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ORIGINAL ARTICLE

Characteristics of Male Caregivers Who Provide Skin Care to a Mother or Wife with Dementia

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ABSTRACT

This study aimed to confirm the characteristics of male caregivers who provide skin care to a mother or wife with dementia living at home.

Participants were 90 male caregivers of a female family member with dementia who was living at home. We recruited participants from among: 1) caregivers of inpatients at the Special Hospital for Dementia, 2) members of the Male Caregivers Association, and 3) members of the Dementia Family Association. Participants completed a self-administered questionnaire. The study period was from May 2017 to January 2018. We investigated the actual state of skin care and nursing care burden. We assessed care burden using the question "Do you have a physical, emotional, social, or financial care burden?" and the Zarit Caregiver Burden Scale-8. Participants' self-esteem was assessed using the Rosenberg Self Esteem Scale and the question "Do you have fun in your life?"

Caregivers who were the husband of the care recipient tended to be older. Those who were sons of the care recipient tended to be long-term caregivers, and their care recipient (mother) tended to be older. Care recipients who were wives received more skin care. Male caregivers that provided skin care had higher self-esteem than those that did not. We found that caregivers who were husbands wanted their wife to look beautiful or healthy. The key characteristic of male caregivers is treat oneself and mother or wife with dementia.

< Key-words >

male caregiver, dementia, skin care

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I. Introduction

Japan has experienced great changes in gender roles. The reasons for these changes are multi-faceted, and include changes in population and family structure, an increase in social progress among woman, and an increase in unmarried men¹⁾. Traditionally, women assumed the role of family caregiver. However, the number of male caregivers who provide care for a family member with dementia living at home doubled from 18.6% in 1999 to 34.0% in 2016²⁾. Male caregivers have been reported to experience some problems in providing care^{3,4)}, and tend to not complain and not seek counseling or support from friends⁵⁾. A paper reporting a study focused on murder⁶⁾ showed that home care was the third most common setting for murder, and most such murderers were husbands. In addition, 72.3% of persecutors of older adults were male caregivers and 74.3% of victims of abuse were female. This suggests that family caregiving is difficult for men, and they may not easily be able to speak up if they experience difficulty.

Provision of care to family members is important to allow continuation of home care and treatment. Support for caregivers includes consideration of their physical, mental, and social health. The greatest cause of care stress for male caregivers is reported to be high concern with masculinity; to optimize their health, male caregivers need a caregiving style that goes beyond traditional gender rules⁷⁾.

Male caregivers may have confusion around skin care for a care recipient who is their mother or wife, including knowing how to perform skin care and select cosmetics. An older adult's skin is delicate and characterized by a thin layer of subcutaneous fat⁸⁾. Therefore, knowing how to perform appropriate skin care suitable for this skin type without expert knowledge is important to improve an older adult's quality of life⁹⁾.

In meetings of family or male caregivers, the present researchers have noted that when a male caregiver's wife with dementia was wearing make-up, it gave the impression that the male caregiver loved their wife and wanted to continue caring for them. A potential benefit of providing skin care to a care recipient with dementia is that skin care appears to be related to quality of life in the context of long-term care. However, in Japan, the actual situation of male caregivers providing skin care has not been investigated, and no information is available regarding the effect of skin care provision on the caregiver role. This issue has not previously been studied, and this paper reports interesting results regarding this topic.

This study object was conducted to determine the characteristics of male caregivers who provide skin care to a mother or wife living at home with dementia.

Definition of this study of skin care: Concretely, hot towel, massage, cosmetic creams, milky lotions, skin lotions, cosmetic foundations and lipsticks are cited as the cosmetics are cited as the facial skin care.

II. Subjects and Methods

1. Participants

Participants were 90 male caregivers who were living at home with a female family member with dementia. We recruited participants from among: 1) caregivers of inpatients at the Special Hospital for Dementia, 2) members of the Male Caregivers Association, and 3) members of the Dementia Family Association. Participants completed a self-administered questionnaire. The study period was from May 2017 to January 2018.

2. Research methods

This study used a quantitative research design with data gathered using a self-administered questionnaire.

3. Measures

1) Basic male caregiver variables

We collected data on participants' relationship with the care recipient (mother or wife), age, employment status, economic status, care difficulty, nursing care hours, long-term care need (months), household composition, skin care frequency, and fun in daily life. Participants also completed the shortened version of the Zarit Caregivers Burden Interview (J-ZBI_8), and the Japanese version of the Rosenberg Self Esteem Scale (RSES-J). The J-ZBI_8 consists of eight items and is a care burden scale that was translated into Japanese by Arai et al. Its reliability and validity have been verified, and it has been used in many previous studies in Japan. Responses are on a five-point Likert-type scale: never = 0, rarely = 1, sometimes = 2, quite often = 3, and nearly always = 4. The RSES-J consists of 10 items, and the scale has been most commonly used in countries outside Japan. The reliability and validity of the RSES-J were established in 2007. The scale has four response options: Strongly agree = 0, Agree = 1, Disagree = 2, and Strongly disagree = 3.

2) Basic care recipient variables

We collected data on the care recipients' age, dementia diagnosis, and level of certification of long-term care need.

4. Data analyses

We first divided our sample into two groups (husband or son, provides skin care or not). These results were expressed as mean±standard deviation, with categorical variables reported as percentages. Student's t-tests, Mann-Whitney U-tests, or χ^2 tests were used to evaluate differences between the two groups. All statistical analyses were performed using the Japanese version of SPSS version 22.0 for Windows. The level of statistical significance was set at <0.05 (two-tailed).

5. Ethical approval

We obtained ethical approval for this study from the Ethics Committee of Fukuoka University (approval code: 2017M040). The study conformed to the provisions of the Declaration of Helsinki in 1995 (as revised in Tokyo in 2004). Consent was obtained from hospitals, the care facility, and the Men's Caregiver and Dementia Family Associations. The purpose of the study was explained orally and in writing to eligible participants. Participants were informed that their information and data would be treated confidentially. Return of a completed questionnaire was considered provision of consent to participate.

III. Results

1. Basic variables of male caregivers

There were significant differences between the male caregiver groups based on the relationship with the care recipient (mother or wife). In particular, there were significant differences in nursing care hours and long-term time care need (months) for male caregivers providing care for their wife. RSES-J scores were significantly higher among male caregivers who provided skin care compared with those that did not (Table 1).

Table 1 Male Caregivers contents. n=90

Variable			n	Results (%)
			Husband	55 (61.0)
			Son	35 (39.0)
Age	Husband	Mean age (SD)	75	SD 6.6
	Son		66	SD9.4
	mean age		72	SD8.9
Employment status	Husband	Employed	21	(38.1)
		Unemployed	34	(39.0)
	Son	Employed	15	(42.8)
		Unemployed	20	(39.0)
Economic conditions	Husband	sufficiently wealthy	26	(47.3)
		some hindrance to life	25	(45.6)
		hindrance to life	4	(7.2)
	Son	sufficiently wealthy	16	(45.7)
		some hindrance to life	18	(51.4)
		hindrance to life	1	(2.9)
I feel Care difficulty	in body		55	(60.4)
	in spiris		69	(75.8)
	society		35	(38.5)
	economy		29	(31.9)
Nursing care hours	Husband	The mean time spent providing nursing care.	4.0	SD1.2
	Son		3.4	SD1.4
Long time care need (month)	Husband	Mean month (SD)	48	SD 42.6
	Son		89	SD 6.2
J-ZBI_8*	Husband	Mean point score	10.5	SD 5.1
	Son		12.8	SD 1.2
RSES-J	Husband	mean point score (SD)	23.8	SD 4.6
	Son		24.9	SD 1.8

*Japanese version of the Zarit Caregiver Burden Scale -8 Student's-test *p<0.05

2. Basic variables of care recipients

There were significant differences in care recipient variables by relationship to the caregiver. Care recipients that were mothers tended to be older than those that were wives. For care recipients who were wives, the most common dementia diagnosis was Alzheimer's type, followed by Lewy body type, and frontotemporal lobar degeneration type. Among care recipients who were mothers, the most common dementia diagnosis was Alzheimer's type, followed by Lewy body type, and cerebrovascular type. The most common level of certification of long-term care need among care recipients who were wives was Care Need Level 3, with Levels 4 or 5 being most common among care recipients who were mothers (Table 2).

Table 2 Overview of the people with dementia

		Variable	Results (%)	
Caregiver's relation to the patient .	Wife	mean age	73 SD 6.6	
	Mother	mean age	89 SD 6.2	
Diagnosis of dementia	Wife	Alzheimer's type	28 (50.9)	
		Lewy bodies	18 (32.7)	
		Frontotemporal lobar degeneration	6 (10.9)	
		Cerebrovascular type	3 (5.5)	
	Mother	Alzheimer's type	19 (54.3)	
		Lewy bodies	10 (28.6)	
		Frontotemporal lobar degeneration	1 (2.8)	
		Cerebrovascular type	5 (14.3)	
	Level of certification of long-term care need	Wife	Care support 1 or 2	3 (5.5)
			Care need 1	6 (10.9)
Care need 2			5 (9.1)	
Care need 3			13 (23.6)	
Care need 4			8 (14.5)	
Care need 5			16 (29.1)	
Not applicable or unspecified			4 (7.3)	
Mother		Care support 1 or 2	3 (8.5)	
		Care need 1	0 0.0	
		Care need 2	4 (11.4)	
		Care need 3	7 (20.0)	
		Care need 4	8 (22.9)	
		Care need 5	8 (22.9)	
Not applicable or unspecified	5 (14.3)			

Note. Care support is a less intensive level of support required than care need.

The numbers refer to increasing levels of care required.

Student's-test * $p < 0.05$

3. Provision of skin care and skin care frequency

In total, 45 (49.5%) of male caregivers provided skin care to their care recipient. There were differences in skin care provision and frequency of skin care provided to mothers and wives. For wives, the most common skin care frequency was every day (53%), followed by when going out (29.1%). For mothers, the most common skin care frequency was when going out (53%), followed by every day (46.0%) (Table 3).

Table 3 : Actual state of skin care.

Variable		n	Results (%)
Relationship with the caregiver.			
I provide skin care to a wife or mother.	husband	34	(62.0)
	son	11	(32.0)
			**
Skin care of frequency		rank	
	husband	1	every day (53.0)
		3	some times a week. (18.9)
		2	it goes out (29.1)
	son	2	every day (36.0)
		3	some times a week. (18.0)
		1	it goes out (46.0)
			**

Mann-Whitney U test ** : P < 0.01

4. Characteristics of male caregivers who provided skin care

The group of male caregivers that provided skin care reported a lower care difficulty than those who did not provide skin care. In addition, the RSES-J scores in the group that provided skin care were higher than in the group that did not provide skin care (Table 4).

Table 4. male caregiver's characteristics of provide skin care to a wife or mother

Variable	I provide skin care to a wife or mother.		X2		
	Yes (%)	No (%)			
I have care difficulty in my body.	Yes	24(26.4)	33(36.3)	p<0.001	
	No	12(13.2)	15(16.5)		
I have care difficulty in my spirits.	Yes	27(29.7)	44(48.4)	p<0.001	
	No	9(9.9)	4(4.4)		
I have care difficulty society.	Yes	16(17.6)	20(22.0)	p<0.001	
	No	20(22.0)	28(30.8)		
I have care difficulty economy.	Yes	13(14.3)	17(18.7)	p<0.001	
	No	23(25.3)	31(34.1)		
I have fun in my life.	Yes	35(38.5)	41(45.1)	p<0.001	
	No	1(1.1)	3(3.3)		
		mean (SD)	Z-Value		
J-ZBI 8		38.99(8.7)	45.14(7.4)	-1.145	n.s.
RSES-J		50.63(11.1)	35.39(12.6)	-2.894	*

X2: individual variable of comparison between skin care and not.

J-ZBI: Japanese version of the Zarit Caregiver Burden Scale -8

RSES-J: Japanese version of the Rosenberg Self-Esteem Scale.

*: p < 0.05

n.s.: not significant

IV. Discussion

1. Participant characteristics

This study investigated care for older adults by older adults, with many participants and care recipients being old-old. We found that on average, caregivers that were husbands had cared for a younger wife for more than 4 years and sons had cared for a mother for more than 7 years. When male caregivers who were sons began providing home care, many were in their late fifties.

In Japan, the mandatory retirement ages are 60 years (79.3%) and 65 years (16.4%)¹⁴. Therefore, male caregivers who were sons of their care recipient most likely began caregiving for their mother while continuing to work. However, retirement at age 60 years is decreasing, whereas retirement at ≥ 65 years is increasing¹⁴. This may indicate an overall increasing retirement age. To achieve an ageless society in which older adults can play active roles, it is important to enhance and strengthen employment opportunities/assistance and re-employment support for older adults. However, realization of an ageless society in which older adults can play active roles depends on family caregivers. An investigation in 2012 suggested that resignations and changes of job by family caregivers had increased¹⁵. Male caregivers who provide care for a parent may be more affected by factors such as resignation and changes of job to allow them to provide care for their family member. It may be necessary to direct attention to male caregivers (especially those who are sons of their care recipient) to determine if they have problems providing care while continuing to work. In Japan, the average age of male caregivers providing care for a parent is 40–60 years, meaning that there is a high probability that they are employed¹⁶. Perpetrators of abuse of older adult associated with home care are often male (70%), and in $\geq 40\%$ cases were the care recipient's son⁹. If a caregiver loses their job, they are at increased risk for becoming poor; maintenance of good health is indispensable to social participation and poverty may affect health status, which in turn may form a vicious cycle.¹⁷ Collaboration with public health policies is necessary to support male caregivers who are providing care for a parent to continue to work while providing home care.

2. Effect of provision of skin care

Our findings suggested that care recipients who were wives received more skin care than those who were mothers. An effect of provision of make-up and skin care is improving the care recipient's health; for example, make-up means the care recipient seems to be younger in both appearance and attitude, as there is a correlation between appearance and visceral function¹⁸. Therefore, make-up is an important part of skin care. This suggests that provision of skin care is an expression of a husband wanting their wife with dementia to look beautiful and healthy. Furthermore, skin care may enhance social communication^{19,20} and relationships⁹. Caregivers whose care recipient was their wife

reported more communication with friends and social relationships than those whose care recipient was their mother.

3. Characteristics of male caregivers who provide skin care

An effect of applying make-up is stabilizing brain waves, which provides oscillation control for sensory neurons²¹). This may help to reduce symptoms of dementia by regaining function of nerves and emotions. A person with dementia may respond to chemical stimuli from points on their skin or mucosal membrane that are sensitive to enhancing memory and cerebral function. Therefore, application of make-up or skincare may also help to reduce the symptoms of dementia, and the associated stimuli may help to relieve anxiety and maintain a stable mental condition²²). A cause of abuse by caregiver that a cause of symptom of dementia from an unsettled state of cerebral function and abuse to reduce a stress reaction circulates through a stress reaction and evil.²³) Therefore, by reducing symptoms of dementia, skin care may help to reduce nursing care burden for male caregivers.

Although we found no significant differences in care difficulty between caregivers who provided skincare and those that did not, there were significant differences in reported care difficulty. We cannot adequately explain how male caregivers experience care difficulty and care burden. However, according Pearlín's stress coping model, the care burden scale relates to care stressors and care difficulty scale to care resources. This suggests that male caregivers who provide skin care to a mother or wife with dementia have more care resources than those who do not provide skin care. In addition, male caregivers who provided skin care to a mother or wife with dementia had higher self-esteem than those who did not provide skin care. A person has high self-esteem is mental who is unattractive either in appearance or character and attended kindly and think of others¹³). Therefore, male caregivers who provide skin care to a care recipient who is their mother or wife think kindly of the care recipient.

V. Conclusion

Male caregivers who provide skin care to a mother or wife with dementia tend to have high self-esteem, abundant care resources, and think kindly of their care recipient. In addition, application of make-up and provision of skin care may reduce symptoms of dementia and help to resolve nursing care difficulty for male caregivers.

VI. Study Limitations

A limitation of this study was the small sample size. A comparative study including other variables will be required to further investigate the topic; for example, male caregivers' employment situation and experience of long-term nursing care.

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