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メタデータ	言語: en 出版者: 公開日: 2022-11-07 キーワード (Ja): キーワード (En): 作成者: メールアドレス: 所属: 金沢大学
URL	<a href="http://hdl.handle.net/2297/00067801">http://hdl.handle.net/2297/00067801</a>

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# Factors affecting the care management of behavioral and psychological symptoms of dementia among care managers in Japan

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## Abstract

**Aim:** The aim of this study was to clarify the actual status of management of triggers of behavioral and psychological symptoms of dementia (BPSD) among care managers and the factors that affect the implementation of management.

**Methods:** An anonymous self-administered questionnaire was conducted for care managers from 4000 in-home long-term care support providers throughout Japan. The following items were surveyed: gender, basic qualifications, years of work experience with basic qualifications and care manager, cognitive symptoms, underlying illness and physical and mental conditions, living ability, living environment, social participation and life history, precautions when creating care plans, and difficulties in support. Univariate analysis was conducted according to whether the management of BPSD triggers was implemented. Binary logistic regression analysis was conducted with the items that showed significant differences as independent variables, and the implementation of trigger management as the dependent variable.

**Results:** An analysis was conducted on 832 care managers with the basic qualifications of a certified care worker and nurse. Of these, 430 (53.6%) managed triggers, while 402 (46.4%) did not. Compared to those who didn't manage triggers, a significantly higher percentage of those who did manage triggers assessed their cognitive symptoms, physical and mental status, living ability, living environment and social participation, and adopted precautions when creating care plans. Factors affecting the implementation of trigger management included the patient's strengths, connection with local residents, promotion of family members' understanding of dementia, consideration of abuse prevention, cooperation with doctors, and basic qualifications.

**Conclusions:** Half of the respondents implemented trigger management, which was affected by the list of precautions when creating care plans, and basic qualifications. Promoting care plans that include support, which increases the self-efficacy of people with dementia, building stable relationships with local residents and family members, and cooperation with doctors, may lead to the implementation of trigger management. In particular, the necessity of promoting trigger management among certified care workers was suggested.

## KEY WORDS

care management, behavioral and psychological symptoms of dementia, care manager, trigger, factor

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## Introduction

Japan is one of the most rapidly aging populations in the world. The aging rate in September 2020 reached 28.7% (36.17 million people), and it is predicted to reach 35.3% (39.21 million people) by 2040<sup>1)</sup>. As the number of older people increases, the number of people with dementia is also increasing and is expected to reach 8.02 million by 2040<sup>2)</sup>. The World Health Organization estimates that the number of people with dementia will increase by nearly 10 million annually worldwide and reach 82 million in 2030<sup>3)</sup>. For countries with aging populations, preventive measures against dementia are an important issue.

The symptoms of dementia are broadly classified into core symptoms and behavioral and psychological symptoms of dementia (BPSD). Core symptoms are cognitive dysfunctions caused by damage to the nerve cells in the brain, and they include memory impairment, disorientation, and executive dysfunction, making daily life increasingly difficult as the illness progresses. BPSD refers to a variety of psychiatric symptoms and behavioral disorders resulting from the interaction of core symptoms with environmental, physical, and psychological factors<sup>4,5,6)</sup>. Behavioral symptoms include day/night reversal, violence, and wandering, while psychological symptoms include agitation, aggression, and anger. These symptoms increase the physical and mental distress of people with dementia and destabilize their lives. Furthermore, they increase the burden of care on family members and caregivers and reduce their motivation to care for the patient<sup>7,8,9)</sup>. As the burden of caregiving increases, the amount of care services required also increases, making it difficult for the family members providing care to find employment and leading to increased financial burden<sup>10,11)</sup>. Thus, BPSD decreases the quality of life (QOL) of people with dementia and their families, making it difficult for them to live at home, it is important to prevent it. BPSD develops when factors such as physical and mental health deterioration, living environment, and nursing care interact. It has been reported that BPSD can be alleviated by properly regulating patients' sleep rhythm and living environment<sup>12,13,14)</sup>. Therefore, it is important for professionals who care for people with dementia to accurately assess and manage the triggers of BPSD.

Since the implementation of the Long-Term Care Insurance System in Japan in 2000, care management for the older people has been carried out by long-term care support specialists (commonly called care managers). For care managers to provide high-quality dementia care management, they need to assess the physical and mental conditions, as well as living conditions, and environment of people with dementia and conduct care management while paying attention to the BPSD triggers. Care managers become qualified after passing an examination conducted by the prefectural government and undergoing a certain amount of training. The basic qualifications and work experience required to take the exam for care managers varies with more than 20 of them; they include holding national qualifications for certified care workers, nurses, and certified social workers, as well as having experience as home helpers<sup>15)</sup>. Differences in expertise and experience based on basic qualifications can lead to different focus points in care management; however, this has still not been clarified. To improve the QOL of people with dementia and their families, it is important for all care managers to accurately manage triggers, regardless of the type of basic qualification.

The aim of this study was to clarify the actual status of the management of BPSD triggers and the factors that affecting the implementation of trigger management.

## Description of terminology

### 1. The Long-Term Care Insurance System

The system was established in 2000 to support people requiring nursing care due to age-related illness or disability. Eligibility is limited to those 65 years old or older who need nursing care, but those 40 years old or older can also use the service, depending on the type of illness or disability. Clients covered by this system can use a variety of services such as home nursing, home care, and day-care services, depending on their physical and living conditions. To use this system, each client needs to prepare a nursing care service utilization plan called a "care plan" and submit it to the municipality. Care plans can be created by clients themselves, but are usually prepared by care managers.

### 2. Care management

In this study, care management was defined as

activities conducted by care managers to support the patients' independence and improve their QOL. Specifically, it is a series of activities such as information gathering through interview consultation, assessment, preparation of care plans, service coordination, and monitoring.

## **Methods**

### **1. Research Design**

This study was a cross-sectional study, and a questionnaire survey was used.

### **2. Subjects**

A total of 4000 in-home long-term care support provides were selected from 39,138 in-home long-term care support provides of nationwide in Japan, using a regionally stratified random sampling method. The number of offices was divided into two levels, urban and county, after stratifying the prefectures by size, and the same number of offices were allocated to each. One care manager was selected from each in-home care support provider. There were no exclusion criteria.

### **3. Survey procedure**

An anonymous, self-administered questionnaire on care management for dementia was mailed to in-Home long-term care support provides.

A request form for research cooperation and one for research participation were sent to the administrators. They were asked to select one care manager responsible for the most care plans of people with dementia. The care managers were informed that participation was voluntary and returning the form indicated their agreement to participate in the study. Consent was considered as confirmed through the collection of the questionnaire.

### **4. Survey items**

Questions were asked regarding the care manager's gender, age, basic qualifications, years of experience in basic qualifications, years of work experience as care manager, experience of supporting someone with dementia before becoming a care manager, work pattern, and whether the care manager actively participated in case study meetings and training to improve their abilities. To assess of management of

BPSD triggers, four items on cognitive symptoms, six on underlying illness and physical and mental conditions, three items on living ability, two items on living environment, and three items on social participation and life history were created with reference to the Standard Textbook of Dementia Care<sup>16)</sup>. Similarly, six items to precautions when creating care plans and three items regarding difficulty in support were created. The subjects self-evaluated the implementation of trigger management on a 7-point scale, "sufficiently implemented", "implemented", "implemented a little", "neither", "did not implemented much", "did not implemented" and "did not implemented at all". The survey was conducted from August to September 2018.

### **5. Analysis method**

Descriptive statistics for attributes, assess of management of BPSD triggers, precautions when creating care plans, and difficulties in support were calculated. Chi-square test was conducted to examine the association between basic qualifications of care manager and precautions when creating care plans or difficulty in support. Univariate analysis was conducted on attribute, basic qualifications, assessment of cognitive symptoms, underlying illness and physical and mental conditions, living ability, living environment, social participation and life history, precautions when creating care plans, and difficulties in support, according to the implementation status of trigger management. Respondent in the two levels who responded "sufficiently implemented" or "implemented" the management of triggers were classified as the "implementation group", and subjects in the five levels who responded "implemented a little" to "did not implemented at all" were classified as the "non-implementation group". Those who did a little were also classified as the "non-implementation group" because it is important to manage triggers thoroughly, considering that the QOL of patients with dementia and their families deteriorates when BPSD develops. A binomial logistic regression analysis was conducted, with the items that showed significant differences in the attributes and the precautions when creating care plans as the independent variables, and with the implementation of trigger management as the dependent variable. Correlation coefficients between independent

variables (less than 0.4) and multicollinearity ( $VIF \geq 2$ ) were confirmed. SPSS version 26 (IBMs, NY) was used for data analysis, and the significance level was set at 5%.

## 6. Ethical considerations

The study was conducted with the approval of the Medical Ethics Review Committee of Kanazawa University (2018/05/25, 845).

## Results

### 1. Attributes of the respondents

There were 1113 respondents (27.8%) with 308 males (27.7%) and 805 females (72.3%).

Regarding basic qualifications, there were 715 certified care workers (64.2%) and 141 nurses (12.7%), with 257 (23.1%) in 17 occupations such as certified social workers and home helpers. The mean age was  $51.1(\pm 9.3)$  years, and the mean years of work experience for basic qualifications was  $10.4(\pm 7.2)$  years, and for care managers was  $9.9(\pm 4.9)$  years.

The analysis was conducted on 856 respondents from the two previous occupations with the highest percentage of respondents: certified care workers and nurses, which had the second highest percentage of respondents. Of the 856 respondents, 832 (696 certified care workers and 136 nurses) were included in the analysis, excluding 24 respondents who were missing many of the answers to important items.

Regarding promoting family understanding of dementia, 514 (73.9%) reported “yes” and 182 (26.1%) reported “no” for certified care workers, and 119 (87.5%) reported “yes” and 17 (12.5%) reported “no” for nurses ( $p < 0.001$ ). Collaboration with doctors were 327 (47.0%) “yes” and 369 (53.0%) “no” for certified care workers, and 78 (57.4%) “yes” and 58 (42.6%) “no” for nurses ( $p = 0.027$ ). Hence, in both items, the number of “yes” among nurses was significantly higher.

### 2. Attributes of the respondents compared by the management of BPSD triggers

The “implementation group” consisted of 430 (53.6%) respondents, including 63 “sufficiently implemented” and 367 “implemented”. The “non-implementation group” consisted of 402 (46.4%) respondents, including 230 “implemented a little”,

144 “neither”, 23 “did not implemented much”, 4 “did not implemented”, and 1 “did not implemented at all”. The mean age, basic qualifications, and years of experience as a care manager were significantly higher in the “implementation group” than in the “non-implementation group”. The basic qualifications were 336 (78.1%) for certified care workers and 94 (21.9%) for nurses in the “implementation group”, and 360 (89.6%) for certified care workers and 42 (10.4%) for nurses in the group that “non-implementation group”. The “non-implementation group” were significantly higher certified care workers than nurses. The number of those who actively participated in case study meeting and training to improve competency was significantly higher in the “implementation group” 525 (63.1%) than in the “non-implementation group” 307 (36.9%). There was no difference in the work pattern and experience with helping people with dementia between the groups (Table 1)

### 3. Characteristics of assessments compared by the management of BPSD triggers (Table 2)

For the assessment of cognitive symptoms, underlying illness and physical and mental conditions, living ability, living environment, and social participation and life history, the percentage of the “implementation group” who did assess was significantly higher than that of the “non-implementation group”. In the “non-implementation group”, more than 30% responded that they did not assess of five items on underlying illness and physical and mental conditions status, two items on living ability, two items on living environment, and three items on social participation. In addition, the “non-implementation group” responded that they did not assess “signs of illness or worsening of symptoms” 255 (63.4%), “fluid intake status” 228 (56.7%), “ability to manage property” 279 (69.4%), and “participation in community events and hobby groups” 224 (55.7%).

### 4. Precautions when creating care plans and difficulties in support according to the management of BPSD triggers

The percentage of respondents in the “implementation group” who answered that they considered was significantly higher than that in the “non-implementation group” regarding all six items that need to precautions

Table 1. Attributes of the participants compared by the management of BPSD triggers

Items	Category	Total n=832	implementation group n=430	non-implementation group n=402	p value
Gender	Male	200 (24.0)	82 (19.1)	118 (29.4)	0.001 <sup>1)</sup>
	Female	632 (76.0)	348 (80.9)	284 (70.6)	
Basic qualifications	Care Worker	696 (83.7)	336 (78.1)	360 (89.6)	<0.001 <sup>1)</sup>
	Nurse	136 (16.3)	94 (21.9)	42 (10.4)	
Work pattern	Full-time	571 (69.6)	295 (69.4)	276 (69.9)	0.866 <sup>1)</sup>
	Concurrent post	230 (28.0)	119 (28.0)	111 (28.1)	
	Other	19 (2.3)	11 (2.6)	8 (2.0)	
Experience in dementia care before becoming a care manager	Yes	760 (91.3)	394 (91.6)	366 (91.0)	0.765 <sup>1)</sup>
	No	72 (8.7)	36 (8.4)	36 (9.0)	
Actively participate in case study meetings and training to improve competency	Yes	525 (63.1)	308 (71.6)	217 (54.0)	<0.001 <sup>1)</sup>
	No	307 (36.9)	122 (28.4)	185 (46.0)	
Age	Years	51.0 ± 8.8	52.4 ± 8.9	49.5 ± 8.6	< 0.001 <sup>2)</sup>
Years of experience in basic qualifications	Years	10.1 ± 6.8	10.6 ± 7.7	9.6 ± 5.7	0.041 <sup>2)</sup>
Years of work experience as a care manager	Years	9.5 ± 4.8	10.0 ± 4.8	8.9 ± 4.8	0.001 <sup>2)</sup>

n (%), mean ± standard deviation, <sup>1)</sup> Pearson's chi-square test, <sup>2)</sup> t-test

Note: BPSD : behavioral and psychological symptoms of dementia

"implementation group" refers to those who answered "Implemented" to the question "Do you manage triggers?"

Work pattern : n=820 because there are 12 missing cases.

"Concurrent" care managers work as both care managers and in another role, e.g. as a home-visit nurse.

when creating care plans. In the “non-implementation group” responded that they did not be “considering what the patients are good at and what they like” 259 (64.4%), “continuing connections with people who are close to the patients and the community” 305 (75.9%), “collaborating with doctors” 263(65.4%), “consulting Community General Support Center” 232 (57.7%). However, there was no significant difference in experiencing difficulty with providing support between the two groups. (Table 3).

### 5. Factors affecting for the implementation of trigger management (Table 4).

The factors affecting for the implementation of trigger management were as follows, “considering what patients are good at and what they like” (odds ratio [OR] 2.865, confidence interval [CI] 1.982-4.141,  $p < 0.001$ ), “promoting the family understanding of dementia” (OR 2.301, CI 1.523-3.477,  $p < 0.001$ ), “considering how to prevent abuse and inadequate long-term care” (OR 2.290, CI 1.535-3.416,  $p < 0.001$ ), “basic qualifications” (OR 2.166, CI 1.359-3.451,  $p = 0.001$ ), “continuing connections with people who are close to the patients and the community” (OR 2.154, CI 1.491-3.110,  $p < 0.001$ ), and “collaboration with doctors” (OR 1.721, CI 1.241-2.388,  $p = 0.001$ ). The discriminant accuracy was 72.2%.

## Discussion

### 1. Current status and issues of assessment by care managers according to the status of BPSD trigger management implementation

The respondents’ characteristics, such as gender, age, and basic qualifications, were generally the same as those reported in other surveys in Japan<sup>15)</sup>.

The reason why those basic qualification as certified care worker did not take into consideration for the promotion the family understanding of dementia more than nurses when making care plans was because they had less experience in explaining dementia to a family member during their previous jobs. Also, they did not consider collaboration with doctors because probably they had less opportunity to work with them in their previous jobs.

The “implementation group” was significantly more likely than the “non-implementation group” to report that they were able to assess cognitive symptoms, underlying illness and physical and mental conditions, living ability, living environment, social participation, and life history. Among the “non-implementation group”, 63.4% did not assess the signs of worsening illness or symptoms. In addition, about half of those in the “non-implementation group” did not assess sleep status and fluid intake status. BPSD is often caused by

Table 2. Characteristics of assessments compared by the management of BPSD triggers

Item	Category	Total n=832	implementatio n group n=430	non- implementation group n=402	p value
<b>Cognitive symptoms</b>					
Checking memory impairment	Yes	713 (85.7)	400 (93.0)	313 (77.9)	<0.001
	No	119 (14.3)	30 (7.0)	89 (22.1)	
Checking lowering of comprehension and judgment	Yes	744 (89.4)	406 (94.4)	338 (84.1)	<0.001
	No	88 (10.6)	24 (5.6)	64 (15.9)	
Checking disorientation and executive function disorder	Yes	679 (81.6)	391 (90.9)	288 (71.6)	<0.001
	No	153 (18.4)	39 (9.1)	114 (28.4)	
Checking diagnosis of dementia	Yes	669 (80.4)	362 (84.2)	307 (76.4)	0.005
	No	153 (19.6)	68 (15.8)	95 (23.6)	
<b>Underlying illness and physical and mental conditions</b>					
Checking medical history and current medical status	Yes	779 (93.6)	416 (96.7)	363 (90.3)	<0.001
	No	53 (6.4)	14 (3.3)	39 (9.7)	
Checking medication status and presence of side effects	Yes	639 (76.8)	372 (86.5)	267 (66.4)	<0.001
	No	193 (23.2)	58 (13.5)	135 (33.6)	
Checking signs of worsening illness or symptoms	Yes	538 (64.7)	391 (90.9)	147 (36.6)	<0.001
	No	294 (35.3)	39 (9.1)	255 (63.4)	
Checking defecation status	Yes	583 (70.1)	355 (82.6)	228 (56.7)	<0.001
	No	249 (29.9)	75 (17.4)	174 (43.3)	
Checking sleep status	Yes	542 (65.1)	340 (79.1)	202 (50.2)	<0.001
	No	290 (34.9)	90 (20.9)	200 (49.8)	
Checking fluid intake	Yes	474(57.0)	300 (69.8)	174 (43.3)	<0.001
	No	358(43.0)	130 (30.2)	228 (56.7)	
<b>Living ability</b>					
Checking household chores and daily activitie	Yes	691 (83.1)	380 (90.7)	301 (74.9)	<0.001
	No	141 (16.9)	40 (9.3)	101 (25.1)	
Checking communication ability	Yes	633 (76.1)	376 (87.4)	257 (63.9)	<0.001
	No	199 (23.9)	54 (12.6)	145 (36.1)	
Checking ability to manage property	Yes	390 (46.9)	267 (62.1)	123 (30.6)	<0.001
	No	442 (53.1)	163 (37.9)	279 (69.4)	
<b>Living environment</b>					
Checking health and employment status of family	Yes	660 (79.3)	384 (89.3)	276 (68.7)	<0.001
	No	172 (20.7)	46 (10.7)	126 (31.3)	
Checking convenience and safety of living	Yes	601 (72.2)	365 (84.9)	236 (58.7)	<0.001
	No	231 (27.8)	65 (15.1)	166 (41.3)	
<b>Social participation and life history</b>					
Asking about life history and habits	Yes	593 (71.3)	356 (82.8)	237 (59.0)	<0.001
	No	239 (28.7)	74 (17.2)	165 (41.0)	
Asking about interactions with friends	Yes	536 (64.4)	327 (76.0)	209 (52.0)	<0.001
	No	296 (35.6)	103 (24.0)	193 (48.0)	
Asking about participation in community events and hobby groups.	Yes	473 (56.9)	295 (68.6)	178 (44.3)	<0.001
	No	359 (43.1)	135 (31.4)	224 (55.7)	

n (%), Pearson's chi-square test

Note: BPSD : behavioral and psychological symptoms of dementia

"implementation group" refers to those who answered "Implemented" to the question "Do you manage triggers?"

circadian rhythm disturbances, stress, and inappropriate environment and care. Worsening of symptoms, dehydration, and lack of sleep are triggers for BPSD<sup>13)</sup>. Therefore, when caring for patients with dementia, it

is necessary to detect and deal with these triggers in daily life at an early stage<sup>16,17)</sup>. In particular, physical and mental conditions need to be reliably assessed by inferring the expected future deterioration. In addition,

Table 3. Precautions when creating care plans and difficulties in support according to the management of BPSD triggers

Item	Category	Total n=832	implementation group n=430	non- implementation group n=402	p value
<b>precautions when creating care plans</b>					
Considering what patients are good at and what they like	Yes	472 (56.7)	329 (76.5)	143 (35.6)	< 0.001
	No	360 (43.3)	101 (23.5)	259 (64.4)	
Continuing connections with people who are close to the patients and the community	Yes	358 (43.0)	261 (60.7)	97 (24.1)	< 0.001
	No	474 (57.0)	169 (39.3)	305 (75.9)	
Promoting the family understanding of dementia	Yes	633 (76.1)	382 (88.8)	251 (62.4)	< 0.001
	No	199 (23.9)	48 (11.2)	151 (37.6)	
Considering how to prevent abuse and inadequate long-term care	Yes	625 (75.1)	375 (87.2)	250 (62.2)	< 0.001
	No	207 (24.9)	55 (12.8)	152 (37.8)	
Collaboration with doctors	Yes	405 (48.7)	266 (61.9)	139 (34.6)	< 0.001
	No	427 (51.3)	164 (38.1)	263 (65.4)	
Consulting with Community General Support Center	Yes	420 (50.5)	250 (58.1)	170 (42.3)	< 0.001
	No	412 (49.5)	180 (41.9)	232 (57.7)	
<b>Difficulty in support</b>					
Responding to those who refuse the intervention of others	Difficulty	577 (69.4)	292 (67.9)	285 (70.9)	0.350
	No difficulty	255 (30.6)	138 (32.1)	117 (29.1)	
Responding to complaints from neighbors	Difficulty	507 (60.9)	264 (61.4)	243 (60.4)	0.780
	No difficulty	325 (39.1)	166 (38.6)	159 (39.6)	
Assessment to determine the limits of living alone	Difficulty	515 (61.9)	261 (60.7)	254 (63.2)	0.461
	No difficulty	317 (38.1)	169 (39.3)	148 (36.8)	

n(%), Pearson's chi-square test

Note: BPSD : behavioral and psychological symptoms of dementia

"implementation group" refers to those who answered "Implemented" to the question "Do you manage triggers?"

A community general support center is a facility established to provide comprehensive support for health improvement for older people.

Table 4. Factors affecting for the implementation of trigger management

n = 832

	Comparison Category / Base Category	n	Partial regression coefficient (B)	Odds Ratio	Odds Ratio 95% Confidence Interval	p value
Considering what patients are good at and what they like	1 Yes / 0 No	1:472 / 0:360	1.053	2.865	1.982 - 4.141	< 0.001
Promoting the family understanding of dementia	1 Yes / 0 No	1:633 / 0:169	0.833	2.301	1.523 - 3.477	< 0.001
Considering how to prevent abuse and inadequate long-term care	1 Yes / 0 No	1:625 / 0:207	0.828	2.290	1.535 - 3.416	< 0.001
Basic qualifications	1 Nurse / 0 Care worker	1:136 / 0:696	0.773	2.166	1.359 - 3.451	0.001
Continuing connections with people who are close to the patients and the community	1 Yes / 0 No	1:358 / 0:474	0.767	2.154	1.491 - 3.110	< 0.001
Collaboration with doctors	1 Yes / 0 No	1:405 / 0:427	0.543	1.721	1.241 - 2.388	0.001
Constant			-2.512	0.081		

Binomial logistic regression analysis

Note. R<sup>2</sup> value: 0.349 Accuracy: 72.2%, Hosmer and Lemeshow test  $\chi^2 = 5.715(p=0.573)$

Input items outside the table: Years of work experience as a care manager

Experience in dementia care before becoming a care manager

Consulting with Community General Support Center

more than 90% of those in the "implementation group" and less than 75% of those in the "non-implementation group" did to assess cognitive symptoms such as disorientation and executive function impairment, as well as living ability. When disorientation and executive function disorder occur, the living activities such as dressing, washing, and housework are reduced, increasing the stress of people with dementia and increasing the burden of caregiving for the family. Therefore, it is necessary to conduct an assessment by associating the physical and mental conditions with

the living abilities. In addition, 36.1% of those in the "non-implementation group" were unable to assess the clients' ability to communicate with others. When the communication skills of people with dementia deteriorate, they are unable to communicate with others even if they feel physical or mental illness or problems in their lives. Therefore, assessment of the ability to communicate is important<sup>18)</sup>. Moreover, as previous studies have shown, people with dementia tend to be vulnerable to consumer fraud, so it is important to consider a rights protection perspective for their

safety<sup>19</sup>). As for the ability to manage property, 69.4% of the “non-implementers” did not evaluate it, although the “implementers” also did not do so much. Care managers need to strengthen their perspective on rights protection in the future.

## 2. Factors affecting the implementation of trigger management

The results of the binomial logistic regression analysis showed that the factors affecting the implementation of the trigger management were as follows, “considering what patients are good at and what they like”, “promoting the family understanding of dementia”, “considering how to prevent abuse and inadequate long-term care”, “continuing connections with people close to the patients and the community”, “collaboration with doctors”, and “basic qualifications”.

In dementia care, the importance of person-centered care, which emphasizes the individuality of a person, is widely known<sup>20</sup>. Incorporating what people with dementia are good at and what they like to do in their lives improves self-efficacy and self-esteem. Similarly, maintaining connections with people they are close to and the community provides them with a sense of security and a way of life that is unique to them. Previous studies have also shown that maintaining self-efficacy and self-esteem in people with dementia can lead to a stable life and improved ability to cope with problems<sup>21,22,23,24</sup>. In addition, improving family members’ understanding of dementia will help in the early detection of and response to triggers<sup>25</sup>. It is also expected that family members’ understanding of the appropriate ways of interacting and caring for a person with dementia will reduce conflicts in that person’s life and help prevent the onset of BPSD<sup>25,26</sup>. Moreover, prevention of inadequate caregiving and abuse will prevent stress and stabilize the lives of people with dementia<sup>27,28</sup>. Among the respondents, 61.9% in the “implementation group”, and only 34.6% in the “non-implementation group” collaborated with doctors. Deterioration in physical and mental condition triggers BPSD, so it is important to detect it early through accurate assessment and to manage it in daily life. Therefore, it is necessary to collaborate with doctors, and furthermore, early detection can be achieved by incorporating medical professionals into the care team.

These results were suggested that incorporating the dementia patient’s strengths, connections with local residents, promotion of family understanding, prevention of abuse, collaborate with doctors into the care plan leads to a sense of self-efficacy and security for the dementia patient.

It has been noted that care managers in the nursing care and welfare fields may experience more difficulty in judging medical conditions and predicting future medical conditions than medical care managers<sup>29</sup>. Although the results are limited to two qualifications, certified care worker and nurse, this study is the first to show that the experience and career of the care manager affects the implementation of the management of BPSD triggers.

## 3. Future issues in the implementation of BPSD trigger management

This study suggests that providing support to increase self-efficacy by considering the strengths of the patient with dementia, the establishment of stable relationships with residents, the promotion of family members’ understanding of dementia, and the early detection of signs of worsening symptoms through cooperation with doctors and a care team that includes medical professionals, would lead to the implementation of trigger management. To prevent BPSD, it is necessary for care managers to promote understanding of BPSD so that it can be accurately managed. Regarding basic qualifications, there was a difference in the implementation of trigger management between nurses and certified care workers, but it could be because of the difference in expertise and knowledge of medical and lifestyle care. This can be reinforced through collaboration with physicians and the addition of medical professionals to the care team. Furthermore, it is necessary to promote understanding of rights protection, regardless of basic qualifications.

## Conclusion

Half of the respondents implemented the management of trigger. Considerations precautions when creating care plans and basic qualifications influenced the implementation of management. Providing support that increases patients’ self-efficacy, building stable relationships with local residents and family members,

and reflecting collaboration with doctors on creating care plans, may lead to the implementation of trigger management. It also in the results limited to nurses and certified care workers, the need to promote trigger management for certified care workers was suggested.

### **Limitations and challenges of this study**

This study is novel in that it clarified the actual implementation of management of BPSD triggers by care managers and the factors that affection implementation. However, because the responses to the survey items were self-evaluation, there is a gap between the actual situation and the self-evaluation responses, which may not necessarily correspond to the actual quality of care plans. In the future, it is necessary to develop an objective evaluation index to measure the quality of care management.

The questionnaire items were prepared on the premise that lectures and exercises necessary for managing BPSD triggers are included in the statutory

training for care managers and after consulting with care managers with basic qualification of a certified care worker. However, the benchmark for self-assessment may have been set low due to a lack of confidence in medical knowledge.

Moreover, owing to the number of respondents for each basic qualification, the results are limited to two of the many professions that are required for care manager qualification: certified care workers and nurses. In the future, we believe it is necessary to analyze the unanalyzed occupations.

### **Acknowledgements**

This study is part of a doctoral dissertation of the Doctoral Course, Division of Health Sciences, Graduate School of Medical Sciences and it was supported by the Japan Society for the Promotion of Science (JSPS) from to 2016-2019. There are no conflicts of interest to declare.

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## 日本のケアマネジャーにおける認知症の行動・心理症状の

### ケアマネジメントに影響を与える要因

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#### 要 旨

**目的:**本研究の目的は、認知症の行動・心理症状（BPSD）の誘因に対するケアマネジャーの管理の実態と、管理の実施に影響する要因を明らかにすることである。

**方法:**日本全国の居宅介護支援事業者 4000 件のケアマネジャーを対象に、無記名自記式の質問紙調査を実施した。調査項目は、性別、基礎資格、基礎資格とケアマネジャーの実務経験年数、認知症状、基礎疾患や心身の状態、生活能力、生活環境、社会参加と生活歴についてのアセスメント状況、ケアプラン作成時の留意点、支援の困難さなどであった。BPSD の誘因の管理を実施しているかどうかで単変量解析を行った。有意差を示した項目を独立変数とし、誘因の管理の実施の有無を従属変数として、二項ロジスティック回帰分析を行った。

**結果:**介護福祉士と看護師の基礎資格を持つケアマネジャー 832 名を対象に分析を行った。このうち 430 名 (53.6%) は誘因の管理を行っており、402 名 (46.4%) は行っていなかった。誘因の管理を行っていない人に比べて、誘因の管理を行っている人は、認知症状、心身の状態、生活能力、生活環境、社会参加などのアセスメントを行い、ケアプラン作成時の留意点を取り入れている割合が有意に高かった。誘因の管理の実施に影響する要因としては、本人の強み、地域住民とのつながり、家族の認知症に対する理解の促進、虐待防止への配慮、医師との連携、基礎資格などが挙げられた。

**結論:**対象者の半数が誘因の管理を実施しており、ケアプラン作成時の留意点の項目のリストや基礎資格が影響していた。認知症の人の自己効力感を高める支援、地域住民や家族との安定した関係づくり、医師との連携を反映したケアプランの推進が、誘因の管理の実施につながる可能性がある。特に、介護福祉士において誘因の管理を推進することの必要性が示唆された。

