

NOTE

# Current Status of Outpatient Nurses' Support for the Psychological Concerns of Outpatients with Cancer

– A Cross-sectional Study using an Internet Survey –

Arisa TANAKA\*, Satoru IWASE\* and Yoji INOUE\*\*

\* *Saitama Medical University, 38 Morohongo, Moroyama-machi, Iruma-gun, Saitama 350-0495, Japan*

\*\* *Open University of Japan, 2-11 Wakaba, Mihama-ku, Chiba-shi, Chiba 261-8586, Japan*

**Abstract:** This study aimed to clarify the status of nurses' support for outpatient cancer patients' psychological concerns and related factors/issues. A survey was distributed among 804 outpatient nurses at 402 cancer care hospitals nationwide (as of April 2020). An analysis was conducted utilizing variables related to the characteristics of participants, departments, and hospitals as well as the status of support for cancer patients' psychological concerns. Of the 212 individuals who responded, 201 (response rate: 25%) were included in the analysis. Approximately 68% of the outpatient nurses reported providing support to cancer patients with psychological concerns. Several respondents, however, indicated that there was 'insufficient time' to address their patients' problems.

**Keywords:** *Outpatient department nurse, Cancer patient, Psychological concerns*

## 1. INTRODUCTION

Since 1981, cancer has been the leading cause of death in Japan [1], with approximately 1 of 3.6 people dying from cancer each year. To reduce the cancer mortality rate, the government established the 'Cancer Control Act' [2] in 2006. The law was partially amended in 2008 [3]. Further, the basic principle in Article 2 states that, 'To create a society in which patients with cancer can live with peace of mind while maintaining their dignity, they should receive appropriate treatment, social support, educational support, and other necessary support, according to their circumstances. Simultaneously, it is important to enhance the public understanding of cancer patients, as well as to improve the social environment so that cancer patients can lead a smooth social life'.

In 2005, a comprehensive evaluation system for medical group classification that shortens hospital stays and improves supportive care was introduced. In spite of the decrease in number of inpatients with cancer since then, the number of outpatients has continued to increase since 2002 [4]. The majority of patients with cancer are diagnosed during outpatient visits and begin treatment within approximately a year of their diagnosis. Thus, outpatient visits are common after diagnosis. Outpatient psychological care is essential following a diagnosis. The suicide rate for cancer patients in Japan within one year of cancer diagnosis is 23.9 times [5] higher than of the rate for patients in other countries.

A patient experience survey conducted by the Ministry of Health, Labour, and Welfare [6] revealed that 46.5% of

the respondents felt they could immediately consult with medical staff when they were in physical pain. In comparison, the percentage for psychological distress was as low as 32.8%. These reports suggest that medical professionals may not provide sufficient support to outpatients with cancer because of their psychological concerns.

According to the Ministry of Health, Labour, and Welfare's Study Group on the Promotion of Team Medical Care [7], nurses are expected to be 'key persons in team medical care' by patients, doctors, and other medical staff. This is because they perform a variety of roles, ranging from medical examination and treatment to supporting patients' medical care.

Despite this, the number of outpatient nurses remains the same as in 1948, when the Medical Care Act established that there should be one nurse per 30 patients [8].

Yamaguchi et al. constructed the Shizuoka Classification [9], a database that compiled the concerns of 12,000 cancer survivors who participated in a nationwide survey. Consequently, they found that the concerns of patients with cancer can be roughly categorised into 'medical treatment concerns', 'physical concerns', 'psychological concerns', and 'lifestyle concerns'. The number of cancer patients receiving treatment in outpatient departments is increasing. Although the expansion of support for psychological concerns has been cited as an issue, the number of outpatient nurses is insufficient. Moreover, to the best of our knowledge, the extent to which outpatient nurses, who play an essential role as key persons in healthcare and support the psychological concerns of outpatients with cancer, has not been adequately studied. Therefore, this study aimed to investigate the current status of psychological support for

outpatients with cancer among outpatient nurses at a cancer care hospital and identify issues.

## 2. METHODS

### 2.1 Participants

Full-time nurses who had been working in the outpatient department treating patients with cancer for three years or more at 402 facilities (as of April 2020), including the cancer care hospitals listed on the Ministry of Health, Labour, and Welfare website, were included. Chief nurses responsible for departmental management and nurse specialists/certified nurses who often support complex cases of cancer patients were excluded. Further, the time spent working in the blood collection, endoscopy, and emergency rooms was not included.

### 2.2 Survey item

The survey items were drafted in consultation with nursing researchers, palliative care physicians, statisticians, and data managers at the Japan Organisation for Research and Treatment of Cancer, based on the survey on the concerns and burdens of cancer survivors, published in 2016 [9]. The draft questions were pre-tested with nurses who have experience in outpatient nursing, oncology nursing researchers, and directors of patient support groups. Further, some linguistic modifications were made to the draft questions.

Consequently, the questions were as follows:

- (1) Basic participant characteristics (gender, age, education, years of experience, and position)
- (2) Characteristics of the department (presence of cancer nursing specialists)
- (3) Hospital characteristics (number of hospital beds)
- (4) Status of support for psychological concerns of cancer patients (items related to the Shizuoka classification)
- (5) Free statements regarding support for psychological concerns in patients with cancer.

The following responses were requested for the status of support for the psychological concerns of patients with cancer: 'I do not provide any support/I have never encountered such a situation', 'I do not provide much support', 'I provide some support', and 'I provide support'.

A nationwide survey of worries and burdens on cancer patients (Shizuoka Classification) conducted by Yamaguchi et al. [9] revealed the following subcategories of psychological concerns:

- (1) Information on peer support
- (2) Information on patient consultation services
- (3) Concerns about coping with the stress caused by treatment

### 2.3 Survey procedure

The participants were asked to complete an online survey between 11 September 2020 and 9 October 2020. Initially, we sent the hospital's nurse manager a request for a research cooperation document, a research cooperation request and an explanation document.

At the end of the research cooperation request and explanation document, participants were asked to answer the questionnaire if they agreed to participate in the study. Furthermore, the respondents' answers were regarded as their consent for the study.

### 2.4 Analysis methods

After confirming the descriptive statistics, the participants were divided into two groups based on the status of support for cancer patients' with psychological concerns: the 'non-support group' for support for cancer patient's concerns 1 (no support/never encountered such a situation) and 2 (not much support), and the 'support group' for 3 (some support) and 4 (regular support).

Then, to investigate the factors that contribute to the support of patients with cancer for their psychological concerns, we compared the proportions of the 'non-support group' and the 'support group' based on the characteristics of the participants, the department, and the hospital according to the research framework, using the chi-square test and Fisher's exact probability test for those with expected frequencies less than five.

The participants were divided into two groups based on the mean values of each variable. The SPSS Windows version 26 was used for the statistical analysis.

### 2.5 Ethical considerations

The Ethical Review Committee of the School of Medical Nursing, Juntendo University Graduate School of Medical and Nursing Sciences has approved this study (approval number: Junkanrin No. 2020-13).

The research participants were requested to cooperate free of coercion when the head nurse distributed the cooperation request form to them.

Their privacy was protected by Research Electronic Data Capture (REDCap), and the data were anonymised when handed to the researcher.

## 3. RESULTS

Of the 804 nurses eligible for the survey, 212 (response rate: 26%) responded to 402 cancer-care hospitals nationwide. Of these, ten nurses with less than 3 years of experience as outpatient nurses and one with 13.3 years

of experience as an outpatient nurse were excluded. A total of 201 nurses (response rate: 25%) were included in the analysis.

The backgrounds of the participants were divided into two categories: age less than 45 years and over, years of nursing experience less than 20 years and over, outpatient nursing experience less than 8 years and over, referring to the mean values of each variable.

### 3.1 Basic data

The attributes of the participants are shown in Table 1.

### 3.2 Support by outpatient nurses for 'psychological concerns'

- (1) Peer support (n=201; Table 2)
- (2) Support for patient consultation services (Table 3)
- (3) Support for problems related to coping with stress caused by treatment (n=201; Table 4)
- (4) In open-ended comments regarding support for 'psychological concerns'.

**Table 1:** Basic data

n=201	n	%
basic characteristics of the participants		
Gender		
Female	199	(99.0)
Male	2	(1.0)
Age		
Average±SD	45.17±7.75	
Education		
University degree or higher	30	(14.9)
Less than a college degree	171	(85.1)
Years of experience as a nurse		
Average±SD	21.74±7.92	
Years of experience as an outpatient nurse		
Average±SD	8.28±5.29	
Position		
Manager	53	(26.4)
Non-Manager	144	(71.6)
No response	4	(2.0)
characteristics of the department		
Is there a Certified Nurse Specialist in Cancer Nursing		
Yes	96	(47.8)
No	104	(51.7)
No response	1	(0.5)
Is there a Certified Nurse		
Yes	157	(78.1)
No	43	(21.4)
No response	1	(0.5)
Category of a Certified Nurse		
Certified Nurse in Palliative Care	84	(41.8)
Certified Nurse in Cancer Chemotherapy Nursing	132	(65.7)
Certified Nurse in Cancer Pain Management Nursing	37	(18.4)
Certified Nurse in Breast Cancer Nursing	49	(24.3)
Certified Nurse in Radiation Oncology Nursing	62	(30.8)
Characteristics of the hospital		
Number of hospital beds		
Less than 499 beds	74	(36.8)
More than 500 beds	126	(62.7)
No response	1	(0.5)

According to 88 (44%) nurses, there was an 'Insufficient number of nurses' in 36 hospitals (41%), 'Insufficient facilities' in 24 (27%), 'Insufficient cooperation' in 18 (20%), 'Insufficient knowledge' in 11 (13%), and 'Others' in 15 (17%).

**Table 2:** Information on peer support

	Non-supportive (%)	Supportive (%)	P value
n=201			
Gender			
Female	111 (56)	88 (44)	0.691
Male	1 (50)	1 (50)	
Age			
Less than 44 years old	54 (52)	50 (48)	0.262
More than 45 years old	58 (60)	39 (40)	
Education			
Less than a college degree	98 (57)	73 (43)	0.279
University degree or higher	14 (47)	16 (53)	
Years of experience as a nurse			
Less than 19 years old	51 (59)	35 (41)	0.377
More than 20 years old	61 (53)	54 (47)	
Years of experience as an outpatient nurse			
Less than 7 years old	64 (55)	52 (45)	0.855
More than 8 years old	48 (56)	37 (44)	
Position			
Non-Manager	79 (55)	65 (45)	0.352
Manager	33 (62)	20 (38)	
Is there a Certified Nurse Specialist in Cancer Nursing			
No	57 (55)	47 (45)	0.724
Yes	55 (57)	41 (43)	
Is there a Certified Nurse			
No	32 (74)	11 (26)	0.006*
Yes	80 (51)	77 (49)	
Category of a Certified Nurse			
There is a no Certified Nurse in Palliative Care	37 (52)	34 (48)	0.739
There is a Certified Nurse in Palliative Care	42 (50)	42 (50)	
There is a no Certified Nurse in Cancer Chemotherapy Nursing	14 (61)	9 (39)	0.303
There is a Certified Nurse in Cancer Chemotherapy Nursing	65 (49)	67 (51)	
There is a no Certified Nurse in Cancer Pain Management Nursing	59 (50)	59 (50)	0.667
There is a Certified Nurse in Cancer Pain Management Nursing	20 (54)	17 (46)	
There is a no Certified Nurse in Breast Cancer Nursing	54 (51)	52 (49)	0.993
There is a Certified Nurse in Breast Cancer Nursing	25 (51)	24 (49)	
There is a no Certified Nurse in Radiation Oncology Nursing	44 (47)	49 (53)	0.265
There is a Certified Nurse in Radiation Oncology Nursing	35 (56)	27 (44)	
Number of hospital beds			
Less than 499 beds	41 (55)	33 (45)	0.897
More than 500 beds	71 (56)	55 (44)	

\* p<0.05  
χ<sup>2</sup> test a:Fisher's exact probability test

**Table 3:** Support for patient consultation services

	Non-supportive (%)	Supportive (%)	P value
n=201			
Gender			
Female	50 (25)	149 (75)	0.444
Male	1 (50)	1 (50)	a
Age			
Less than 44 years old	24 (23)	80 (77)	0.439
More than 45 years old	27 (28)	70 (72)	
Education			
Less than a college degree	47 (28)	124 (72)	0.100
University degree or higher	4 (13)	26 (87)	
Years of experience as a nurse			
Less than 19 years old	21 (24)	65 (76)	0.788
More than 20 years old	30 (26)	85 (74)	
Years of experience as an outpatient nurse			
Less than 7 years old	28 (24)	88 (76)	0.638
More than 8 years old	23 (27)	62 (73)	
Position			
Non-Manager	33 (17)	111 (56)	0.117
Manager	18 (9)	35 (18)	
Is there a Certified Nurse Specialist in Cancer Nursing			
No	31 (15)	73 (37)	0.146
Yes	20 (10)	76 (38)	
Is there a Certified Nurse			
No	9 (5)	34 (17)	0.438
Yes	42 (21)	115 (57)	
Category of a Certified Nurse			
There is a no Certified Nurse in Palliative Care	21 (14)	50 (32)	0.417
There is a Certified Nurse in Palliative Care	20 (13)	64 (41)	
There is a no Certified Nurse in Palliative Care	8 (5)	15 (10)	0.326
There is a Certified Nurse in Cancer Chemotherapy Nursing	33 (21)	99 (64)	
There is a no Certified Nurse in Cancer Pain Management Nursing	31 (20)	87 (56)	0.928
There is a Certified Nurse in Cancer Pain Management Nursing	10 (7)	27 (17)	
There is a no Certified Nurse in Breast Cancer Nursing	32 (20)	74 (48)	0.121
There is a Certified Nurse in Breast Cancer Nursing	9 (6)	40 (26)	
There is a no Certified Nurse in Radiation Oncology Nursing	25 (16)	68 (44)	0.882
There is a Certified Nurse in Radiation Oncology Nursing	16 (10)	46 (30)	
Number of hospital beds			
Less than 499 beds	27 (36)	47 (63)	0.006*
More than 500 beds	24 (19)	102 (81)	

\* p<0.05  
χ<sup>2</sup> test a:Fisher's exact probability test

**Table 4:** Concerns about coping with stress caused by treatment

	n=201				
	Non-supportive	(%)	Supportive	(%)	P value
Gender					
Female	33	(17)	166	(83)	0.698
Male	0	(0)	2	(100)	a
Age					
Less than 44 years old	15	(14)	89	(86)	0.429
More than 45 years old	18	(19)	79	(81)	
Education					
Less than a college degree	32	(19)	139	(81)	0.034*
University degree or higher	1	(3)	29	(97)	
Years of experience as a nurse					
Less than 19 years old	14	(16)	72	(84)	0.963
More than 20 years old	19	(16)	96	(84)	
Years of experience as an outpatient nurse					
Less than 7 years old	20	(17)	96	(83)	0.713
More than 8 years old	13	(15)	72	(85)	
Position					
Non-Manager	22	(15)	122	(85)	0.361
Manager	11	(21)	42	(79)	
Is there a Certified Nurse Specialist in Cancer Nursing					
No	32	(74)	11	(26)	0.143
Yes	80	(51)	77	(49)	
Is there a Certified Nurse					
No	6	(14)	37	(86)	0.612
yes	27	(17)	130	(83)	
Category of a Certified Nurse					
There is a no Certified Nurse in Palliative Care	13	(18)	58	(82)	0.788
There is a Certified Nurse in Palliative Care	14	(17)	70	(83)	
There is a no Certified Nurse in Cancer Chemotherapy Nursing	8	(35)	15	(65)	0.032*
There is a Certified Nurse in Cancer Chemotherapy Nursing	19	(14)	113	(86)	a
There is a no Certified Nurse in Cancer Pain Management Nursing	17	(14)	101	(86)	0.077
There is a Certified Nurse in Cancer Pain Management Nursing	10	(27)	27	(73)	
There is a no Certified Nurse in Breast Cancer Nursing	19	(18)	87	(82)	0.807
There is a Certified Nurse in Breast Cancer Nursing	8	(16)	41	(84)	
There is a no Certified Nurse in Radiation Oncology Nursing	17	(18)	76	(82)	0.729
There is a Certified Nurse in Radiation Oncology Nursing	10	(16)	52	(84)	
Number of hospital beds					
Less than 499 beds	14	(19)	60	(81)	0.480
More than 500 beds	19	(15)	107	(85)	

\* p&lt;0.05

χ<sup>2</sup> test a:Fisher's exact probability test

#### 4. DISCUSSION

Among psychological concerns, item (1), 'Information on peer support', received the least support, with only 40% of outpatient nurses supporting it.

Furthermore, only 26% of the outpatient nurses in departments without certified nurses provided support. Yamaguchi et al.'s 'Summary of the actual condition survey report on the worries and burdens of cancer survivors' [9] found that the best way for cancer patients to obtain information and support to ease their worries and burdens is to talk about their experiences and interact with others/peers, however, in reality, about 70% of the participants obtained such information from doctors, pharmacists, and nurses.

According to the 'Fact-finding Survey on Consultation Support for Cancer Patients by Private Organisations' commissioned by the Ministry of Health, Labour, and Welfare [10], the best way to consult with private organisations is to talk with people suffering from cancer.

Additionally, 66.7% of patients with cancer who used the consultation support provided by private organisations responded that it 'made them feel better' and about 90% of these patients wanted to continue using it.

Based on this situation, the Ministry of Health, Labour, and Welfare has stipulated that the base hospitals responsible for cancer care coordination must also coordinate supporting patient activities, such as support groups jointly

operated by medical personnel, patient associations, and regular patient discussion groups [11]. However, the types of activities and the support content for such support groups and patient discussion groups have not been standardised. In light of the above, it is necessary to raise awareness among cancer care hospitals' outpatient nurses that they must provide information about peer support, such as patient groups and patient discussions.

Regarding item (2), 'Information on the patient consultation service' for psychological concerns, about 70% of the participants recognised that they were supported, and the support group was significantly larger among outpatient nurses working in hospitals with 500 or more beds. Cancer care hospitals are required to establish a cancer consultation support centre and assign one trained consultation support staff member [12]. However, more than 40% of the patients who visited cancer care hospitals did not know there was a cancer consultation support centre [13]. Although many outpatient nurses collaborate between the patient counselling centre and outpatient nurses, which help reduce the burden of psychological concerns, it is necessary to improve the provision of information and create an environment that can provide further support.

Approximately 80% of outpatient nurses supported item (3) 'concerns related to coping with stress caused by treatment'. Further, the support group was significantly larger among outpatient nurses in departments with certified nurses in cancer chemotherapy nursing and outpatient nurses with a university degree or higher.

Among the free comments in this study, the majority of outpatient nurses (44%) indicated 'inadequate staffing' as an issue when providing support. In addition to the development of a system, research should also be conducted to determine the effects of knowing about consultation support at an early stage, receiving support when needed, and the resulting improvements in the quality of medical care provided.

#### 5. CONCLUSION

We conducted an online survey of outpatient nurses working at cancer care hospitals to determine the current status of support for the psychological concerns of outpatients with cancer.

Approximately 70% of the outpatient nurses were aware that they were providing support for the psychological concerns of cancer patients. However, the number of nurses providing information on peer support was the lowest. It should be noted that the number one reason for consulting private organisations that provide consultation support for cancer patients and others was 'I want to talk



with people who are suffering from the same thing as I am', which poses a future challenge for outpatient nurses.

We divided the attributes into two groups, analysed the trends, and further subdivided them to analyse them in more depth.

## ACKNOWLEDGEMENTS

We would like to thank all the outpatient nurses in Japan who completed the questionnaire for this study.

This work was supported by Grant-in-the Home Health Care Grant and the Yumi Memorial Foundation.

## REFERENCES

1. Ministry of Health, Labour, and Welfare; Annual total of vital statistics monthly report in 2018 (final figures). Official website, <https://www.mhlw.go.jp/bunya/kenkou/gan03/pdf/1-2.pdf> (Accessed 2019.10.10).
2. Ministry of Health, Labour, and Welfare. The cancer control act. Official website, <https://www.mhlw.go.jp/bunya/kenkou/gan03/pdf/1-2.pdf> (Accessed 2019.10.10).
3. Ministry of Health, Labour, and Welfare; Revised the cancer control act. Official website, <https://www.mhlw.go.jp/file/05-Shingikai-10904750-Kenkoukyoku-Gantaisakukenkouzoushinka/0000146908.pdf> (Accessed 2019.10.10).
4. Ministry of Health, Labour, and Welfare; Overview of patient survey. Official website, <https://www.mhlw.go.jp/toukei/saikin/hw/kanja/17/dl/toukei.pdf> (Accessed 2019.10.10).
5. Takashi, Y., Inagaki, M., Yonemoto, N., Iwasaki, M., Inoue, M., Akechi, T., Iso, H., Tsugane, S., and JPHC Study Group; Death by suicide and other externally caused injuries following a cancer diagnosis; The Japan public health center-based prospective study. *Psycho-Oncology*, 23(9), pp.1034-1041, 2014.
6. Ministry of Health, Labour, and Welfare; Patient experience survey report. National Cancer Centre, Centre for Cancer Control, and Information Services Official website, [https://www.ncc.go.jp/jp/cis/divisions/health\\_s/H30\\_all.pdf](https://www.ncc.go.jp/jp/cis/divisions/health_s/H30_all.pdf) (Accessed 2021.05.27).
7. Ministry of Health, Labour, and Welfare; Promotion of team-based medicine (Report of the study group on the promotion of team-based medicine). Official website; <https://www.mhlw.go.jp/shingi/2010/03/dl/s0319-9a.pdf> (Accessed 2019.10.10).
8. Kazuma, K.; The outpatient nurses, Japan Nursing Association, 2018.
9. Takeru, Y., et al.; Summary version of a survey report on the worries and burdens of cancer survivors, 2016. <https://www.scchr.jp/cms/wp-content/uploads/2016/07/2013taikenkoe.pdf> (Accessed 2019.10.10).
10. Ministry of Health, Labour, and Welfare; Commissioned consultation support project for cancer patients, etc.: FY2039 Report on the actual status of consultation support for cancer patients, etc., by private organizations, 2020. Navid Corporation official website, <https://www.mhlw.go.jp/content/000623676.pdf> (Accessed 2020.10.21).
11. Ministry of Health, Labour, and Welfare; Notification of the Director-General of the Health Bureau: Guidelines for the development of hospitals for cancer care, 2008. Official website, <https://www.mhlw.go.jp/content/000347080.pdf> (Accessed 2020.08.10).
12. Lunney, J. R., Lynn, J., Daniel J. F., Lipson, S., and Guralnik, J. M.; Patterns of functional decline at the end of life. *JAMA*, 289(18), pp.2387-2392, 2003.
13. National Cancer Center, Cancer Control Information Center; Research on the development of progress management evaluation indicators and the establishment of a measurement system for cancer control, Cancer Control in Japan in terms of indicators, 2015. Official website, [https://www.ncc.go.jp/jp/cis/divisions/health\\_s/health\\_s/020/06health\\_s\\_03\\_cancer\\_control\\_all.pdf](https://www.ncc.go.jp/jp/cis/divisions/health_s/health_s/020/06health_s_03_cancer_control_all.pdf) (Accessed 2021.01.10).



Arisa TANAKA (Member)

Arisa Tanaka received her Master's degree from the Graduate School of Nursing, Juntendo University. Currently a researcher at the Pictogram Research Institute, Aoyama Gakuin University. Her research interests include Oncology nursing in the outpatient setting and the use of pictograms in the long-term care sector. e-mail address : arisa.o.happy@gmail.com

### Satoru IWASE (Non-member)

Satoru Iwase, MD., PhD. is a professor at Saitama Medical University. Iwase received his PhD from the University of Tokyo in 2009. Iwase is the CEO of a Cancer patient support organization (Cancer Net Japan, NPO) and a Clinical trial support organization (Japanese Organization for Research and Treatment Cancer, NPO). Iwase's main research themes are palliative medicine, community medicine, and clinical trial data management. mail address: iwase.satoru@1972.saitama-med.ac.jp

### Yoji INOUE (Non-member)

Yoji Inoue is a visiting professor at the Open University of Japan and a guest research advisor at Accelight Inc. Formerly senior researcher at the National Cancer Center and professor at the Open University of Japan. PhD (health sciences from the University of Tokyo). Research interests include health sociology and chronic illness nursing. Main research themes and approaches are QOL survey research of PLWHA and Participatory Research. e-mail address:yoji2006jp@yahoo.co.jp