

## Translation and Testing of the Caregiving Appraisal Scale in Japanese

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The purpose was to report on the Japanese translation and testing of the subscales of caregivers burden and satisfaction of the Caregiving Appraisal Scale (CAS)<sup>1)</sup>. The burden subscale and the satisfaction subscale derived from the CAS were translated to Japanese using back translation and examined the translated Japanese versions to a sample of 91 caregivers of impaired mobility due to stroke. The results revealed that the translated instrument with slight modifications met acceptable levels of reliability and validity. This translation facilitates the accurate evaluation of caregiver appraisal in diverse cultures with similar problems. Suggestions for future refinements are provided.

Keywords: caregiving, burden, satisfaction, translation, Japanese

### Introduction

The ability to accurately measure caregiver appraisal (burden, satisfaction, impact) across diverse cultures is important for understanding the universal aspects of caregiver experiences. The caregiver appraisal instrument by Lawton and colleagues<sup>1)</sup> is based on stress and coping concept<sup>2)</sup>. In measuring the caregiver's perception of stress and burden, the instrument has been shown to be a valid and reliable instrument for measuring family caregiver appraisal and has been used in several studies in the past decade<sup>3)-7)</sup>.

The majority of persons with chronic health problems are cared for in the community in his/her home. Research has shown that the ability of a person with chronic health problems to remain in the home depends to a large extent on the availability of a primary family caregiver. At the same time, studies have shown that family caregivers encounter varying degrees of stress related to caregiving<sup>8)-13)</sup>.

Although caregiving has been examined in Japan,<sup>14)-16)</sup> much of the work has been of a narrative descriptive nature. For example, the study of Japanese daughter and daughter-in-law caregivers of dementia<sup>16)</sup> reveals that reasons for care continuation are strongly related to societal norms that honor caregiving as part of Japanese women's roles, rather than they have some commonality with caregiving satisfaction in previous findings in Western societies<sup>1), 17)-18)</sup>.

While the importance of a descriptive work is well known, it is also helpful to quantify the phenomena once they are well described. If a quantitative study in different culture uses the same scale in measuring the phenomena, cross-cultural comparison will be available in order to find similarities and differences. Understanding the perceptions of burden and satisfaction in caregivers in Asian countries is one step toward moving caregiving research forward.

This paper reports on the translation and testing of two subscales of the Caregiver Appraisal Scale (CAS) into Japanese. The concepts within the CAS were examined by a bilingual speaker. Through translations and back translations, whether operational indicators (items) reflect the conceptualization for individuals in Japanese culture was examined. The instrument was examined by native Japanese for cultural and semantic relevance (including colloquialness and familiarity of wording). Back translation was performed, and the original version and a back-translated version of the instrument were compared for content and semantic equivalence. The instrument was then tested on a sample of Japanese caregivers.

### The Caregiving Appraisal Scale (CAS)

The CAS was developed by Lawton and colleagues<sup>1)</sup> for measuring 47 items in five dimensions of caregiving: (a) subjective burden, (b) impact of caregiving, (c) mastery, (d) satisfaction, and (e) cognitive reappraisal. The CAS was modified by deleting three dimensions in the current study. The three dimensions which were deleted were (a) the cognitive reappraisal dimension because of its significant relationship with the caregiver's socioeducational characteristics; (b) the impact of caregiving because of its significant relationship with the subjective burden and the satisfaction dimensions; and (c) the mastery dimension because of its low level of validity<sup>1)</sup>. Therefore, the current study used 13 items in the burden domain and nine items in the satisfaction domain of the CAS. Each item was rated with a 5-point scale, which asks either the extent to which the statement is true or the caregiver agrees with the statement. Construct validity of the CAS was established through factor analysis by Lawton and colleagues<sup>1)</sup>. Regarding reliability, the reported test-retest reliability was established (.75-.78) over 16 weeks<sup>1)</sup>. Internal consistencies were established among the

caregivers of ventilator-dependent individuals<sup>6)</sup> and those of individuals with dementia<sup>1), 19)</sup>; burden .80-.87 and satisfaction .60-.71.

### Translation

The instrument was translated from English to Japanese using back-translation<sup>20), 21)</sup>. First, the instrument was independently translated from English to Japanese by two bilingual nurses. Then, cultural relevance of each item of the two translations of the instruments was compared, and an initial Japanese version was made.

The initial Japanese version was examined by three Japanese panel members who had no more than a twelfth grade education for colloquialness and familiarity of wording in order to keep its cross-cultural equivalence. Two of the women had arthritis or low back pain and one woman served as a caregiver for her mother with arthritis. After explaining the nature of their participation in this portion of the study, the definitions of caregiver and care-recipient were given along with suggested items during individual face-to-face interviews. This version was modified based on comments of panel members, resulting in a second version.

The second version of the instruments was back translated into English by a bilingual sociologist who had not read the original instruments. Then, the original and the back-translated instruments were evaluated for their content and semantic equivalence by a native English teacher. Because each item meaning of the original instrument and the back-translated instrument remained the same, the second version of the instrument was used as the final Japanese version. The final version was pilot-tested by one Japanese woman who had received 12 years formal education and served as a caregiver for her mother with arthritis, and found items of no difficulty encountered.

### Difficulties of Translation

Two major areas of difficulty were seen. Several items on the scale are difficult to translate from English to Japanese because of colloquialness and familiarity of wording. Because the wording of one item was unfamiliar for panel members, the item "You feel trapped when giving care" was translated into "You are unable to do anything except giving care."

Similarly, the pronoun "he/she" is very ambiguous to translate into Japanese. In general, the pronoun "he/she" is used between a young couple, such as a boyfriend-girlfriend couple, but not among family members. Therefore, "he/she" was translated to "your family member (the patient)." In addition, the pronoun "you" was deleted, because the pronouns "you" in Japanese is frequently omitted when questions are clearly asked to "you."

Since the term "self" is infrequently used in Japanese culture, the item "His/her old self is remembered in spite of

his/her current condition," was the most difficult item to translate. In Western culture, independence, self-reliance, and self-actualization are perceived as cultural values, and the concept of 'self' is described as an independent existence<sup>22)-25)</sup>. On the other hand, the concept of 'self' in Japanese culture is closely related to an interdependent relationship with the reciprocal exchanges between individuals<sup>24), 26)-27)</sup> dealing with "emotional and instrumental factors pertaining to the continuity of relationship, reciprocity of need fulfillment, and negotiation of fluctuating states of obligation, trust, and mutuality<sup>24)</sup>." Therefore, "His/her old self" was translated to "Your family member's (patient's) condition in the past.

### Overview of the Current study

**Subjects:** The CAS was administered to a sample of 91 caregivers in Japan. The caregiver was defined as a wife or daughter-in-law having the major responsibility for assisting activity of daily living (ADL) of the individual with impaired mobility, such as an inability to walk or an ability to walk with assistance and/or the use of a device, for at least two months due to stroke. The caregivers' ages ranged from 33 to 83 years with a mean age of 61.5 years (SD=9.6). Most caregivers were wives (n=80, 87.9%) living with the individuals for over 30 years (n=60, 72.6%). The average length of formal education they had received was 10.7 years (SD=2.2). The average length of providing care was 20.0 months (SD=15.2) and average hours of providing care was 15.1 hours (SD=9.8) per day. In the prior week, one-third of the caregivers (n=34, 37.3%) had 1-4 hours a day for themselves, with the majority (n=44, 48.4%) had no free time at all (Table 1).

**Setting:** The settings from which the caregivers of individuals with IM were recruited were a number of hospital-based clinics and visiting nurses associations in Tokyo, Kanagawa, Saitama, and Shizuoka Prefectures in Japan. Potential subjects were identified by Physicians or nurses at the study sites. If potential subjects were interested in participating, they were called by the interviewer (Nitta) and provided an explanation of the study and invited to make an appointment for a face-to-face interview. The instruments were administered in writing at the time of the interview. The majority of caregivers (n=54, 59.3%) were interviewed when they brought their care-recipients to the clinic. The remaining (n=37, 40.7%) was interviewed at home or at coffee shops as preferred by the caregiver.

**Procedure:** Approval was obtained through the Human Subjects Approval Committee at the University of California, Los Angeles prior to the initiation of the study. Subsequent approval was obtained in the various hospitals and associations in Japan. Local customs were observed. For example, the interviewer exchanged small gifts with the family caregivers and spent extra time with families in order

**Table 1. Sociodemographic Characteristics and Caregiving Situation (N=91)**

Variable		n	(%)	Mean (SD)	Range
Age				61.5 (9.6)	33-83
Relation	Wife	80	(87.9)		
	Daughter-in-law	11	(12.1)		
Years of co-residence (years)				37.8 (10.6)	1-59
	≤ 10	6	(6.6)		
	11-20	7	(7.7)		
	21-30	12	(13.2)		
	31-40	31	(34.1)		
	≥ 41	35	(38.5)		
Education (years)				10.7 (2.2)	6-17+
Length of caregiving (months)				20.0 (15.2)	
	≤ 12	40	(44.0)		
	13-24	24	(26.3)		
	25-36	13	(14.3)		
	37-48	14	(15.4)		
Hours of daily caregiving (hours)				15.1 (9.8)	
	1-8	37	(40.7)		
	9-16	8	(8.8)		
	17-24	46	(50.5)		
Hours of free time per day (hours)				1.8 (2.6)	0-9+
	0	44	(48.4)		
	1-4	34	(37.3)		
	5-8	10	(11.0)		
	≥ 9	3	(3.3)		

to socialize and partake of their hospitality. In instances where severe burden was being expressed by caregivers, the interviewer spent an additional 2-hours or so to provide them with emotional support and assist them in contacting social resources in the community.

## Results

In the current study, content validity was established by the panel members' judgment before collecting data, since there are no objective methods assures the content validity which is concerned with the sampling adequacy of the content area being measured <sup>28)</sup>. The panel members including a Japanese neurologist and a nurse manager who had been in rehabilitation and home health for over 10 years judged that no revision was needed on each item of the final version of the burden subscale and the satisfaction subscale.

No major problems were encountered in administering the CAS with the caregivers in the current study. Results of the items in the burden subscale will be described first, followed by a description of the items in the satisfaction scale. The burden subscores ranged from 15 to 43 with a mean of 28.4 and standard deviation of 6.5. The item subscale correlation ranged from 0.03 to 0.64. Internal consistency of the burden subscale is moderate with a standardized alpha of

0.74. Since improvement of a standardized alpha from 0.74 to 0.76 by deleting item number 5, 7, and 12 is small, the current study used all items without any deletion.

Item 5 states that "You feel embarrassed over his behavior." The majority of caregivers (n=65, 71.4%) never or seldom (n=15, 17.6%) felt it. Item 7 states that "You feel resentful of other relatives who could help but do not." In the result, most caregivers (n=73, 80.2%) never felt resentful in this sample. Item 12 states that "He/she seems to expect you to take care of him/her as if you were the only one he/she could depend on." Most caregivers agreed (n=45, 49.5%) or strongly agreed (n=26, 28.6%) the statement (Table 2).

The Satisfaction sub-scores ranged from 13 to 39 with a mean of 26.5 and a standard deviation of 5.6. The item subscale correlation ranged from 0.00 to 0.68. The low item sub-score correlation for this scale was numbers 2, 5, 8, and 9. A standardized alpha of 0.71 is moderate. Since improvement of a standardized alpha from 0.71 to 0.73 by deleting these items is small, the current study used all items.

Item 2 states "He/she shows real appreciation of what you do for him/her." A minority of caregivers usually (n=15, 16.5%) or always (n=6, 6.6%) recognized care recipient's appreciation. Item 5 states that "His/her old self is showing through in spite of his/her current condition." A small

**Table 2** Frequency Distributions of the Caregiver's Burden/Dissatisfaction on the CAS 1 (N=91)

Item	Never	Seldom	Some- times	Usually	Al-ways
	n (%)	n (%)	n (%)	n (%)	n (%)
1. You feel isolated and alone as the result of giving care.	49 (53.8)	18 (19.)	23 (25.3)	1 (1.1)	
2. You are very tired as a result of giving care.	36 (39.6)	17 (18.7)	26 (28.6)	10 (11.0)	2 (2.2)
3. You feel nervous or depressed when giving care.	35 (38.5)	16 (17.6)	30 (33.0)	8 (8.8)	2 (2.2)
4. You feel trapped when giving care.	50 (54.9)	12 (13.2)	18 (19.8)	4 (4.4)	7 (7.7)
5. You feel embarrassed over his/her behavior.	65 (71.4)	16 (17.6)	8 (8.8)	1 (1.1)	1 (1.1)
6. You feel angry when you are around him/her.	47 (51.6)	22 (24.2)	18 (19.8)	4 (4.4)	
7. You feel resentful of other relatives who could help but not.	73 (80.2)	9 (9.9)	9 (9.9)		
8. You wish you could just leave your caregiving to someone else.	62 (68.1)	17 (18.9)	10 (11.1)	1 (1.1)	
9. You really enjoy being with him/her.	27 (30.0)	11 (12.2)	34 (37.8)	9 (10.0)	9 (10.0)
10. He/she shows real appreciation of what you do for him/her.	18 (19.8)	16 (17.6)	36 (39.6)	15 (16.5)	6 (6.6)
11. His/her pleasure over little things gives you pleasure.	16 (17.6)	9 (9.9)	34 (37.4)	19 (20.9)	13 (14.3)
12. Giving care has made you feel closer to him/her.	34 (37.4)	5 (5.5)	23 (25.3)	15 (16.5)	14 (15.4)
13. His/her old self is showing through in spite of his/her current condition.	25 (27.5)	11 (12.1)	40 (44.0)	9 (9.9)	6 (6.6)

Note. Item 1-8 are the burden domain and item 9-13 are the satisfaction domain.

number of caregivers usually (n=9, 9.9%) or always (n=6, 6.6%) recognized it. Item 8 states that "The knowledge you are doing your best gets you through the rough times with him." A majority agreed (n=53, 58.2%) or strongly agreed (n=8, 8.8%) the statement. Item 9 states that "I do pretty much what I have to do, not what I want to do, in relation to him/her." Most caregivers agreed (n=33, 36.3%) or neither

agreed nor disagreed (n=35, 38.5%) the statement (Table 3).

In most cultures, women have been the traditional family caregivers. In Eastern cultures, wives and daughters-in-law are frequently involved in caregiving<sup>29)-30)</sup>, which is related to the fact that the eldest son traditionally has an obligation to reside with his parents and the right to inherit family property (Tsuya & Martin, 1992). Since wives (n=80) and daughters-

**Table 3 Frequency Distributions of the Caregiver's Burden/Dissatisfaction on the CAS 2 (N=91)**

Burden/Dissatisfaction	Strong. dis-agree (%)	Dis- agree (%)	Neith.d		Strong. agree (%)
			isag/ agree (%)	Agree (%)	
1. Your health has suffered because of the care you must give.	10 (11.0)	31 (34.1)	9 (9.9)	36 (39.6)	5 (5.5)
2. You will be unable to give care much longer.	8 (8.8)	44 (48.4)	19 (20.9)	17 (18.7)	3 (3.3)
3. You have lost control of your life since having to give care.	9 (9.9)	53 (58.2)	14 (15.4)	13 (14.3)	2 (2.2)
4. He/she seems to expect you to take care of him/her as if you were the only one he/she could depend on.	1 (1.1)	13 (14.3)	6 (6.6)	45 (49.5)	26 (28.6)
5. You don't have enough money to care for him/her in addition to the rest of your expenses.	14 (15.4)	41 (45.1)	13 (14.3)	19 (20.9)	4 (4.4)
6. It makes you happy to know that he/she is being cared for by his/her family.	2 (2.2)	8 (8.8)	22 (24.2)	52 (57.1)	7 (7.7)
7. You take care of him/her more because you want to than out of a sense of duty.	2 (2.2)	15 (16.5)	37 (40.7)	28 (30.8)	9 (9.9)
8. The knowledge you are doing your best gets you through the rough times with him/her.	1 (1.1)	17 (18.7)	11 (12.1)	53 (58.2)	8 (8.8)
9. I do pretty much what I have to do, not what I want to do, in relation to him/her.	1 (1.1)	13 (14.3)	35 (38.5)	33 (36.3)	9 (9.9)

Note. Item 1-5 are the burden domain and item 6-9 are the satisfaction domain

in-law (n=11) were selected as subjects of the current study based on social norms, the means of the burden subscale scores and the satisfaction subscale scores were compared between wives and daughters-in-law. The result reveals no significant difference in means of the burden scores ( $t=1.18$ ,  $p=.26$ ) and the satisfaction scores ( $t=-1.22$ ,  $p=.24$ ) between them.

### Discussion

The fact that most caregivers seldom or never feel embarrassed over the family member's behavior may reflect sampling in the current study and Japanese culture. Since a caregiver of a person with dementia as a care recipient was excluded in the current study, few care recipients in this sample demonstrated behaviors leading to their caregivers' feeling of embarrassment. The sample of caregivers of Japanese people with impaired mobility may have few opportunities to feel embarrassed over these people's behaviors in public. According to Wilhite<sup>32</sup>, social activities

among Japanese people with physical disabilities tend to be limited to those performed at home such as watching television or limited to social gathering only with other individuals with similar disabilities. This was difficult to express in the Japanese culture because of sympathy and sorrow evoked by helplessness associated with catastrophe such as old age, illness, and disability<sup>26</sup>.

The result that most caregivers never felt resentful of other relatives because of cultural values based on the Confucian ideology. Because cultural values in Japanese lead to family configuration which is one of self-development through the better progressive exercise of his/her family role<sup>33</sup>, he/she may accept his/her family role of caregiving and fulfill the role. The results in the current study may support findings from the previous qualitative study<sup>16</sup>) that Japanese female caregivers felt to be assigned an expected job, and would not be abandoned because of societal norms.

The fact that most caregivers agreed with the statement, "He/she seems to expect you to take care of him/her as if you

were the only one he/she could depend on," may be associated with societal norms. A relationship in Japanese culture is described as an interdependent relationship with the harmonious reciprocal exchanges<sup>24),27)</sup>. Traditionally, Japanese husbands accept being physically dependent on their wives at home.<sup>34)</sup> Therefore, agreement on the statement may reflect the degree of a harmonious relationship in Japanese culture, but may not reflect the degree of burden.

The result that a majority of the caregivers agreed the statement "The knowledge you are doing your best gets you through the rough times with him," may refer to this sample which included caregivers of persons with IM due to stroke. Since stroke is stabilized impairment after the initial period of recovery, a person with impairment and his/her caregiver usually gain knowledge through the course of illness. Therefore, gaining knowledge may not reflect the degree of satisfaction.

The fact that a minority of caregivers recognized care recipient's appreciation may reflect social norm of self-other interaction in Japanese. Japanese believe that the inner self is what makes communication possible and complete, instead of presentational interaction. It is not unusual that ordinary Japanese expect his/her family members to recognize his/her feeling such as appreciation without verbal expression.

A result that a small number of caregivers recognized their family members' old self was showing through in spite of his/her current condition may reflect Japanese culture. In Japanese culture, a majority of caregivers accepted current condition as a fact, because Japanese avoid unnecessary discomfort in a situation which could not be changed.<sup>34)</sup>

This pilot study described beginner's work on developing a Japanese translation of Lawton's caregiver burden subscale and the satisfaction subscale<sup>1)</sup>. Because Japanese and English are not linguistic relatives, most items could be translated with colloquially equivalence. Since the internal consistency was moderate, the results may indicate necessity of deleting a few items of the original subscale in order to develop the Japanese translation of it. Responses on item 7 and 12 of the burden sub-scores and item 2 and 5 of the satisfaction sub-scores may reflect social norms and values in Japanese which are culturally different from those in Western societies. Moreover, responses on item 5 of the burden sub-scores and item 8 and 9 of the satisfaction sub-scores may reflect sampling.

The current study has contributed to an understanding of caregiving in Japan. Specifically, the results provide nurses in health care with additional knowledge for assessment of female caregiver's level of burden and satisfaction in Japanese society. In order to conduct cross-cultural studies for gaining understanding universal aspects of caregiver experiences, the current study suggests the need for further refinement of validity of the CAS including the criterion-related validity using the Japanese version of valid and

reliable instruments for measuring the caregiver's burden and/or satisfaction.

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