finances"

	How is your family finances?	Are you satisfied with your life?	Median	SD
How is your family finances ?	-	265 **	3.53	1.08
Are you satisfied with your life?		-	3.03	1.18

result, those were found to have a strong correlation between "life satisfaction" and "subjective health." (shown in Table 2.)

 Correlation between "life satisfaction" and "family finances"

A correlation analysis was made to see the relation between "life satisfaction" and "family finances."

As a result, those were found to have a strong correlation between "life satisfaction" and "family finances." (shown in Table 3.)

4. Discussion

4.1 Living conditions

As a result of the research about "family finances (circumstances)" and "economic burden" upon dementia elderly people, 16.7% people answered that their family finances were "difficult" or "very difficult." It was found in this research that a little less than 20% of people dissatisfied with their family finances. About "economic burden," with 51.4% of people answered "agreed a little" or "agreed," approximately more than 50% of people answered that it burden economically. Considering these results, it was conjectured that there are cases the Long-Term Care Insurance might not enough, depending on physical conditions of dementia elderly person.

According to elderly people in Japan seen from statistics by statistics topics in 20181), the top 10 expenditures consisting elements of consumption expenditure in 2017 of households including more than two people whose householder is 65 years and older (elderly household) are compared to ones of households whose householder is under 65 years old (non-elderly household), "insurance and medical expenses" of elderly household is the largest percentage, 1.69 times larger than non-elderly household. The details of the insurance and medical expenses shows that "ingestion products to maintain health" is 2.33 times larger than non-elderly household, which indicates high rate of expenditure spent for insurance and medical service in elderly household. "Insurance and medical expenses" could be factor of pressure of family finances in this research as well. Although this research did not enter into reason for their straitened circumstances in detail, it would be needed to interview about more detailed situations.

4.2 Period of care

In this research, 71.8% subjects answered that their period of care to be 1-10 years, more than 70%. Answers of 1-3 years and 3-10 years were almost the same percentage, approximately 30%

each. As average life expectancy after development of dementia was said to be approximately 10 years, period of caring dementia elderly people might be related to years from development of dementia.

4.3 Analysis of factors related to subjective health and the life satisfaction

It had been discovered in the previous studies of the authors that life satisfaction is strongly related to subjective health 7) 8) 9) 10). In this research, a correlation analysis was made in items that might affect "subjective health" and "life satisfaction." About "life satisfaction," relation among the three items "Are you worried about your physical conditions?" "How is your health?" and "Is your work (housework) going well?" was analyzed. The result shows a positive correlation between the two items of "the life satisfaction" and "physical condition." The result of this research also showed that more than 50% caregivers feel "the economical burden is heavy." "Family finances (circumstances)" is considered as a factor related to "life satisfaction," and a strong relation was observed as a result of the correlation analysis between them. From these facts, economical aspects and subjective health could be large factors affect life satisfaction. On the other hand, about factors related to life satisfaction, a correlation analysis was made among the items "age of the main caregiver," "Are you worried about your physical conditions?" "How is your health?" "Is your work (housework) going well?" "age of the main caregiver" had a positive correlation with "body condition" and "physical condition," and "body condition" had a positive correlation with "physical condition" and "daily work is going well." From the above, it implied that aging of caregivers affect subjective health of caregivers.

5. Research limits and problems

This research examined life conditions of dementia elderly people and the main caregivers, subjective health and life satisfaction of caregivers. Factors related to subjective health could be various. The concept of health and life is broad, and this research did not aimed at the whole factors of them. From such aspect, this research has limitation as well. In the future, it was needed to survey current situations over wider range, to reveal factors related to subjective health and life satisfaction from multiple perspectives, and to take supporting measures to increase the quality of life of dementia elderly people and their caregivers.

6. Conclusion

In this research, a high correlation was observed between life

satisfaction and subjective health. The result indicated that increasing subjective health could be a factor to increase life satisfaction. Life satisfaction is a factor greatly involved with quality of life of dementia elderly people and their caregivers. Dementia elderly people and caregivers would be aging and become liable to injure their health more and more in the future. It was suggested that health care of both dementia elderly people and their caregivers is important to maintain and develop the quality of life of them. It was also observed that life satisfaction had a high correlation with family finances. In this research, it was revealed that more than 50% caregivers feel "economical burden is heavy." Increasing of economical burden is estimated as the use of welfare service could increase, since aging of dementia elderly people and their caregivers would decrease their incomes and their physical functions, and increase the possibility to suffer from complication or other diseases from dementia. In using social welfare service, it was needed to take supporting measures with appropriate and effective use of social resources depending on each case.

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<Profit reciprocity>

No profit reciprocity exists in this study.

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