

# Corroborative Activities and Recognition Between Community Comprehensive Care Unit's Nurses and Care Managers in Supporting Discharge of Elderly from Hospital – A Secondary Publication

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**Abstract:** *Objective:* The purpose of this study was to clarify the collaborative activities and mutual recognition between community comprehensive care unit nurses (Ns) and care managers (CM) in supporting the discharge of the elderly from the hospital. *Methods:* A total of 300 nurses working in community comprehensive care wards and 360 care managers working in B City in A Prefecture were surveyed using an anonymous self-administered questionnaire. *Results:* The highest percentage of responses regarding necessary collaborative activities with multiple professions in supporting hospital discharge were the same for Ns and CMs. The items regarding practice with the highest percentages were “relationship as a team” for Ns, and “user-centered awareness” for CM. While these professionals were willing to share information about their patients’ lives after discharge, the percentage of those explaining their expertise was low. It is thought that collaborative activities focusing on these aspects would lead to more appropriate discharge support.

**Keywords:** Discharge support; Community comprehensive care ward; Ward nurses; Care managers; Collaborative activities

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## 1. Introduction

Japan is experiencing an unparalleled rate of aging among its population. According to a patient survey, 74.7% of hospitalized patients are aged 65 years or older<sup>[1]</sup>. Discharging elderly patients from hospitals smoothly presents challenges due to various factors, including the need for continued treatment post-discharge, decline in activities of daily living (ADL) due to hospitalization, and deterioration in family functions. On the other hand, there is a push to shorten hospital stays to optimize inpatient medical costs and enhance the efficiency of the medical care delivery system.

Against this backdrop, the 2014 revision of medical service fees established the Regional Comprehensive Care Unit, aimed at supporting the return home of patients who have completed the acute stage of treatment <sup>[2]</sup>. Discharge support within a limited period of 60 days in the Community Comprehensive Care Unit necessitates collaboration between hospital and home care personnel. Issues related to collaborative activities in discharge support include the hospital side's statement that "medical personnel often do not understand the perspective of home treatment life and nursing care" and "information from care managers is not shared." On the other hand, the home care support office side stated that "there is resistance to communication with medical personnel," "there is insufficient understanding of hospital functions and the role of medical personnel," and "there is often a lack of understanding of the hospital functions and the roles of medical professionals" among other factors <sup>[3]</sup>. These issues may stem from differences in actual conditions and perceptions of collaborative activities in discharge support between hospitals and in-home care support offices.

The role of ward nurses significantly impacts discharge support, as providing self-determination support for discharge is crucial, and the involvement of ward nurses, who are close to the patients, is vital <sup>[4]</sup>. While there have been reports on collaboration among discharge support nurses, ward nurses, and visiting nurses, and between ward nurses and visiting nurses in supporting hospital discharge, there have been no reports focusing on collaboration between nurses in community comprehensive care units and care support specialists, who play a crucial role in supporting the discharge of elderly patients <sup>[5,6]</sup>. We believe that clarifying the actual status of the collaborative activities of both parties will enable us to consider specific measures and facilitate smooth discharge support for the elderly.

## 2. Objectives

This study aimed to elucidate the characteristics of the actual conditions and perceptions of cooperative activities between ward nurses (hereafter referred to as "Ns") and care support specialists (hereafter referred to as "CMs") in a community comprehensive care ward.

## 3. Definition of terms

Discharge support is defined as providing decision-making support to enable patients and their families to make their own choices about post-discharge medical care, and to ensure that support can continue to be tailored to their living conditions after discharge <sup>[4]</sup>.

## 4. Methods

### 4.1. Research subjects

Out of the 18 hospitals with community comprehensive care wards and beds in City B, Prefecture A, 300 Ns working in community comprehensive care wards at 14 hospitals, for which consent was obtained from the director of nursing, and 360 CMs working at all 134 home care support offices in City B, Prefecture A, were selected. The study subjects were Ns who had been hospitalized in a community comprehensive care ward, and CMs who had been hospitalized in a home care support office in a community comprehensive care ward.

### 4.2. Survey method

A self-administered, anonymous questionnaire survey was conducted. 300 questionnaires for Ns were sent to 14 hospitals that had given consent for the survey. 300 questionnaires for CMs were sent to managers of in-home care support facilities for distribution. The survey was mailed to the researcher for collection. The survey period

was from October to November 2020.

### 4.3. Survey content

The following attributes of the subjects were surveyed: age, gender, total years of experience, years of experience in the current position, qualifications, whether or not they had experience in supporting hospital discharge, and whether or not they had participated in a training program in the previous year in which multiple professions had gathered. The Health and Welfare Professions Collaboration Activity Rating Scale was used to evaluate collaboration activities <sup>[7,8]</sup>. This scale comprehensively assesses collaboration in health, medical care, and welfare, consisting of 15 items in four sub-scales (information sharing, business cooperation, interaction with related professions, and processing and management of collaborative tasks). A higher score indicates better implementation of collaborative activities. This scale was chosen because the four subscales are considered necessary elements for collaborative work in discharge support.

To understand the recognition of the necessity of collaborative activities with multiple professions in supporting hospital discharge and the degree of practice, a 20-item questionnaire was developed regarding collaborative activities with multiple professions in supporting hospital discharge of the elderly, focusing on four factors that promote collaborative activities with multiple professions according to previous studies <sup>[9,10]</sup>: (1) having beliefs as a professional, (2) knowing the expertise and roles of other professions, (3) having a user-centered awareness, and (4) forming relationships as a team. Respondents were asked to indicate their perception of necessity on a scale of “not necessary,” “not very necessary,” “undecided,” “necessary,” and “very necessary.” Six options for what Ns and CMs want in discharge support were developed, referring to previous studies <sup>[11]</sup> and the results of a preliminary survey.

### 4.4. Analysis method

Simple tabulations were conducted for each Ns and CM, and basic attributes were analyzed using the *t*-test,  $\chi^2$  test, and Fisher’s direct method. The scores of Ns and CMs were compared using a *t*-test for the evaluation of cooperative activities, and a one-way ANOVA was used to compare scores by age.

In terms of recognition of the necessity of collaborative activities with multiple professions in supporting hospital discharge and the degree of practice, those who answered “very necessary” or “necessary” were grouped as “necessary,” and those who answered “not necessary,” “not very necessary,” or “neither necessary nor necessary” were grouped as “not necessary.” The degree of practice was also analyzed using a  $\chi^2$  test, dividing the respondents into two groups: those who were practicing and those who were not practicing. A  $\chi^2$  test was used to determine the desires of Ns and CMs in discharge support. Statistical analysis software SPSS 25.0 was used for the analysis, and the significance level was set at 5%.

## 5. Ethical considerations

The study was conducted with the approval of the Kanazawa University Medical Ethics Review Committee (No. 988-1).

## 6. Results

### 6.1. Survey collection status

The number of Ns was 129 (43.0%), and the number of CMs was 183 (50.8%). Excluding those who had no experience in discharge support, those who had not completed the evaluation scale for collaborative activities, and those who had not completed two or more items in the recognition and practice of the necessity of collaborative activities in discharge

support, 89 Ns (valid response rate: 29.7%) and 138 CMs (valid response rate: 38.3%) were included in the analysis.

## 6.2. Basic attributes

**Table 1** shows that the mean age was  $40.6 \pm 10.0$  years for Ns and  $50.0 \pm 9.0$  years for CMs, with CMs being significantly older ( $P < 0.01$ ). The total years of experience were  $16.5 \pm 9.3$  years for Ns and  $20.4 \pm 8.0$  years for CMs, and the years of experience in the current position were  $3.2 \pm 2.1$  years for Ns and  $9.2 \pm 5.5$  years for CMs, both significantly longer for CMs ( $P < 0.01$ ).

**Table 1.** Basic attributes ( $[n (\%)]$ ; mean  $\pm$  standard deviation (SD))

		All ( $n = 227$ )	Ns ( $n = 89$ )	CM ( $n = 138$ )	<i>P</i>	
Gender <sup>(2)</sup>	Male	36 (15.9)	5 (5.6)	31 (22.5)		
	Female	190 (83.7)	84 (94.4)	106 (76.8)		
Age <sup>(1)</sup>		$46.3 \pm 10.5$	$40.6 \pm 10.0$	$50.0 \pm 9.0$	**	
Total years of experience <sup>(1)</sup>		$18.9 \pm 8.7$	$16.5 \pm 9.3$	$20.4 \pm 8.0$	**	
Years of experience in current position <sup>(1)</sup>		$6.8 \pm 5.3$	$3.2 \pm 2.1$	$9.2 \pm 5.5$	**	
Department / job type before current position <sup>(3)</sup> (multiple answers)	Emergency		82 (63.6)			
	Recovery		33 (25.6)			
	Outpatient		23 (17.8)			
	Medical treatment		12 (9.3)			
	Psychiatry		4 (3.1)			
	Medical clinic		4 (3.1)			
	Visiting nurse station		3 (2.3)			
	Palliative care		2 (1.6)			
	Residential care support center		2 (1.6)			
	Certified care worker				98 (71.0)	
	Registered nurse				18 (13.0)	
	Social worker				11 (8.0)	
	Practical nurse				4 (2.9)	
	Public health nurse				1 (0.7)	
Qualifications held outside of current position <sup>(3)</sup> (multiple choices)	Other		16 (12.4)	23 (16.7)		
	Certified care worker		0 (0)	101 (73.2)		
	Social worker		0 (0)	25 (18.1)		
	Registered nurse		–	18 (13.0)		
	Associate Nurse		15 (16.9)	5 (3.6)		
	Public health nurse		6 (6.7)	1 (0.7)		
	Care manager		5 (5.6)	–		
	Other		10 (11.2)	35 (25.4)		
	Participation in multidisciplinary training in the previous year <sup>(2)</sup>	Yes	180 (79.3)	52 (58.4)	128 (92.8)	
		No	47 (20.7)	37 (41.6)	10 (7.2)	**

\*  $P < 0.05$ ; \*\*  $P < 0.01$ ; <sup>(1)</sup> *t*-test for age, total years of experience, and years of experience in current position compared between Ns and CMs; <sup>(2)</sup>  $\chi^2$  test for gender and presence of multidisciplinary training in the previous year for Ns and CMs; <sup>(3)</sup> No statistical treatment was performed for departments and occupations before the incumbent position, or for qualifications other than the incumbent position.

### 6.3. Evaluation of the collaborative activities between Ns and CMs

Table 2 shows that the scores of Ns and CM were  $15.8 \pm 5.9$  and  $24.2 \pm 4.4$ , respectively, with CM scoring significantly higher ( $P < 0.01$ ).

**Table 2.** Evaluation of Ns and CMs' collaborative activities

(Data) item		Answer category <sup>†</sup>				
		0	1	2	3	
Information sharing	1. When you share the work with other organizations (institutions, etc.), do you report the progress and results of your assistance to the relevant organization?	Ns	3 (3.4)	4 (4.5)	67 (75.3)	15 (16.9)
		CM	0 (0.0)	2 (1.4)	103 (74.6)	33 (23.9)
	2. Do you know what kind of services the user receives from other organizations (facilities, etc.)?	Ns	0 (0.0)	19 (21.3)	66 (74.2)	4 (4.5)
		CM	0 (0.0)	1 (0.7)	120 (87.0)	17 (12.3)
	3. Do you collect knowledge and information necessary for service provision from other organizations?	Ns	4 (4.5)	32 (36.0)	47 (52.8)	6 (6.7)
		CM	0 (0.0)	6 (4.3)	114 (82.6)	18 (13.0)
Business cooperation	4. Based on the content of the user's consultation and problem situation, do you create (document) and recommend necessary services/programs to other organizations and professions?	Ns	16 (18.0)	31 (34.8)	34 (38.2)	8 (9.0)
		CM	1 (0.7)	31 (22.5)	87 (63.0)	87 (63.0)
	5. Do you request cooperation from other institutions?	Ns	12 (13.5)	38 (42.7)	36 (40.4)	3 (3.4)
		CM	0 (0.0)	2 (17.4)	102 (73.9)	12 (8.7)
	6. Are you requested to cooperate by other institutions?	Ns	16 (18.0)	41 (46.1)	30 (33.7)	2 (2.2)
		CM	1 (0.7)	53 (38.4)	78 (56.5)	6 (4.3)
Interaction with other professionals	7. Do you participate in gatherings (conferences, etc.) not only of your related professionals but also of other professionals in other professions?	Ns	28 (31.5)	46 (51.7)	15 (16.9)	0 (0.0)
		CM	9 (6.5)	94 (68.1)	35 (25.4)	0 (0.0)
	8. Have you heard from practitioners of other related institutions about the work and actual conditions of those institutions?	Ns	27 (30.3)	48 (53.9)	14 (15.7)	0 (0.0)
		CM	4 (2.9)	61 (44.2)	72 (52.2)	1 (0.7)
	9. Do you know what kind of professionals are in other related institutions?	Ns	10 (11.2)	43 (48.3)	35 (39.3)	1 (1.1)
		CM	3 (2.2)	30 (21.7)	103 (74.6)	2 (1.4)
	10. Do you encourage your colleagues to participate in case conferences?	Ns	32 (36.0)	33 (37.1)	22 (24.7)	2 (2.2)
		CM	9 (6.5)	40 (29.0)	75 (54.3)	14 (10.1)
	11. Do you participate in social gatherings with related organizations and other professionals in your institution?	Ns	48 (53.9)	32 (36.0)	9 (10.1)	0 (0.0)
		CM	36 (26.1)	75 (54.3)	27 (19.4)	0 (0.0)
	12. When a new specialist is appointed in your institution, do you make a round of greetings to the related institutions?	Ns	42 (47.2)	28 (31.5)	16 (18.0)	3 (3.4)
		CM	17 (12.3)	31 (22.5)	79 (57.2)	11 (8.0)
Management and processing of collaborative operations	13. Do you have the authority to make certain cost-sharing decisions at your discretion at meetings involving multiple organizations?	Ns	82 (92.1)	5 (5.6)	2 (2.2)	0 (0.0)
		CM	91 (65.9)	31 (22.5)	12 (8.7)	4 (2.9)
	14. Do you distribute materials about your work to other relevant organizations?	Ns	70 (78.7)	12 (13.5)	5 (5.6)	2 (2.2)
		CM	49 (35.5)	53 (38.4)	30 (21.7)	6 (4.3)
	15. Do you manage information on users collected by multiple institutions/professionals?	Ns	45 (50.6)	26 (29.2)	16 (18.0)	2 (2.2)
CM		4 (2.9)	7 (5.1)	85 (61.6)	42 (30.4)	

**Table 2 (Continued)**

(Data) item	Answer category <sup>†</sup>				
	0	1	2	3	
Score <sup>(a)</sup>	Ns	15.8 ± 5.9			
	CM	24.2 ± 4.4			
Scores by age group <sup>(b)</sup>		<b>20–29 years old</b>	<b>30–39 years old</b>	<b>40–49 years old</b>	<b>&gt;50 years old</b>
	Ns	15.3 ± 5.5	14.7 ± 6.3	17.0 ± 5.3	15.5 ± 6.7
	CM	23.2 ± 4.2	23.7 ± 4.7	24.3 ± 3.8	25.6 ± 4.9

<sup>(a)</sup>*t*-test comparing Ns and CM scores; <sup>(b)</sup>one-way ANOVA comparing scores by age for each age group; \*\**P* < 0.01

<sup>†</sup>Response categories: Q1, 0 – not at all, 1 – not very much, 2 – report as needed, 3 – report always; Q2 and Q9, 0 – I don’t know at all, 1 – I don’t know much, 2 – I know some, 3 – I know very much; Q3, 0 – I don’t collect at all, 1 – I don’t collect much, 2 – I collect mostly, 3 – I collect often; Q4, 0 – not at all, 1 – not very much, 2 – to some extent, 3 – very often; Q5, 0 – not at all, 1 – not very much, 2 – often, 3 – very often; Q6, 0 – not at all, 1 – not very much, 2 – often, 3 – very often; Q7 and Q11, 0 – not at all, 1 – not very much, 2 – attend quite a lot of gatherings, 3 – attend all; Q8, 0 – not at all, 1 – not very much, 2 – often, 3 – all; Q10, 0 – not recommend at all, 1 – not recommend much, 2 – recommend to some extent, 3 – recommend actively; Q12, 0 – not at all, 1 – not much, 2 – often, 3 – always; Q13, 0 – not at all, 1 – not much, 2 – generally, 3 – always; Q14, 0 – not at all, 1 – not much, 2 – mostly, 3 – all; Q15, 0 – I don’t manage at all, 1 – I don’t manage much, 2 – I manage mostly, 3 – I manage all.

#### 6.4. Regarding the activities of collaboration with multiple professions in supporting hospital discharge

A comparison of the recognition of the necessity of collaborative activities with multiple professions in discharge support between Ns and CMs is presented in **Table 3**. Fifty (56.2%) Ns and 101 (73.2%) CMs stated that “explaining one’s expertise to multiple professions” was necessary, while 79 (88.8%) Ns and 137 (99.3%) CMs stated that “focusing on patient strengths” was necessary, with the percentage of CMs significantly higher than that of Ns (*P* < 0.01). CMs scored significantly higher (*P* < 0.01).

**Table 3.** Comparison of the perception of the need for Ns and CMs regarding the activities of collaboration with multiple professions in supporting hospital discharge

Collaborative activity items	Ns ( <i>n</i> = 89)		CM ( <i>n</i> = 138)		<i>P</i>
	Not necessary	Necessary	Not necessary	Necessary	
<b>Have professional beliefs</b>					
Explain your expertise to multiple professions <sup>(a)§</sup>	39 (43.8)	50 (56.2)	36 (26.3)	101 (73.7)	**
<b>Learn about the specialties and roles of other occupations</b>					
Know the roles of multiple professions <sup>(b)</sup>	3 (3.4)	86 (96.6)	3 (2.2)	135 (97.8)	
<b>Patients (users) have a sense of ownership</b>					
Patient (user) awareness of the patient (user) subject’s own life history <sup>(b)</sup>	2 (2.2)	87 (97.8)	2 (1.4)	136 (98.6)	
Understand how the patient (user) wants to live <sup>(b)</sup>	2 (2.2)	87 (97.8)	0 (0.0)	138 (100.0)	
Know the thoughts and feelings of patients and their families	0 (0.0)	89 (100.0)	0 (0.0)	138 (100.0)	
Know the patient/family’s concerns/anxieties about discharge	0 (0.0)	89 (100.0)	0 (0.0)	138 (100.0)	

**Table 3 (Continued)**

Collaborative activity items	Ns ( <i>n</i> = 89)		CM ( <i>n</i> = 138)		<i>P</i>
	Not necessary	Necessary	Not necessary	Necessary	
Consider necessary information to enable the patient/family to make decisions <sup>(b)</sup>	1 (1.1)	88 (98.9)	0 (0.0)	138 (100.0)	
Share goals for discharge with patient/family <sup>(b)</sup>	1 (1.1)	88 (98.9)	5 (3.6)	133 (96.4)	
Focus on the strengths of the patient (user) <sup>(b)</sup>	10 (11.2)	79 (88.8)	1 (0.7)	137 (99.3)	**
Support patients to practice what they want, even if it is risky <sup>(a)</sup>	22 (24.7)	67 (75.3)	26 (18.8)	112 (81.2)	
Know the relationship between the patient (user) and the family <sup>(b)</sup>	3 (3.4)	86 (96.6)	0 (0.0)	138 (100.0)	
Know the role of the patient (user) in the family <sup>(b)</sup>	6 (6.7)	83 (93.3)	3 (2.2)	135 (97.8)	
Knowing the family's ability to care for the family <sup>(b)§</sup>	2 (2.2)	87 (97.8)	0 (0.0)	138 (100.0)	
Knowing the support capabilities of non-family members (community, friends, etc.) <sup>(a)§</sup>	5 (5.6)	84 (94.4)	9 (6.6)	128 (93.4)	
Know the living environment after discharge from the hospital <sup>(b)</sup>	1 (1.1)	88 (98.9)	0 (0.0)	138 (100.0)	
<b>Building relationships as a team</b>					
Utilize information from multiple professions <sup>(b)</sup>	2 (2.2)	87 (97.8)	1 (0.7)	137 (99.3)	
Provide professional input at conferences <sup>(b)</sup>	1 (1.1)	88 (98.9)	8 (5.8)	130 (94.2)	
The relationship is one in which you can easily ask questions of multiple professions <sup>(a)</sup>	5 (5.6)	84 (94.4)	12 (8.7)	126 (91.3)	
Hear the opinions of many professionals <sup>(b)</sup>	2 (2.2)	87 (97.8)	2 (1.4)	136 (98.6)	
It is also necessary to step into multidisciplinary areas of expertise <sup>(a)</sup>	32 (36.0)	57 (64.0)	61 (44.2)	77 (55.8)	

<sup>(a)</sup> $\chi^2$  test; <sup>(b)</sup>Fisher's direct method; \*\* $P < 0.01$ ; "Not necessary" included "not necessary," "not very necessary," and "neither necessary nor necessary"; "Necessary" included "very necessary" and "necessary"; §No answer from 1 CM

## 6.5. Regarding the activities of collaboration with multiple professions in supporting hospital discharge

A comparison of the degree of practice between Ns and CMs regarding collaborative activities in discharge support is presented in **Table 4**. The percentage of CMs who reported being more practiced in the 12 items of collaborative activities was significantly higher than that of Ns ( $P < 0.05$ ).

**Table 4.** Comparison of the degree of practice of Ns and CMs regarding activities of collaboration with multiple professions in supporting discharge from hospital

Collaborative activity items	Ns ( <i>n</i> = 89)		CM ( <i>n</i> = 138)		<i>P</i>
	Not ready	Ready	Not ready	Ready	
<b>Have professional beliefs</b>					
Explain your expertise to multiple professions	73 (82.0)	16 (18.0)	85 (61.6)	53 (38.4)	**
<b>Learn about the specialties and roles of other occupations</b>					
Know the roles of multiple professions	49 (55.1)	40 (44.9)	45 (32.6)	93 (67.4)	**

**Table 4 (Continued)**

Collaborative activity items	Ns (n = 89)		CM (n = 138)		P
	Not ready	Ready	Not ready	Ready	
<b>Patients (users) have a sense of ownership</b>					
Patient (user) awareness of the patient (user) subject's own life history	31 (34.8)	58 (65.2)	25 (18.1)	113 (81.9)	**
Understand how the patient (user) wants to live	52 (58.4)	37 (41.6)	44 (31.9)	94 (68.1)	**
Know the thoughts and feelings of patients and their families	27 (30.3)	62 (69.7)	24 (17.4)	114 (82.6)	*
Know the patient/family's concerns/anxieties about discharge	28 (31.5)	61 (68.5)	26 (18.8)	112 (81.2)	*
Consider necessary information to enable the patient/family to make decisions	39 (43.8)	50 (56.2)	41 (29.7)	97 (70.3)	*
Share goals for discharge with patient/family <sup>§</sup>	36 (40.9)	52 (58.4)	49 (35.5)	89 (64.5)	
Focus on the strengths of the patient (user)	60 (67.4)	29 (32.6)	60 (43.5)	78 (56.5)	**
Support patients to practice what they want, even if it is risky	70 (78.7)	19 (21.3)	92 (66.7)	46 (33.3)	
Know the relationship between the patient (user) and the family <sup>†</sup>	36 (40.4)	53 (59.6)	35 (25.5)	102 (74.5)	*
Know the role of the patient (user) in the family	49 (55.1)	40 (44.9)	52 (37.7)	86 (62.3)	*
Knowing the family's ability to care for the family <sup>§</sup>	29 (33.0)	59 (67.0)	19 (13.8)	119 (86.2)	**
Knowing the support capabilities of non-family members (community, friends, etc.) <sup>§</sup>	52 (59.1)	36 (40.9)	88 (63.8)	50 (36.2)	
Know the living environment after discharge from the hospital <sup>†</sup>	35 (39.3)	54 (60.7)	16 (11.6)	122 (88.4)	**
<b>Building relationships as a team</b>					
Utilize information from multiple professions <sup>(b)</sup>	25 (28.1)	64 (71.9)	42 (30.7)	95 (69.3)	
Provide professional input at conferences	30 (33.7)	59 (66.3)	55 (39.9)	83 (60.1)	
The relationship is one in which you can easily ask questions of multiple professions	29 (32.6)	60 (67.4)	64 (46.4)	74 (53.6)	*
Hear the opinions of many professionals	20 (22.5)	69 (77.5)	30 (21.7)	108 (78.3)	
It is also necessary to step into multidisciplinary areas of expertise	72 (80.9)	17 (19.1)	107 (77.5)	31 (22.5)	

$\chi^2$  test; \* $P < 0.05$ ; \*\* $P < 0.01$ ; "Not ready" included "not at all," "not very much," and "neither agree nor disagree"; "Ready" included "yes I'm practicing sometimes" and "yes I'm practicing most of the time"; <sup>§</sup>No answer from 1 Ns; <sup>†</sup>No answer from 2 CM

The two areas that differed significantly in terms of awareness of need and degree of practice were "understanding how the patient wants to live" as well as "focusing on the patient's strengths" for Ns, and "knowing the support capabilities outside of the family" for CMs.

## 6.6. Wishes for Ns and CMs in discharge support

Table 5 illustrates that 68 (76.4%) of the Ns expressed a desire for the CMs to "know the user's condition and provide support" and "share the image of life after discharge." Similarly, 120 (87.0%) of the CMs wished for the Ns to "know the user's condition and provide support," while 108 (78.3%) expressed a desire for them to "share the image of life after discharge."



**Table 5.** Expectations of Ns and CMs in discharge support[n (%)]

	Ns to CM	CM to Ns	P
I want to know about the user's condition and support details.	68 (76.4)	120 (87.0)	*
I want it to be easy to contact you.	27 (30.3)	64 (46.4)	*
Please let me know promptly if the policy changes.	47 (52.8)	80 (58.0)	
I would like to hear suggestions for services I need.	41 (46.1)	39 (28.3)	**
I want to share my image of life after discharge from the hospital.	68 (76.4)	108 (78.3)	
I want to share information about people in my community who can support me.	38 (42.7)	31 (22.5)	**

$\chi^2$  test; \* $P < 0.05$ ; \*\* $P < 0.01$

## 7. Considerations

### 7.1. Characteristics of Ns and CMs cooperation activities

Some Ns and CMs lacked experience in discharge support, while others incompletely filled out the forms, resulting in a valid response rate approximately 13% lower than the collection rate, respectively. Despite the lower valid response rate, which could be attributed to the busy period of the new coronary disease, we believe the results hold significance since there have been no previous reports on hospital discharge support for Ns and CMs.

CMs were notably more inclined to recognize the need for multidisciplinary collaboration in supporting the discharge of elderly patients from the hospital, particularly in two areas: “explaining one’s expertise to multidisciplinary professionals” and “focusing on the strengths of the patient (user).” A survey on the awareness of medical and nursing care among welfare professionals supporting community life revealed differences in perception regarding collaboration to support a community-based symbiotic society among professionals<sup>[12]</sup>, aligning with the results of this study. Notably, 72.0% of CMs are caregivers<sup>[20]</sup>, potentially contributing to their perceived psychological distance from medical professionals and resistance to communication<sup>[3]</sup>. Additionally, CMs feel they lack the awareness to understand multiple professions and collaboration<sup>[12]</sup>, while medical professionals often fail to provide support and collaboration based on their understanding of home life and caregiver perspectives<sup>[3]</sup>. These factors may have influenced CMs to strongly recognize the necessity of explaining their expertise to Ns, emphasizing the need for CMs to accumulate communication skills through practice to promote collaboration with Ns.

Regarding the degree of practice of multidisciplinary collaboration in discharge support for the elderly, it is plausible that Ns and CMs are influenced by the different venues in which they work, as well as the varying contents and priorities of their practice. However, we will take these factors into account to understand the distinct characteristics of each collaborative activity and consider measures to facilitate collaboration.

Ns scored significantly lower than CMs on the Collaborative Activities Rating Scale, with no variance by age. A survey of municipal public health nurses<sup>[13]</sup> reported that longer work experience correlated with higher scores. The disparity between these results and ours could be attributed to the novelty of the community comprehensive care ward itself, with Ns in our study having limited experience in such wards, averaging 3.2 years. Moving forward, analyzing changes in collaborative activities over time as experience is gained will be imperative. Those who participated in pre-discharge conferences more frequently reported a higher percentage of home care support<sup>[14]</sup>, and 34.5% reported a change in collaboration after feedback on the post-discharge situation<sup>[6]</sup>. Based on these findings, we posit that Ns require not only participation in pre-discharge conferences but also opportunities for learning through case studies to provide feedback after discharge, thereby

enhancing their collaborative activities.

The items most Ns were able to practice were “listening to the opinions of multiple professions” and “utilizing information from multiple professions.” Nurses in team medicine “value team relationships and communication” in cooperation and collaboration with multiple professions <sup>[15]</sup>. The results also suggest that Ns recognize the necessity of team relationships and translate this recognition into practice. Conversely, the items that Ns recognized the need for but were less likely to practice were “understanding how the patient wants to live” and “focusing on the patient’s strengths.” In the discharge support process practiced by nurses in the Community Care Unit, “considering the patient’s way of life” serves as a driving force to facilitate the process <sup>[16]</sup>, indicating their recognition of the importance of focusing on the patient’s way of life and strengths. On the other hand, the highest percentage of care practiced in community comprehensive care wards is care for improving daily living functions <sup>[14]</sup>, suggesting that care for improving daily living functions takes precedence due to the need to discharge patients within a limited number of days, making it difficult to grasp patients’ lifestyles and strengths. The items that many CMs were able to practice were “knowing the living environment after discharge” and “understanding the thoughts of the patient/family,” indicating that CMs need to understand the standard problem analysis items <sup>[17]</sup> in care management. In this process, they grasp necessary information and link user-centered awareness to practice.

## **7.2. Facilitating collaborative activities in discharge support**

Promoting collaboration necessitates understanding the roles and limitations of professionals. It has been reported that if professionals cannot recognize their own and others’ professional roles, they may struggle to exercise their expertise <sup>[9]</sup>. In this survey, 18.0% of Ns and 38.4% of CMs were able to practice “explaining one’s expertise to multiple professions,” indicating that understanding one’s own and others’ expertise is crucial for engaging in collaborative activities in discharge support. To achieve this, a training program that familiarizes Ns and CMs with each other’s characteristics of collaborative activities identified in this study would be beneficial.

Approximately 80% of both Ns and CMs expressed a desire to “share the image of life after discharge,” underscoring their inclination towards collaborative activities. Regarding the current status of discharge support by staff in community comprehensive care units, reports indicate difficulty in visualizing the patient’s life at home <sup>[18]</sup>, and elderly patients are at high risk of functional decline in daily life due to cognitive function and motivation decline following hospitalization <sup>[19]</sup>. CMs can utilize this information to learn about the patient’s living conditions before hospitalization, while Ns can glean insights into the patient’s physical and mental condition at the time of discharge through pre-discharge conferences. We believe that by sharing information, it will be possible to create a shared image of life after discharge.

## **7.3. Limitations of the study and future directions**

The study was confined to hospitals and clinics in City B, Prefecture A. The survey of Ns did not account for the presence or absence of hospital discharge coordination departments in each hospital, variations in hospital discharge support systems, and other factors that restrict the generalizability of the results. Additionally, the questionnaire regarding the recognition of the need for and the degree of implementation of collaborative activities with multiple professions in discharge support was developed for this study, and its reliability and validity need verification in the future.

## **8. Conclusion**

We investigated the characteristics of the actual conditions and perceptions of collaborative activities between

Ns and CMs in community comprehensive care wards concerning discharge support for the elderly and examined efforts to facilitate collaborative activities in discharge support for the elderly. We believe that fostering collaborative activities involves understanding each Ns and CM's recognition of discharge support and the characteristics of their practices, as well as sharing post-discharge information.

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## Disclosure statement

The authors declare no conflict of interest.

## References

- [1] Japanese Ministry of Health, Labour and Welfare, 2020, Approximate Number of Patients Surveyed in 2020. <https://www.mhlw.go.jp/toukei/saikin/hw/kanja/20a/index.html>
- [2] Overview of the 2014 Revision of Medical Reimbursement, <https://www.mhlw.go.jp/file/06-Seisakujouhou-12400000-Hokenkyoku/0000039378.pdf>
- [3] Commissioned by the Medical Care Coordination Policy Division, Health Insurance Bureau, Ministry of Health, Labor and Welfare, 2016, Report on Survey and Research on Strengthening Cooperation between Medical and Nursing Care in Local Communities in Fiscal 2016 (How Cooperation Should Provide Efficient and Effective Support for Hospital Discharge), <https://www.mhlw.go.jp/file/06-Seisakujouhou-12400000-Hokenkyoku/0000161398.pdf>
- [4] Utsunomiya H, 2009, Practical Cases of Discharge Support and Discharge Coordination Starting from Hospital Wards. Japan Nurses Association Press, 10–37.
- [5] Kurokami M, Ito T, 2020, Cooperative Support Among Discharge Support Nurses, Ward Nurses, and Visiting Nurses During the Transition to Home. *Medical Nursing Research*, 16(2): 47–53.
- [6] Miyashita M, 2018, Perception of Collaboration Between Ward Nurses and Visiting Nurses in Discharge Support. *Bulletin of Tohoku Bunka Gakuen University School of Nursing*, 7(1): 27–37.
- [7] Tsutsui T, 2003, The Actual Situation of Cooperation Activities of “Specialists” Engaged in Community Welfare Rights Advocacy Services and Development of “Evaluation Scale for Cooperation Activities” (Part 1). *Shakai Hoken Junpo*, 2183: 18–24.
- [8] Tsutsui T, 2003, Actual Conditions of Collaborative Activities of “Specialists” Involved in Community Welfare Rights Protection Services and Development of “Collaborative Movement Evaluation Scale” (Part 2). *Shakai Hoken Junpo*, 2184: 24–28.
- [9] Masunobu F, 2015, Multidisciplinary Cooperation Skills Required in Home Care Situations for the Elderly. *Bulletin of Graduate School of Social and Cultural Sciences Okayama University*, 39: 169–178.
- [10] Sakai I, Otsuka M, Fujinuma K, et al., 2015, Establishment of Professional Collaboration Competencies From the Development of Chiba University Inohana IPE. *Journal of Nursing Education*, 56(2): 112–115.
- [11] Naruse K, Uta M, 2018, Difficulties and Challenges in Multidisciplinary Cooperation in Home Care. *Bulletin of Kobe City College of Nursing*, 22: 9–15.

- [12] Kawaguchi M, Shizuko Y, 2019, Awareness of Medical and Nursing Care of Welfare Professionals Supporting Community Life – Clarification of Awareness of Cooperation and Common Recognition by Free Descriptions. *Nihon Fukushi University Journal of Social Welfare*, 141: 83–94.
- [13] Tsutsui T, Sadonori H, 2011, Study on the Actual Condition of “Collaboration” among Municipal Public Health Nurses in Japan. *Japan Kouei Journal*, 53(10): 762–776.
- [14] Maekawa K, Taniyama M, 2018, Current Status and Issues of Home Care Support by Nurses in a Community Comprehensive Care Ward in an Urban Area. *Journal of the Japan Society for Healthcare Management*, 18(4): 242–246.
- [15] Miharū O, Hideko E, Tomomi A, et al., 2014, An Analysis of Free Descriptions by Text Mining of Actions that Nurses Practicing Team Medicine Value in Cooperation and Collaboration with Multiprofessionals. *Konan Women’s University Research Bulletin (Nursing and Rehabilitation Science Edition)*, 8: 1–11.
- [16] Mihoko S, Sumie K, Tae N, 2021, Process of Discharge Support Practiced by Nurses in a Community Comprehensive Care Ward. *Journal of Japan Academy of Nursing Science*, 41: 905–914.
- [17] Institute of Social Insurance, 2018, Interpretation of Long-Term Care Fees 3QA: Laws and Regulations, 855.
- [18] Makoto F, Kiyomi W, Yukari K, et al., 2020, A Study of Issues to be Addressed by Ward Nurses to Improve the Quality of Discharge Support. *Bulletin of Gifu Prefectural College of Nursing*, 20(1): 145–155.
- [19] Aikawa M, Izumi K, Shogenji M, 2012, Factors Affecting Changes in Life Function in Elderly Patients During Hospitalization in a General Hospital. *Gerontological Nursing*, 16(2): 47–56.
- [20] Japanese Ministry of Health, Labour and Welfare, 2008, Survey on the Effectiveness of the FY 2008 Revision of Long-Term Care Compensation and Research Study, <https://www.mhlw.go.jp/content/12601000/000500278.pdf>

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