

Original Article

Burnout and Characteristics of Mental Health of Caregivers of Elderly Dementia Patients

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Abstract

Objective: The purpose of this study was to clarify burnout and the characteristics of mental health of caregivers of elderly dementia patients, which have been little studied.

Methods: The subjects of this study were 107 caregivers who were engaged in the care of dementia patients at 12 facilities in northern Kyushu. We examined age, sex, status of nursing-care related qualifications, kinds of nursing care-related qualifications, years of working experience, physical health (Present state of health and Presence of perceived ill health), status at work (Problems at work and Job stress) and satisfaction with life using the Maslach Burnout Inventory (MBI) and WHO Subjective Well-Being Inventory (SUBI). The period of survey was five months, between June 1 and October 31, 2006.

Results: The most severe level of burnout was found in 27.1% of the subjects. When subjects were classified into the burnout and nonburnout groups, the burnout group represented 53.3% of the subjects. In a comparison of the scores of the SUBI subscales between the burnout and nonburnout group, significant differences were observed in almost all subscales without “Deficiency in Social Contacts.”

Conclusion: This study clarified that self-care of physical and mental health, family support and social support were very important in maintaining mental health and preventing burnout in caregivers of dementia patients. Improvement of working conditions was considered particularly important for social support.

Key words: dementia, caregiver, mental health, burnout

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Introduction

The elderly population continues to increase in Japan. In 2008, average life expectancy reached 86.1 years for women

and 79.3 years for men¹⁾, with the population of people at the age of 65 years or over representing 22.1% of the population. Factors that lead elderly people to a status requiring nursing care include cerebrovascular diseases, bone fractures and dementia. In senile dementing illnesses typified by Alzheimer’s disease, impairment of cognitive functions including memory, orientation and judgment is seen as its core symptoms^{2–5)}. Among them, behavioral disturbances including delusion, insomnia and wandering, as well as impairment of activities of daily living including eating and toileting, impose a heavy burden on caregivers⁶⁾. These symptoms pose great stresses to caregivers and bring about such mental symptoms as apathy and impaired judgment or physical symptoms such as insomnia and malaise in them. Group homes were established in 2000 as facilities to provide care specifically for demented elderly under the Long-Term Care Insurance System. At group homes, one caregiver is allocated for three patients. Thus, there are concerns that caregivers might develop physical and mental health problems including stresses and burnout due to overwork⁷⁾.

Stress is a state of reaction to mitigate the harmful effects coming from body strain caused by harmful abnormal stimuli like mental tension applied to the body. In short, it is a physical and mental reaction caused by external stimuli. The job stresses dealt with in this study include physical or mental fatigues caused through difficulty in responding to the needs of dementia patients, interpersonal problems or directly from the burdens of care.

There are few previous studies on the burnout and mental health of caregivers at group homes^{8, 9)}. Also, there are almost no studies that have clarified the relationship between burnout and deteriorated mental health. Therefore, we aimed at clarifying the burnout and characteristics of mental health of caregivers of elderly dementia patients in this study.

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Materials and Methods

Subjects

This study focused on 121 professional caregivers of dementia patients employed at 12 facilities in northern Kyushu (Fukuoka, Saga and Nagasaki Prefectures). Responses were received from 110 persons (collection rate 90.9%), of which there were 107 valid responses (valid response rate 97.2%). The period of survey was five months, between June 1 and October 31, 2006.

Procedures

This survey included such basic attributes as age, sex, status of nursing care-related qualifications, the kind of the nursing care-related qualification if any and years of working experience. In addition, we asked the respondents to choose between (healthy and not healthy) for “Present state of health” and between (satisfied and dissatisfied) for “Satisfaction with life.” Also, we asked the respondents to choose between two choices regarding “Perceived ill health” (some or none), “Job stress” (some or none), “Problems at work” (some or none) and “Burden in care” (some or none). We also obtained responses using the Subjective Well-Being Inventory^{10, 11)} Japanese version^{12, 13)} (hereinafter referred to as SUBI) developed by the World Health Organization (WHO) and the Maslach Burnout Inventory Japanese version^{14, 15)} (hereinafter referred to as MBI). Both the SUBI and MBI are already well-established scales that have been verified in terms of reliability and validity^{16, 17)}. We distributed these together with the self-administered questionnaire to the subjects.

Instruments

1) MBI scale

Maslach and Jackson¹⁸⁾ defined burnout as follows. “Burnout is a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who do people-oriented work of some kind.” Then, they developed the Maslach Burnout Inventory (MBI)¹⁹⁾, which consists of 3 major subordinate concepts, “Emotional exhaustion” (hereinafter EE), “Depersonalization” (DP) and “Personal accomplishment” (PA). The third version of MBI describes that burnout is EE caused as a result of a daily excessive requirement of emotional resources on the job and that DP and PA are secondary results of this “exhaustive state”²⁰⁾. MBI is a self-completed scaled questionnaire. Subjects are asked to choose one of 5 scores from 1 to 5, with 1 representing never, 2 representing rarely, 3 representing sometimes, 4 representing often and 5 representing always, depending on the frequency of the 17 items for emotions in the last 6 months. These items

are categorized into 3 subscales, EE, DP and PA, and scores are totaled by subcategory. Higher scores indicate severer burnout. Cronbach’s coefficient α for this survey was 0.77, showing good internal reliability.

2) SUBI

According to SUBI, there are three factors in mental health, that is, (i) joy, happiness and excitement; (ii) sorrow, anxiety, depression and boredom; and (iii) satisfaction and cognition of the wish to achieve expected status. SUBI¹¹⁾ is composed of two scales, mental health degree (MHD) and mental fatigue degree (MFD), which constitute a subjective sense of well-being. It is a self-administered questionnaire that comprehensively evaluates mental life including mental health, human relations and feeling of physical health. In this study, we used the subjective well-being scale developed by Sell and Nagpal¹⁶⁾, which was translated into Japanese and standardized by Ono and Yoshimura *et al.*¹³⁾, as the SUBI. SUBI has 40 question items, and respondents select a response for each from one of the following 3 scores: very much, to extent and not so much. The points were totaled for the 19 items of MHD and 21 items of MFD. For both categories, higher scores indicate better mental health status.

The subscales include (i) General well-being positive affect, (ii) Expectation-achievement congruence, (iii) Confidence in coping, (iv) Transcendence, (v) Family group support, (vi) Social support, (vii) Primary group concern, (viii) Inadequate mental mastery, (ix) Perceived ill health, (x) Deficiency in social contacts and (xi) General well-being negative affect. Regarding subscales, higher scores indicate a better sense of well-being. Cronbach’s coefficient α for this survey was 0.74, showing good internal reliability.

Statistical analyses

Internal reliability of MBI and SUBI were evaluated using Cronbach’s coefficient α .

Regarding MBI, Golembiewski *et al.* proposed the eight-phase model as the worsening process of burnout using three subscales, EE, DP and PA. For each of these subscales, the score of each subject was judged as high or low in reference to the median score. Then, by the combination of the high and low scores for these three subscales, subjects were categorized into eight phases from I (mild) to VIII (severe)^{21–23)}. We then classified the subjects into the burnout (phases V to VIII) and nonburnout groups (phases I to IV).

The scores for the 11 subscales of SUBI were compared between the burnout group and nonburnout group using the t-test.

The correlations between the six items of “Present state of health” (healthy or not healthy), “Perceived ill health” (some or none), “Job stress” (some or none), “Satisfaction

Table 1 Characteristics of subjects

	Men (n=15)	Women (n=92)	Total (n=107)
Age (mean \pm SD)	35.7 \pm 12.5	46.0 \pm 12.6	44.6 \pm 13.0
Qualifications ^{a)}			
With qualifications	11 (10.3)	75 (70.1)	86 (80.4)
Without qualification	4 (3.7)	17 (15.9)	21 (19.6)
Qualifications ^{a)} (multiple answers allowed)			
Regular nurse	0 (0.0)	2 (2.1)	2 (1.9)
Practical nurse	0 (0.0)	3 (3.2)	3 (2.8)
Care worker	4 (26.6)	27 (29.3)	31 (28.9)
Certified social worker	0 (0.0)	2 (2.1)	1 (0.9)
Home helper	7 (46.7)	52 (56.5)	59 (55.1)
Care manager	0 (0.0)	8 (8.6)	8 (7.4)
Welfare living environment coordinator	0 (0.0)	1 (1.0)	1 (0.9)
Long-term care prevention advisor	0 (0.0)	1 (1.0)	1 (0.9)
No qualification	4 (26.6)	17 (15.9)	21 (19.6)
No response	0 (0.0)	1 (1.0)	1 (0.9)
Years of Work Experience ^{a)}			
Less than 1 year	2 (13.3)	13 (14.1)	15 (14.0)
1 year or more but less than 3 years	5 (33.4)	35 (38.1)	40 (37.3)
3 years or more but less than 5 years	5 (33.4)	24 (26.1)	29 (27.1)
5 years or more	1 (6.8)	20 (21.7)	21 (19.7)
No response	2 (13.3)	0 (0.0)	2 (1.9)

SD: Standard deviation.

^{a)}Values show the numbers of respondents. Percentages are shown in parentheses.

with life” (satisfied or dissatisfied), “Problems at work” (some or none), “Burden in care” (some or none) and burnout status (the burnout group and nonburnout group) were evaluated using the chi-square test.

Ethics

The aims of the surveys were surveillance and protection of caregivers against burnout and not research. Participation was optional. Written informed consent was obtained from all subjects before the study.

Results

The basic attributes of the subjects are shown in Table 1. The breakdown of the 107 subjects (average age 44.6 years \pm SD 13.0) was 15 men (average age 35.7 years \pm SD 12.5) and 92 women (average age 46.0 years \pm SD 12.6).

The eight phases of Golembiewski's²¹⁻²³⁾ model based on MBI are shown in Table 2. The scores for EE, DP and PA were judged as high or low in reference to the median value, and by the combination of the high and low scores of these three subscales, subjects were categorized into one of the

eight phases from I to VIII. It is said that burnout gradually worsens in order from I to VIII. In this study, phase VIII, where burnout is severest, represented the greatest share of subjects, 27.1%, and was followed by phase VI, which accounted for 18.7% of the subjects. When the subjects were classified into the burnout (phases V-VIII) and nonburnout groups (phases I-VI), more than half of the subjects were classified into the burnout group (57 subjects in the burnout group, 53.3%, and 50 subjects in the nonburnout group, 46.7%).

The results of the t-test on the correlation between the 11 SUBI subscales and the burnout status (burnout or nonburnout group) are shown in Table 3. The scores of the nonburnout group were significantly higher for “General Well-Being Positive Affect” ($p<0.001$), “Expectation- Achievement Congruence” ($p<0.05$), “Confidence in Coping” ($p<0.05$), “Transcendence” ($p<0.05$), “Family Group Support” ($p<0.01$), “Social Support” ($p<0.05$), “Primary Group Concern” ($p<0.01$), “Inadequate Mental Mastery” ($p<0.01$), “Perceived Ill Health” ($p<0.001$) and “General Well-Being Negative Affect” ($p<0.01$) among the 11 subscales.

The results of the chi-square test on the correlation be-

Table 2 Eight phases of Golembiewski's model based on Maslach Burnout Inventory (Japanese version)

	Nonburnout				Burnout			
	I	II	III	IV	V	VI	VII	VIII
Depersonalization ¹⁾	low	high	low	high	low	high	low	high
Personal Accomplishment of Decrease ²⁾	low	low	high	high	low	low	high	high
Emotional Exhaustion ³⁾	low	low	low	low	high	high	high	high
n (%)	18 (16.8)	6 (5.6)	15 (14.0)	11 (10.3)	2 (1.9)	20 (18.7)	6 (5.6)	29 (27.1)

Values in the bottom row are the numbers of subjects. Percentages are shown in parentheses.

¹⁾High ≥ 1.3 (median) Low < 1.3 (median). ²⁾High ≥ 3.2 (median) Low < 3.2 (median). ³⁾High ≥ 2.2 (median) Low < 2.2 (median). Seriousness of burnout progressively increases from Stage I to Stage VIII.

Table 3 Comparison of average scores for the 11 SUBI subscales between the burnout and nonburnout groups

	Burnout		Nonburnout		<i>p</i>
	Mean	SD	Mean	SD	
SUBI: Mental health degree	33.4	5.64	37.7	6.02	<0.001**
General Well-Being Positive Affect	5.2	1.37	6.1	1.14	<0.001**
Expectation-Achievement Congruence	4.8	1.15	5.3	1.27	0.018*
Confidence in Coping	5.3	1.20	5.8	1.47	0.043*
Transcendence	5.4	1.20	5.9	1.28	0.037*
Family Group Support	6.0	1.41	6.8	1.08	0.001**
Social Support	5.8	1.59	5.9	1.56	0.085
SUBI: Mental fatigue degree	46.1	6.32	51.9	5.49	<0.001**
Primary Group Concern	6.7	1.12	7.8	1.18	0.001**
Inadequate Mental Mastery	15.3	2.75	16.8	2.60	0.005**
Perceived Ill Health	14.0	2.15	15.6	1.66	<0.001**
Deficiency in Social Contacts	7.2	1.36	7.7	0.98	0.560
General Well-Being Negative Affect	7.0	1.17	7.7	1.10	0.001**

The two groups were compared using the t-test. SUBI: Subjective Well-Being Inventory (Japanese version). SD: Standard deviation. * and **: $p < 0.05$ and $p < 0.01$, respectively.

tween "Present state of health," "Perceived ill health," "Job stress," "Satisfaction with life," "Problems at work" and "Burden in care" and the burnout status (burnout or non-burnout group) are shown in Table 4. Significant differences were observed for "Job stress" ($p < 0.01$), "Satisfaction with life" ($p < 0.01$) and "Problems at work" ($p < 0.05$).

Discussion

The purpose of this study was to clarify the burnout and characteristics of mental health of caregivers of elderly dementia patients. As the main result, 27.1% of the subjects had the most severe level of burnout. According to previous studies^{24,25)}, the burnout rates of nurses were between 27 and 31% and those rates are similar to that in our study.

When subjects were classified into the burnout and non-

burnout groups, the burnout group represented 53.3% of the subjects.

The burnout group scored significantly lower in ten out of the 11 subscales of SUBI. Mental health consists of factors including positive and negative affects. Ono¹²⁾ clarified the importance of focusing on positive affect. Even under stress situations where we feel strong negative affects, there is a possibility that we can live a fulfilling daily life if we can feel positive affects. The sense of achievement or self-confidence in the MHD category can be said to be very important in performing one's job. Support from close family members and social assistance are crucial in supporting daily life of workers and also have a big influence on their daily lives.

More than 80% of the subjects in the burnout group felt job stress, which was significantly higher than the percent-

Table 4 Correlations between burnout status and responses to the six question items

	Present state of health n=107 ($\chi^2=0.07$)		Perceived ill health n=106 ($\chi^2=4.37$)		Job stress** n=106 ($\chi^2=16.94$)	
	Healthy	Not Healthy	Some	None	Some	None
Burnout	48 (84.2%)	9 (15.8%)	36 (63.2%)	21 (36.8%)	47 (83.9%)	9 (16.1%)
Nonburnout	43 (86.0%)	7 (14.0%)	21 (42.9%)	28 (57.1%)	23 (46.0%)	27 (54.0%)

	Satisfaction with life** n=107 ($\chi^2=13.79$)		Problems at work* n=107 ($\chi^2=9.93$)		Burden in care n=104 ($\chi^2=1.78$)	
	Satisfied	Dissatisfied	Some	None	Some	None
Burnout	27 (47.4%)	30 (52.6%)	51 (89.5%)	6 (10.5%)	33 (60.0%)	22 (40.0%)
Nonburnout	41 (82.0%)	9 (18.0%)	32 (64.0%)	18 (36.0%)	23 (46.9%)	26 (53.1%)

Correlations were evaluated using the chi-square test for independence.

*Represents significant differences at $p<0.05$. **Represents significant differences at $p<0.01$.

age in the nonburnout group. This is consistent with a previous study conducted in people engaged in interpersonal service-related jobs²⁶). The mental health statuses of the subjects of this study, who were caregivers of elderly dementia patients, were suggested to be not favorable due to job stresses. It has been reported that caregivers of elderly dementia patients have higher stresses and lower mental health compared with caregivers of patients other than dementia patients²⁷). Excessive work and responsibility constitute stresses and lead to lower job quality, delinquency or accidents^{28, 29}) and would increase the chance of disease or impairment of caregivers themselves in the long run. It is important to take countermeasures against job stresses to prevent deterioration of mental health and burnout of caregivers in the future. In addition, we observed significant differences in "Satisfaction with life" and "Problems at work" between the burnout and nonburnout groups. In the burnout group, 52.6% of the subjects responded with dissatisfied for the question regarding "Satisfaction with life," and 89.5% of the subjects had some "Problems at work." Though significant differences were not observed, 60.0% of the subjects in the burnout group had some "Burden in care," and 63.2% of the subjects had some "Perceived ill health." As a result of trouble with work and a sense of burden in the care for demented elderly, caregivers feel greater burden in performing a job that imposes great responsibility to appropriately judge the mental and physical status of dementia patients and provide care to dementia patients with whom relationships are difficult³⁰). Caregivers may not be able to provide cares as they want because they have less knowledge and skills compared with nurses. There is a possibility that they

will gradually feel a heavier burden in their daily work, have trouble related to not being able to solve problems in care and have gradually stronger stresses. It is inferred that these factors bring about burnout of caregivers and make it difficult for them to feel satisfaction with life²⁶).

This study only dealt with comparison among caregivers working at group homes that are facilities for dementia patients and did not cover comparison with caregivers of facilities that do not provide care for dementia patients. Thus, analysis has to be performed with caution. In the future, studies with a larger number of institutions and subjects and comparative studies with caregivers of patients without dementia are required. Also, detailed evaluation on "Job stress," "Family group support" and "Problems at work" are required.

Maintenance of mental and physical health of caregivers and preventing burnout leads to provision of better care for elderly dementia patients³¹). Our study clarified that burnout and 10 SUBI subscale factors ("General Well-Being Positive Affect," "Expectation-Achievement Congruence," "Confidence in Coping," "Transcendence," "Family Group Support," "Social Support," "Primary Group Concern," "Inadequate Mental Mastery," "Perceived Ill Health" and "General Well-Being Negative Affect") were related to each other, but that only "Deficiency in Social Contacts" was not related with burnout.

In order to maintain mental health, "Self care of physical and mental health," "Family group support" and "Social support" were considered very important. Regarding the work environment, which is the mainstay of "Social support," discretion regarding how work is performed and

discretion regarding the work target greatly affect mental stress and work satisfaction of caregivers³². They determine whether caregivers will head towards burnout due to stress or whether they can continue their jobs and feel that they are meaningful. Fujiwara *et al.*³³ described that long actual working hours and long hours of involvement with patients pose an excessive burden on caregivers. For group homes where tireless care for elderly dementia patients is required, it is important to understand the characteristics of dementia and to provide individualized care. Onodera *et al.*³⁴ described that stresses of caregivers are correlated with conflicts with colleagues, supervisors or even dementia patients^{35, 36} and that the quality of care for the patients particularly tends to be influenced by conflicts with supervisors. As shown here, deterioration of human relationships and accumulation of interpersonal burdens are considered to lead to emotional exhaustion. In order to mitigate these, acquisition of specialized care techniques for dementia patients and effective coping behaviors for emotional exhaustion are important. At workplaces, improving the environment with the support of supervisors or colleagues and devising ongoing supportive educational systems are important. Human relations sometimes play a role in mitigating stresses³⁶. Social support is not limited to physical assistance alone but encompasses all kinds of activities such as appropriately supporting, providing information for or comforting people who are in trouble³⁷⁻⁴⁶. Through such efforts, burnout can be alleviated. It was inferred that social support is an important factor in preventing burnout for human service workers such as caregivers.

Conclusion

This study clarified that self-care of physical and mental health, family support and social support were very important in maintaining mental health and preventing burnout in caregivers of dementia patients. Improvement of working conditions was considered particularly important for social support.

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