

Table 4
Activity of Pharmacists in Palliative Care Research

Activity	n (%)
Presentation of research results	
Presentation of research results concerning palliative care to scientific society:	
main speaker	181 (60)
cospeaker	181 (60)
Contribution of research results concerning palliative care to scientific journal:	
main author	21 (6.9)
coauthor	41 (14)
Classification of research	
Clinical research concerned with palliative care currently	102 (34)
Basic research (pharmacology, pharmacodynamics, and pharmaceuticals) concerning drugs used in palliative care	23 (7.6)

Some percentages do not add up to 100% because of missing data.

Pharmacist-Perceived Contributions to a Palliative Care Team, and the Reasons Why Pharmacists Believed That They Could Not Contribute

Although 70% of the pharmacists reported some level of contribution to a palliative care team, 16% reported that they could not contribute (Table 5). The main perceived reasons for no contribution were insufficient time (90%) and/or staff (68%).

Discussion

This study is, to our knowledge, the first nationwide survey to clarify the pharmacist's clinical, educational, and research activities on a palliative care team. The first important finding of this study was clarification of pharmacists' clinical activity on the palliative care

team of a designated cancer hospital, with 79% and 94% of them attending ward rounds and conferences, respectively. Similar data from a previous study in Japan indicated that the percentage of such activity was 61% and 78%, respectively, in designated cancer hospitals.⁸ In the present study, half of the palliative care team pharmacists surveyed provided information/suggestions about opioids to team staff more than once per week. In Australia and Canada, approximately 70% of pharmacists were involved in the administration, adverse effects, and interactions of drugs as part of a palliative care team.¹ Taken together, these findings suggest that an individual pharmacist's clinical activity appears increased by the dissemination of palliative care in Japan, and these results are similar to those from elsewhere.

The second important finding was clarifying pharmacists' educational and research activities on a palliative care team. Approximately 80% of pharmacists had organized a conference to educate other disciplines about palliative care in their own hospital, and approximately 60% of pharmacists had presented research results on palliative care to a scientific society. These activity rates are higher than those found in the previous study in Australia and Canada,¹ suggesting that Japanese pharmacists may place more emphasis on their educational and research roles compared with clinical work.

A third important finding indicated that 70% of the pharmacists reported some level of contribution to a palliative care team. However, 16% of pharmacists reported that they could not contribute, with the main reason

Table 5
Reasons Given by Pharmacists Who Believed They Could Not Contribute

Reasons	Agree or Strongly Agree
	n (%)
Insufficient time	44 (90)
Insufficient staff	32 (68)
Insufficient knowledge of cancer pathology	24 (49)
Insufficient knowledge of medical equipment used in palliative care	23 (47)
Lack of experience in caring for palliative care patients	22 (45)
Insufficient knowledge of drugs used in palliative care	15 (31)
Lack of communication among palliative care team members	7 (14)

Some percentages do not add up to 100% because of missing data.

given as lack of sufficient time (90%) and/or staff (68%). More time and human resources might improve pharmacist-perceived contributions to a palliative care team and, what is more, better patient management.

Limitations

This study had several limitations. First, the response rate of this survey was 77%, and thus the role of the remaining nonresponding pharmacists was unclear. The current status of pharmacists' activities on palliative consultation teams nationwide, therefore, might be overestimated. However, this response rate is comparable to other investigations of designated cancer hospitals,⁹ and thus we believe it is an acceptable limitation. Second, the study did not investigate an individual pharmacist's work time on the palliative care team; instead, we evaluated the frequency of clinical activity per week. Third, we did not examine the stock management of opioids because in Japan pharmacists working in the dispensary, not on the palliative consultation team, perform this role.

Conclusion

In Japan, pharmacists have a moderate level of clinical activity on the palliative care team. Many perceive that they contribute to the team, and, in general, place more emphasis on their educational and research roles compared with clinical work. Future studies should focus on the effects of pharmacist intervention on patient outcomes and/or usefulness for physicians and nurses.

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Original Article

Progressive Development and Enhancement of Palliative Care Services in Japan: Nationwide Surveys of Designated Cancer Care Hospitals for Three Consecutive Years

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Abstract

Context. Policymaking plays an important role in national palliative care services. The Japanese Cancer Control Act was implemented in 2006.

Objectives. To evaluate changes in the structure and processes of palliative care services after implementation of the Cancer Control Act.

Methods. We conducted annual nationwide surveys in designated cancer care hospitals (DCCHs, $n = 349$) between 2008 and 2010. The 65-item questionnaire was divided into seven domains: institutional framework, information to patient and family, practice of palliative care, activities of the palliative care teams (PCTs), members of PCTs, regional medical cooperation, and education. Increasing trends were tested using generalized estimating equation models.

Results. The response rates were $\geq 99\%$. All domains showed an increasing trend ($P < 0.001$). There were significant increases in full-time PCT physicians (27.4%–45.7%, $P_{trend} < 0.001$), full-time PCT nurses (38.9%–88.0%, $P_{trend} < 0.001$), and the median number of annual referrals to PCTs (60–80 patients, $P < 0.001$). Essential drugs were available in most DCCHs from baseline. Although outpatient clinics increased significantly (27.0%–58.9%, $P_{trend} < 0.001$),

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community outreach programs did not (9.0%–12.6%, $P = 0.05$). Basic education was actively introduced for in-hospital physicians and nurses (78.2% and 91.4% in 2010), but often unavailable for regional health care providers (basic education for regional physicians and nurses: 63.9% and 71.1% in 2010).

Conclusion. The Cancer Control Act promoted the development and enhancement of palliative care services in DCCHs. Regional medical cooperation and education are the future challenges of palliative care in Japan. *J Pain Symptom Manage* 2014;48:364–373. © 2014 American Academy of Hospice and Palliative Medicine. Published by Elsevier Inc. All rights reserved.

Key Words

Palliative care services, nationwide survey, designated cancer care hospital, palliative care education, regional medical cooperation

Introduction

Palliative care is specialized care designed to relieve suffering and improve the quality of life of patients with life-threatening illness and their caregivers.¹ It is considered an indispensable part of public health care.^{2,3} Many organizations and investigators have identified several areas important to the development of national palliative care services.^{4–8} Key issues are 1) adequate policymaking, 2) access to palliative care services and essential drugs, 3) coordination of medical care, and 4) education for general health care providers and specialists.^{4–8}

The Japanese government implemented the Cancer Control Act in 2006 to provide comprehensive cancer care across the country.⁹ It addressed the provision of palliative care from an earlier stage and throughout the course of the disease as one of the highest priority issues in cancer care. Designated cancer care hospitals (DCCHs) have played a central role in the development of standardized and high-quality comprehensive cancer care in Japan. DCCHs are required to staff specialist physicians, such as oncologists, radiotherapists, and palliative care physicians, and to play the role of regional hub in cancer care. In 2008, the government revised the certification requirements for DCCHs, requiring them to 1) set up a palliative care team (PCT) comprising a full-time physician, a psychiatrist, a full-time nurse, and a pharmacist; 2) operate an outpatient clinic; 3) convene a PCT conference weekly; 4) provide information to patients and families; 5) organize discharge support

for patients; and 6) provide palliative care consultation to regional health care providers. This revision caused an increase in the number of DCCHs. There were 51 prefectural (Japan's administrative units) DCCHs, 344 regional DCCHs, and two National Cancer Centers in Japan (a total of 397) as of April 2013.¹⁰ As of 2013, there were at least three DCCHs in each prefecture. These hospitals cover approximately 67% of incident cancer cases in Japan.¹⁰

We conducted three annual nationwide surveys from 2008 to 2010, covering all types of DCCHs to clarify 1) the current status of palliative care in Japan, 2) the effect of policymaking on national palliative care services, and 3) the future challenges. Here, we present the results of these surveys, highlight key issues that have improved over the study period, and identify important areas in which improvement is still necessary.

Methods

Design, Participants, and Procedures

We conducted three annual nationwide surveys from 2008 to 2010, commissioned by the Ministry of Health, Labour and Welfare. We mailed self-report questionnaires to all DCCHs identified in publications from the Ministry¹¹ each year (353 DCCHs in 2008, 378 in 2009, and 377 in 2010). If a response was not returned within a month, we sent a reminder to DCCH. The 349 DCCHs that completed all three annual surveys were eligible for the present study.

Questionnaire

Items for the questionnaire were generated in two steps. First, a draft was prepared based on the Cancer Control Act,⁹ the Basic Plan to Promote Cancer Control Programs,¹² the revised certification requirements for DCCHs, and the previously established Japanese guideline for hospital-based PCTs.¹³ Second, items were selected through an experts' discussion among two palliative care physicians (T. M., M. Mo.), one general practitioner (Y. H.), two certified nurse specialists (M. U., F. K.), and one researcher (M. Mi.). The final questionnaire consisted of 65 items and was divided into seven domains: I. Institutional Framework, II. Information to Patient and Family, III. Practice of Palliative Care, IV. Members of PCTs, V. Activities of PCTs, VI. Regional Medical Cooperation, and VII. Education. We asked hospital administrators, directors of palliative care divisions, and directors of regional medical cooperation divisions to answer the questionnaires. All items were designed to require "yes" or "no" answers. In addition, we collected data about hospital size, annual number of cancer patients admitted, number of in-hospital physicians, presence or absence of PCTs and palliative care units, and annual consultations by PCTs.

The Palliative Care System in Japan

PCT and Financial Base. Setting up a PCT consisting of a full-time PCT physician, a psychiatrist, a full-time PCT nurse, and a pharmacist is one of the certification requirements for DCCHs and institutions certified to receive an additional fee for palliative care (4000 Yen [approximately US\$40] per patient per day) from the national insurance. This additional fee for palliative care is the financial base for palliative care in general wards. As of February 2012, 158 institutions (124 DCCHs and 34 others) were certified for the additional fee.^{14,15} Full-time PCT physicians and full-time PCT nurses were defined as those who dedicate more than 80% of their time to PCT activities.

The Education Program of Basic Palliative Care. The Japanese Society for Palliative Medicine developed the "Palliative care Emphasis program on symptom management and Assessment for Continuous medical Education" (PEACE) with support from the Ministry of

Health, Labour and Welfare in 2008. PEACE was designed to teach basic palliative care techniques, such as symptom management and communication skills, to all health care providers who engage in cancer care. As of October 2012, 34,309 physicians had completed the program.^{14,15}

Statistical Analysis

We used descriptive statistics to summarize the characteristics of DCCHs surveyed. Values are expressed as n (%) or median (interquartile range). For the longitudinal data, the proportions of DCCHs that satisfied each item of palliative care service are described in percentages. We also calculated the changes in sufficiency levels of the items from 2008 to 2010. Increasing trends in the items over three years were assessed using general estimating equation models with binomial logit links and unstructured working correlations and described as P_{trend} . In the general estimating equation models, we entered the presence or absence of each item (dichotomous values) as a dependent variable and year of survey (continuous values) as an independent variable to adjust for intra-institutional correlations in the three-year survey. Improvement was defined as a 20% or more increase in the item from 2008 to 2010. An item was considered sufficient if it had an 80% or greater satisfaction rating in the 2010 survey. To compare the improvement and sufficiency levels among the seven domains, we calculated the average sufficiency levels of the items in each domain. The three-year difference in the averaged levels was tested using analysis of variance for repeated measurements. Statistical analyses were performed using PASW Statistics 18.0 (SPSS Inc., Chicago, IL).

Results

Response Rates

The survey response rates were excellent for the three consecutive years (100% in 2008, 100% in 2009, and 99% in 2010). A few institutions did not participate in the 2010 survey because their certification as a DCCH would be revoked in the next year.

Characteristics of the Surveyed DCCHs

The characteristics of the surveyed DCCHs are presented in Table 1. The average DCCH

Table 1
Characteristics of the Surveyed DCCHs in 2010
 (n = 349)

Hospital Characteristics	Values
Hospital size (total beds of hospital)	
<400 Beds	60 (17.2)
400–599 Beds	135 (38.7)
600–799 Beds	95 (27.2)
≥800 Beds	59 (16.9)
Median	566 (430–700)
Annual number of admitted cancer patients	
<1000 Persons	45 (12.9)
1000–1999 Persons	111 (31.8)
2000–2999 Persons	83 (23.8)
3000–3999 Persons	48 (13.8)
≥4000 Persons	62 (17.8)
Median	2257 (1407–3468)
Number of in-hospital physicians	103 (64–177)
Type of DCCH	
National Cancer Center	2 (0.6)
Prefectural DCCH	49 (14.0)
Regional DCCH	298 (85.4)
Type of hospital	
General hospital	250 (71.6)
University hospital	69 (19.8)
Specialized cancer center	30 (8.6)
Palliative care unit in the hospital, yes	62 (17.8)
Palliative care team in the hospital, yes	349 (100.0)
Annual referrals to palliative care team, persons	80 (40–137)
Certification for the additional fee-for-palliative care, yes	83 (23.8)

DCCH = designated cancer care hospital.
 Values are expressed as median (interquartile range) or n (%).

was a large hospital with more than 500 beds and 100 in-hospital physicians that admitted more than 2000 cancer patients per year. A majority of DCCHs were regional DCCHs (85.4%) and general hospitals (71.6%). Palliative care units were available in 17.8%. All DCCHs had PCTs because setting up a PCT is one of the certification requirements. The proportion of DCCHs certified for the “additional fee for palliative care” was 23.8%.

Changes in Structure and Processes of Palliative Care Services Over the Three Years

The longitudinal data, arranged according to the seven major domains, are presented in Table 2.

Domain I: Institutional Framework. Declaration of PCT activity (I-3) and clarification of the division (I-5) was sufficient from baseline. Declaration of philosophy and goals of in-hospital (I-1) and regional (I-2) palliative

care significantly improved but were not sufficient in 2010. All items in this domain revealed an increasing trend except for the item “meeting between hospital administrator and palliative care director” (I-7).

Domain II: Information to Patient and Family. Information services through Web site and newsletter (II-1), public notice (II-2), and booklet (II-3) were available in most DCCHs. However, provision of library service and Internet access (II-4) was not enough to satisfy. Disclosure of the achievement of palliative care service to the public (II-5) was available in less than one-quarter of DCCHs. All items of this domain showed a significant improvement over the three years.

Domain III: Palliative Care Practice. The proportion of physicians engaging in cancer care and licensed for opioid prescription (III-3) was high throughout the surveys. Essential drugs for palliative care, including opioids (III-4), adjuvant analgesics (III-5), octreotide (III-6), and atypical antipsychotics (III-7), were available in almost all DCCHs. At the start of opioid therapy, pharmacists instructed (III-13) in most DCCHs. Self-management of opioids by the patient (III-14) became common in Japan; however, it was not available in nearly 30% of DCCHs. Radiotherapy for bone metastasis (III-8) could be performed in most DCCHs (95.1% in 2010). However, consultation by a psychiatrist (III-11, 60.7%–64.5%, $P_{\text{trend}} = 0.10$) or interventional pain management by a pain clinician (III-9, 62.1%–61.5%, $P_{\text{trend}} = 0.80$) did not improve over the three years.

Domain IV: Members of PCTs. Placement of a full-time PCT physician (IV-1) increased (27.4%–45.7%, $P_{\text{trend}} < 0.001$) but needed further improvement. Full-time PCT nurses (IV-4) increased significantly and became sufficient over the three years (38.9%–88.0%, $P_{\text{trend}} < 0.001$). At least one pharmacist belonged to the PCT in most DCCHs (IV-6, 93.4%–97.7%, $P_{\text{trend}} = 0.004$). Implementation of the Cancer Control Act might have promoted these trends. In 50%–70% of surveyed DCCHs, various medical experts such as social workers (VI-7), managerial dieticians (VI-8), rehabilitation specialists (VI-9), and clinical

Table 2
Changes in Structure and Processes of Palliative Care Services in the Surveyed DCCHs From 2008 to 2010 (n = 349)

Questionnaire Items	Year			Change ^a	P _{trend} ^b
	2008	2009	2010		
I. Institutional framework					
I-1: Official declaration of philosophy and goals of in-hospital palliative care	45.7	55.5	68.0	22.3	<0.001
I-2: Official declaration of philosophy and goals of regional palliative care	27.2	35.5	49.1	21.9	<0.001
I-3: Official declaration of principles of PCT activity	90.0	94.0	96.3	6.3	<0.001
I-4: Written procedure of consultation of PCT	89.7	93.7	97.1	7.4	<0.001
I-5: Clarification of division of palliative care and PCT in the hospital	89.9	93.1	98.3	8.4	<0.001
I-6: Documentation of annual plan for palliative care service	41.6	48.1	54.6	13.0	<0.001
I-7: Meeting between hospital administrator and palliative care director	73.6	74.4	76.5	2.9	0.29
II. Information to patient and family					
II-1: Information via Web site and newsletter	54.3	69.8	89.4	35.1	<0.001
II-2: Public notice for palliative care counseling counter in the hospital	59.1	85.4	95.4	36.3	<0.001
II-3: Distribution of information booklet	55.3	76.4	87.6	32.3	<0.001
II-4: Provision of in-hospital library service and Internet access	34.6	49.6	55.2	20.6	<0.001
II-5: Disclosure of achievements of palliative care service to the public	11.3	19.5	24.6	13.3	<0.001
II-6: Disclosure of achievements of palliative care service to hospital staff	55.9	62.7	67.6	11.7	<0.001
II-7: Consultation for palliative care at the patient counseling counter	81.9	90.1	94.8	12.9	<0.001
III. Practice of palliative care					
III-1: Adoption of a standard pain rating scale in the hospital	78.2	87.9	90.8	12.6	<0.001
III-2: Preparing a palliative care manual in the hospital	58.2	65.6	71.3	13.1	<0.001
III-3: Possessing a license to prescribe opioids for all in-hospital physicians engaging in cancer care	92.2	92.5	91.5	-0.7	0.76
III-4: Availability of essential opioid formulations	92.8	98.0	98.6	5.8	<0.001
III-5: Availability of adjuvant analgesics (anticonvulsants, antidepressants, and ketamine)	94.0	96.0	98.0	4.0	0.003
III-6: Availability of octreotide	96.8	99.7	99.7	2.9	0.01
III-7: Availability of atypical antipsychotics	98.8	99.4	99.7	0.9	0.18
III-8: Radiotherapy for bone metastases	91.6	93.7	95.1	3.5	0.01
III-9: Interventional pain management (nerve block) by a pain clinician	62.1	63.2	61.5	-0.6	0.80
III-10: Placement of at least one psychiatrist in the hospital	63.2	66.5	69.3	6.1	0.003
III-11: Provision of face-to-face consultation for psychological symptoms by a psychiatrist	60.7	63.0	64.5	3.8	0.10
III-12: Nutritional support by nutrition support team	82.4	87.1	88.5	6.1	0.01
III-13: Instruction on the new use of opioid by a pharmacist	88.1	93.7	95.9	7.8	<0.001
III-14: Self-management of opioid by a patient	64.2	65.5	72.0	7.8	0.01
III-15: Placement of at least one social worker responsible for palliative care	68.7	71.1	74.6	5.9	0.03
IV. Members of PCTs					
IV-1: Placement of one full-time PCT physician	27.4	36.7	45.7	18.3	<0.001
IV-2: Placement of at least one physician in PCT completed train-the-trainer program of palliative care	N/A	78.5	96.6	N/A	<0.001
IV-3: Placement of at least one psychiatrist in PCT completed train-the-trainer program of psycho-oncology	N/A	44.7	60.2	N/A	<0.001
IV-4: Placement of one full-time PCT nurse	38.9	56.8	88.0	49.1	<0.001

(Continued)

Table 2
Continued

Questionnaire Items	Year			Change ^a	P _{trend} ^b
	2008	2009	2010		
IV-5: Placement of at least one certified nurse in PCT	57.0	70.5	80.2	23.2	<0.001
IV-6: Placement of at least one pharmacist in PCT	93.4	96.0	97.7	4.3	0.004
IV-7: Placement of at least one social worker in PCT	72.5	76.2	78.2	5.7	0.02
IV-8: Placement of at least one managerial dietician in PCT	54.0	57.3	60.6	6.6	0.01
IV-9: Placement of at least one rehabilitation specialist in PCT	42.9	49.3	52.7	9.8	<0.001
IV-10: Rehabilitation specialist completed training course of cancer rehabilitation	37.3	43.1	52.2	14.9	<0.001
IV-11: Placement of at least one clinical psychologist in PCT	49.9	55.5	58.9	9.0	0.001
V. Activities of PCTs					
V-1: Annual referral to the PCT greater than 50 patients	53.9	65.0	76.4	22.5	<0.001
V-2: Direct medical care by PCT at least once a week and by any member of PCT on day shift	75.6	82.8	89.7	14.1	<0.001
V-3: Direct medical care by any member of PCT at least 3 times a week	55.9	61.0	75.6	19.7	<0.001
V-4: Consultation contents of physical and psychological symptoms except cancer pain greater than 20%	66.0	73.3	82.8	16.8	<0.001
V-5: Ward round and conference by PCT at least once a week	78.8	89.7	96.3	17.5	<0.001
V-6: Recording of consultation service by PCT	93.7	98.0	98.0	4.3	0.01
V-7: Management of patient database by PCT	88.8	92.0	96.0	7.2	<0.001
VI. Regional medical cooperation					
VI-1: Discharge meetings with clinics and home-visit nursing stations in the region	48.7	56.2	65.6	16.9	<0.001
VI-2: Consultation service for clinics and home-visit nursing stations in the region	79.8	85.4	93.1	13.3	<0.001
VI-3: Community outreach by PCT member	9.0	9.5	12.6	3.6	0.05
VI-4: Outpatient clinic open to the region	27.0	39.5	58.9	31.9	<0.001
VI-5: Annual meeting with clinics and home-visit nursing stations in the region	47.7	51.3	53.2	5.5	0.10
VII. Education					
VII-1: Financial support of palliative care training for staff	65.0	72.0	78.1	13.1	<0.001
VII-2: Annual budget to conduct a workshop	56.8	71.5	95.1	38.3	<0.001
VII-3: Educational activities for in-hospital physicians with PEACE	N/A	35.3	78.2	N/A	<0.001
VII-4: Educational activities for in-hospital physicians without PEACE	N/A	57.5	58.0	N/A	0.86
VII-5: Educational activities for regional physicians with PEACE	N/A	33.4	63.9	N/A	<0.001
VII-6: Educational activities for regional physicians without PEACE	N/A	42.9	45.0	N/A	0.54
VII-7: Provision of on-the-job training for regional physicians	7.2	8.1	6.9	-0.3	0.94
VII-8: Educational activities for in-hospital nurses	94.2	90.2	91.4	-2.8	0.17
VII-9: Educational activities for regional nurses	68.1	66.1	71.1	3.0	0.36
VII-10: Provision of on-the-job training for regional nurses	15.6	19.9	19.5	3.9	0.09
VII-11: Training course of communication skills in the hospital	19.5	25.9	39.8	20.3	<0.001
VII-12: Training course of cancer rehabilitation in the hospital	14.7	19.6	21.9	7.2	0.004
VII-13: Dispatch of instructors for palliative care training courses in the region	72.2	81.0	90.2	18.0	<0.001

DCCH = designated cancer care hospital; PCTs = palliative care teams; N/A = not available; PEACE = Palliative care Emphasis program on symptom management and Assessment for Continuous medical Education.

Values are expressed in %.

^aChanges between the 2008 and 2010 surveys.

^bP_{trends} were calculated using general estimating equation models adjusted for the year of the survey.

psychologists (VI-11) were working on PCTs. All items of this domain indicated an incremental trend.

Domain V: Activities of PCTs. The median number of annual referrals to PCTs increased significantly, from 60 (28–120) to 80 (40–137) over the three years ($P < 0.001$). More than three-quarters of the surveyed DCCHs had a PCT with greater than 50 referrals a year (V-1). Most PCTs provided direct medical care (V-2) and convened a conference and ward rounds (V-5) at least once a week. An increasing trend was seen in all items of this domain.

Domain VI: Regional Medical Cooperation. Many Japanese DCCHs collaborated with regional medical institutions through discharge meetings (VI-1, 65.6% in 2010) and through the consultation service (VI-2, 93.1% in 2010). Community outreach programs were not available in most DCCHs (VI-3, 9.0%–12.6%, $P_{\text{trend}} = 0.05$). Outpatient palliative care clinics needed a further increase (VI-4, 27.0%–58.9%, $P_{\text{trend}} < 0.001$).

Domain VII: Education. Basic palliative care education programs for in-hospital (VII-3) and regional physicians (VII-5) were being developed using the PEACE program across the country. Education for nurses (VII-8, 9) was highly available beginning with the 2008 survey. On-the-job training for regional health care providers (VII-7, 10) was not available in most DCCHs. In-hospital palliative care education programs related to communication skills (VII-11) and cancer rehabilitation (VII-12) were insufficiently provided. Most DCCHs

prepared an annual budget for education and training activities in 2010 (VII-2, 56.8%–95.1%, $P_{\text{trend}} < 0.001$).

Comparison Among the Major Domains

All seven domains showed an increasing trend over the three years. Among them, domains III (Members of PCTs), VI (Regional Medical Cooperation), and VII (Education) showed lower sufficiency levels than the others (Table 3).

Discussion

Cancer Control Programs have been implemented in DCCHs in Japan. After the formulation of the Cancer Control Act in 2006, palliative care services in these hospitals have improved significantly. Analysis of our surveys revealed 1) institutional framework, such as declaration of philosophy and goals of palliative care, improved substantially; 2) information to patient and family displayed the best advance; 3) the practice of palliative care was high throughout the surveys; 4) full-time PCT physicians and nurses significantly increased, but other medical professionals, except pharmacists, working on PCTs did not increase; 5) the number of referrals to PCTs increased slightly but significantly, whereas PCT activity expanded gradually; 6) regional medical cooperation, including outpatient clinics and community outreach programs, needed further advancement; and 7) basic education for physicians had been introduced nationwide, using PEACE programs; however, education for regional health care providers was not common in Japan. In addition to the implementation of

Table 3
Comparison of the Averaged Sufficiency Levels Among the Seven Domains ($n = 349$)

Domains	Year			Change ^a	P^b
	2008	2009	2010		
I. Institutional framework	65.6	70.6	77.2	11.6	<0.001
II. Information to patient and family	50.2	64.6	73.6	23.4	<0.001
III. Practice of palliative care	79.4	82.8	84.7	5.3	<0.001
IV. Members of PCTs	55.9	61.9	68.6	12.7	<0.001
V. Activities of PCTs	73.3	80.2	87.8	14.5	<0.001
VI. Regional medical cooperation	42.4	48.4	56.6	14.2	<0.001
VII. Education	47.7	50.9	55.4	7.7	<0.001

PCTs = palliative care teams.

Average values of each domain are expressed in %.

^aChanges between the 2008 and 2010 surveys.

^bCalculated using analysis of variance for repeated measurements.

the Cancer Control Act, this three-year survey itself contributed to these improvements by clarifying the concrete actions necessary to develop palliative care services. Structural changes, such as institutional framework and information delivery, were the first to be improved to meet the requirements of the law because they can be set up with relative ease. Staffing PCTs with more specialists, regional medical cooperation, and education are the next challenges. The relative insufficiency in these areas might reflect the additional costs and manpower required compared with preparation of the institutional framework and information services. Among the issues raised by the surveys, the insufficiency of regional medical cooperation was most important because being the hub among regional medical institutions is one of the fundamental roles of DCCHs.

Development and enhancement of palliative care is recognized as an important health care issue. The American Society of Clinical Oncology has declared that palliative care should be integrated into comprehensive cancer care.² The European Association for Palliative Care has placed access to palliative care as a human right.³ Previous reports have identified several subject areas to consider when developing and disseminating palliative care.⁴⁻⁸ The World Health Organization Public Health Strategy highlighted that appropriate policymaking is the key component to enhance national palliative care services, in addition to drug availability, education, and implementation of palliative care services.⁴ The European Association for Palliative Care pointed out five important domains, including policy, access to palliative medications, education, quality measurements, and research.⁵ Behmann et al. proposed that integration of generalist and specialist palliative care and strengthening generalist palliative care were the top priorities to improve palliative care.^{6,7} Key common issues in the development of palliative care are policymaking, access, coordination of care, and education.⁴⁻⁸

Nationwide surveys of the major cancer centers are necessary to describe the current status of national palliative care services. Hui et al. conducted a nationwide mail survey of 101 U.S. cancer centers in 2009.¹⁶ The availability of palliative care service, defined as the presence of at least one palliative care physician,

was 92% in National Cancer Institute cancer centers and 74% in non-National Cancer Institute cancer centers. Inpatient PCTs were available in 74% of the centers surveyed. Of them, 80% and 47% of PCTs had full-time physicians and nurses, respectively. Poor reimbursement and limited institutional resources were cited as the major barriers to the enhancement of palliative care services. Japan shares these same issues. Additional strengths of the present study were the fact that it was a complete census and its longitudinal design, which allowed us to assess the effects of policymaking on the development and enhancement of national palliative care services.

We found that essential drugs for palliative care, including opioids, adjuvant analgesics, and others, were accessible across Japan. However, it is known that the total amount of opioid consumption in Japan is much lower than that in other Western countries.¹⁷ An additional study is needed to assess opioid accessibility, opioid consumption, and symptom relief. The number of full-time PCT physicians and nurses increased significantly. Even so, PCT physicians, psychiatrists, and pain clinicians were not available in many DCCHs. This finding may reflect a lack of specialists in this field and poor staff compensation.¹⁸ Absence of a psychiatrist was one of the major barriers to be certified for "additional fee for palliative care." Poor reimbursement and lack of palliative care specialists could become a vicious cycle in many DCCHs. Regional medical cooperation was offered at outpatient clinics or through community outreach programs. Opening an outpatient clinic was one of the certification requirements for DCCHs, and this item increased by 31.9%. Community outreach programs were available in 12.6% of DCCHs. A recent regional intervention study in Japan demonstrated the possibility of educational visits by palliative care specialists to improve palliative care outcomes in the region.¹⁹ Regional medical cooperation may be the focus of future health care challenges. The development of PEACE promoted a significant improvement in basic palliative care education to physicians engaged in providing cancer care. Specific education programs for specialists are necessary.

Several limitations of this study should be noted. First, our results could be biased

because we collected recalled information. Second, the outcomes of palliative care services were not assessed. Because the major aim of the study was clarifying the structure and processes of palliative care in Japan, outcome measurement was beyond the scope of this survey. Third, we could not evaluate the effects of the increased availability of palliative care in DCCHs observed in this study on overall medical cost because of lack of data. Finally, this survey indicated changes over a relatively short period of time after the revision of the national cancer program. We plan to replicate the survey in 5–10 years to evaluate the long-term effects of policymaking on palliative care services nationwide.

The present study indicates the future direction of palliative care in Japan. More than 80% of terminally ill cancer patients died in hospitals in Japan in 2011,²⁰ although as shown in one population-based survey, most Japanese people considered home as the preferred place of death.²¹ Concerns about burden on family caregivers, sudden disease exacerbation, availability of home care, and expense are the major barriers to dying at home.²² Regional cooperation, including community outreach by palliative care specialists of DCCHs, could play the key role in increasing concordance between preferred and actual place of death. Future studies, including measurement of palliative care outcomes such as home death rate, quality of care, and quality of life at the end of life, are warranted. In addition, to develop and disseminate palliative care to non-cancer populations is another indispensable issue in Japan because a recent survey among DCCHs showed that the proportion of non-cancer patients was only 2.5% of the total number of patients referred to PCTs.²³

In conclusion, this three-year nationwide survey with excellent response rates demonstrated that the formulation of the Cancer Control Act allowed a significant advance in the national palliative care services of Japan. The number of physicians and nurses engaging in palliative care increased substantially; however, our study highlighted the difficulties of improving areas that need a large workforce. More outpatient clinics and outreach programs are needed to use regional medical resources. Although basic education for in-hospital physicians and nurses has

developed during the three-year period, education for regional health care providers was insufficient. Regional medical cooperation and palliative care education may be the health care challenge in the next decade of palliative care in Japan.

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Psychologists involved in cancer palliative care in Japan: A nationwide survey

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ABSTRACT

Objective: The aim of this study was to clarify, using a nationwide survey, what is perceived as necessary knowledge and skills for psychologists involved in cancer palliative care in Japan, the expectations of medical staff members, and the degree to which these expectations are met.

Method: We conducted a questionnaire survey of psychologists involved in cancer palliative care. A total of 419 psychologists from 403 facilities were asked to fill out the questionnaire and return it anonymously. Some 401 psychologists (89 males, 310 females, and 2 unspecified; mean age, 37.2 ± 9.5 years) responded about necessary knowledge and skills for psychologists working in cancer palliative care, the necessity for training, expectations at their current workplace, and the degree to which expectations are met.

Results: More than 90% of participants responded that many kinds of knowledge and skills related to the field of cancer palliative care are necessary. Over 80% of participants indicated a necessity for training related to these knowledge and skills. Although more than 50% (range, 50.1–85.8%) of participants responded that such services as “cooperation with medical staff within a hospital,” “handling patients for whom psychological support would be beneficial,” and “assessment of patients’ mental state” were expected at their workplace, fewer than 60% (31.4–56.9%) responded that they actually performed these roles.

Significance of Results: Our results show that many psychologists in cancer palliative care feel unable to respond to the expectations at their current workplace and that they require more adequate knowledge and skills related to cancer palliative care to work effectively. No other nationwide surveys have generated this type of information in Japan, so we believe that the results of our study are uniquely important.

KEYWORDS: Psychologist, Cancer palliative care, Nationwide survey, Knowledge and skills, Expectations at the workplace

INTRODUCTION

The Cancer Control Act and the Basic Plan to Promote Cancer Control Program were approved

and implemented during June 2007 in Japan. The Basic Plan emphasizes the importance of palliative care, including assistance for physical and emotional suffering at the beginning of treatment. As a result, an increasing number of psychologists now contribute to cancer palliative care. As defined by the World Health Organization (WHO), “Palliative care is an approach that improves the quality of life of patients

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and their families facing the problems associated with life-threatening illness, through the prevention and relief of suffering by means of early identification, and impeccable assessment and treatment of pain and other problems, physical, psychosocial, and spiritual” (Sepúlveda et al., 2002). Palliative care is a holistic multi-professional approach based on skilled assessment and management of symptoms and related problems (Higginson & Evans, 2010). Multiple medical professionals collaborating as a team need to understand the roles and values of other team members (Shibusawa, 2002). However, the role of psychologists is not specified in the Basic Plan. As a result, many psychologists work in cancer palliative care without fully understanding their purpose (Iwamitsu et al., 2009).

The role of psychologists involved in cancer palliative care has been discussed in case reports and clinical experiences (Kurihara, 2010; Ono et al., 2011). Kodama and colleagues (2007) surveyed services provided by clinical psychologists in cancer palliative care and reported that they provide “consultation with palliative care team members,” “counseling and psychotherapy for patients with cancer,” “psychological interventions for their families,” and “psychological support for the other palliative care providers.” Iwamitsu and coworkers (2009) conducted focus-group interviews of physicians and nurses regarding the role of psychologists in cancer palliative care with a particular emphasis on what is expected of the palliative care team. Their results demonstrated that psychologists are expected to communicate with other medical professionals based on a broad knowledge of cancer treatments and utilize their expertise to provide psychological support to patients, family members, and other medical professionals.

Although the services provided by and roles played by psychologists in cancer palliative care have been better defined as a result of these studies, we cannot truly understand the current situation in Japan because these studies did not cover all the psychologists involved in cancer palliative care. To this end, for the present study we conducted a nationwide survey of psychologists involved in cancer palliative care in Japan. Given that palliative care in Japan is mainly directed to cancer patients, psychologists in cancer palliative care were defined as those who were involved to some extent with cancer patients from diagnosis through to the terminal phase. Based on the results of our study, we have clarified the perception of what constitutes the necessary knowledge and skills for psychologists working in cancer palliative care, the expectations of other medical staff members, and the degree to which these expectations are met.

PARTICIPANTS AND METHODS

Participants

The subject pool included cancer palliative care psychologists from 1185 facilities. The facilities included all designated cancer hospitals as of June 2009 (315 of them), as well as all clinical training and university hospitals, excluding designated cancer hospitals as of June 2009 (834). Clinical training and university hospitals were included given the high probability that they were involved in cancer treatment. Because it was not possible to specifically identify psychologists at each facility, we used a double-envelope system. We sent one copy of the questionnaire to facility representatives with a participation request and explanation of the study. We also mailed five copies of the questionnaire for distribution to psychologists involved in cancer palliative care with a participation request and explanation.

Institutional representatives were asked to note their affiliation and the number of psychologists who worked at their facility and the number and affiliation of the psychologists to whom the questionnaire was distributed. Of the 1185 facilities, 403 responded (response rate, 34%). Among the 403 facilities, 136 did not employ psychologists and 267 employed 490 psychologists, including 326 full- and 164 part-time psychologists.

A total of 419 psychologists in cancer palliative care were provided with the questionnaire, which they were asked to fill out and return anonymously. A response was considered a consent to participate. A total of 401 psychologists responded (response rate, 95.7%), including 89 males, 310 females, and 2 unspecified, with a mean age (*SD*) of 37.2 (9.5) years. The study was approved by the ethics committee of the Kitasato University School of Medicine.

Questionnaire

The questionnaire was designed according to a literature review and the opinions of psychologists with five or more years of experience in cancer palliative care, professionals with experience in psycho-oncology, and other researchers. The document consisted of five main categories:

1. Basic participant characteristics, including sex, age, educational background, years of clinical experience, current workplace, whether or not the workplace employs psychologists and psychiatrists, clinical psychology qualifications, annual income, among others.
2. Knowledge and skills related to the field of cancer palliative care, including 28 items about the

Table 1. Participant characteristics

Sex			
Male		89	
Female		310	
Unspecified		2	
Age			
Mean \pm SD = 37.2 \pm 9.5 (range, 25–69)			
Clinical experience, years			
Mean \pm SD = 10.9 \pm 9.2 (range, 0.2–42)			
Clinical experience, years in medical field			
Mean \pm SD = 9.60 \pm 8.8 (range, 0.2–42)			
Clinical experience, years in cancer palliative care			
Mean \pm SD = 3.2 \pm 3.6 (range, 0–21)			
		<i>n</i>	<i>%</i>
Employment status			
Part-time		104	25.9
Full-time		288	71.8
Unspecified		9	2.2
Participation in cancer palliative care			
Cancer palliative care unit			
Absence		310	77.3
Presence		81	20.2
Unspecified		10	2.5
Cancer palliative care team			
Absence		52	13.0
Presence		341	85.0
Unspecified		8	2.0
Participation on cancer palliative care team			
Nonparticipation		134	33.4
Participation		257	64.1
Unspecified		10	2.5

“necessity of knowledge and skills in cancer palliative care” and “necessity of training” (see Table 2). We asked participants to rate on a 4-point scale ranging from “0: unnecessary” to “3: necessary,” and collapsed these into the two categories of “unnecessary (0 or 1)” and “necessary (2 or 3)” for reporting purposes.

- Work duties related to cancer palliative care, which included 22 items about “expected roles at current workplace” and “extent to which roles are actually performed” (see Table 3). On “expected roles at current workplace,” we asked participants to rate on a 4-point scale ranging from “0: not expected at all” to “3: often expected,” and collapsed these into two categories of “not expected (0 or 1)” and “expected (2 or 3)” for reporting purposes. On “extent to which roles are actually performed,” we asked participants to rate on a 4-point scale ranging from “0: often perform” to “3: do not perform at all,” and collapsed these into two categories of “perform (0 or 1)” and “not perform (2 or 3)” for reporting purposes.
- Working conditions related to cancer palliative care at the present workplace, where subjects were asked what percentage of their duties

during the past year were related to cancer palliative care, total number of cases, patients, and breakdown of types of work.

- Problems faced by psychologists working in cancer palliative care, where subjects were asked to write freely about the troubles or hardships they have experienced while working in cancer palliative care.

We analyzed necessary knowledge and skills in cancer palliative care, expected roles in the workplace, and the extent to which roles are actually performed based on questionnaire answers in categories 1 (basic characteristics), 2 (knowledge and skills related to the field of cancer palliative care), and 3 (work duties related to cancer palliative care).

Analysis

To investigate the knowledge and skills that psychologists working in cancer palliative care feel are necessary, we evaluated “necessary” items with high percentages. We also evaluated “necessary” items with high percentages to examine the knowledge and skills for which psychologists in cancer palliative care require training. To investigate expected roles at the current workplace, we evaluated “expected” items with high percentages. To examine the extent to which the roles were actually performed, we evaluated the percentage of “perform” responses.

RESULTS

Participant Characteristics

The sample consisted of 89 males, 310 females, and 2 of unspecified gender. The mean age (*SD*) was 37.2 (9.5) years. The mean number of years of clinical experience (*SD*) was 10.9 (9.0). The mean number of years of medical experience (*SD*) was 9.6 (8.8), and the mean number of years of experience in cancer palliative care (*SD*) was 3.2 (3.6). A total of 81 psychologists (20.2%) worked at hospitals with a palliative care unit. Some 341 psychologists (85.0%) indicated that their hospital had a palliative care team, and 257 psychologists (64.0%) participated in such a team (Table 1).

Necessary Knowledge and Skills in Cancer Palliative Care and Training

Regarding knowledge and skills in cancer palliative care, almost every item was considered necessary by more than 80% of participants. Items with “necessary” responses of more than 90% included

Table 2. *Necessity of knowledge, skills, and training in cancer palliative care*

	Necessity of Knowledge and Skills in Cancer Palliative Care			Necessity of Training Related to Knowledge and Skills in Cancer Palliative Care		
	Unnecessary ^a (%)	Necessary ^b (%)	No. of Valid Responses <i>n</i> = 401	Unnecessary ^c (%)	Necessary ^d (%)	No. of Valid Responses <i>n</i> = 401
Basic knowledge of cancer palliative care	0.8	99.2	389	4.6	95.4	388
General psychological state of cancer patients	0.8	99.2	389	2.8	97.2	388
Various psychological issues of the cancer patient's family or bereaved family members	0.8	99.2	389	2.3	97.7	386
Mental symptoms observed in cancer patients and treatment or symptomatic therapy	1.0	99.0	389	3.6	96.4	386
Medical ethics	1.5	98.5	389	6.2	93.8	389
Psychosocial problems specific to types of tumors	1.8	98.2	387	4.7	95.3	387
Symptoms and pathology of psychiatric disorders	1.8	98.2	389	9.0	91.0	388
Stress experienced by medical practitioners in cancer palliative care	2.3	97.7	388	6.7	93.3	389
Basic knowledge about cancer	3.6	96.4	386	5.7	94.3	385
Physical symptoms other than pain and symptomatic therapy	3.9	96.1	388	8.2	91.8	388
Sleep disorders and therapy	3.9	96.1	387	7.8	92.2	387
Psychological assessment skills	3.9	96.1	389	11.4	88.6	387
Knowledge and skills of psychological therapy	3.9	96.1	388	10.9	89.1	387
Basic knowledge of cancer treatment	4.1	95.9	389	6.2	93.8	388
Cancer-related pain and its treatment	4.2	95.8	385	8.3	91.7	384
Diagnostic procedures for psychiatric disorders	5.9	94.1	388	12.6	87.4	388
Medications for psychiatric disorders	6.5	93.5	385	12.8	87.2	384
Knowledge of specific tumors	7.0	93.0	387	11.6	88.4	389
Healthcare and social welfare systems for patients with cancer	8.0	92.0	388	14.9	85.1	388
Cancer diagnostic tests	8.9	91.9	383	14.4	85.6	383
Policies such as the Cancer Control Act	11.1	88.9	389	16.7	83.3	389
Basic knowledge of safety management	11.2	88.8	383	18.6	81.4	381
Psychological and behavioral factors related to carcinogenesis	12.3	87.7	389	17.0	83.0	389
Study methodology of psycho-oncology	15.9	84.1	389	23.5	76.5	388
Global trends in psycho-oncology	17.8	82.2	388	26.3	73.7	388

Continued

Table 2. Continued

	Necessity of Knowledge and Skills in Cancer Palliative Care			Necessity of Training Related to Knowledge and Skills in Cancer Palliative Care		
	Unnecessary ^a (%)	Necessary ^b (%)	No. of Valid Responses <i>n</i> = 401	Unnecessary ^c (%)	Necessary ^d (%)	No. of Valid Responses <i>n</i> = 401
Knowledge of skills and psychological tests to administer	19.8	80.2	388	22.4	77.6	388
Knowledge of pathological conditions that may require emergency treatment in the course of cancer therapy	20.4	79.6	388	25.6	74.4	387
EBM and clinical trials	38.8	61.2	387	43.4	56.6	385

^a Derived by adding the frequencies of "0: unnecessary" and "1: somewhat unnecessary."

^b Derived by adding the frequencies of "2: somewhat necessary" and "3: necessary."

^c Derived by adding the frequencies of "0: unnecessary" and "1: somewhat unnecessary."

^d Derived by adding the frequencies of "2: somewhat necessary" and "3: necessary."

20 items, such as "basic knowledge of cancer palliative care" (99.2%), "general psychological state of cancer patients" (99.2%), and "various psychological issues of the cancer patient's family or bereaved family members" (99.2%) (see Table 2).

Regarding training to obtain knowledge and skills, almost every item was considered "necessary" by more than 80% of participants. Items with percentages over 90% included 13 items, for example, "various psychological issues of the cancer patient's family or bereaved family members" (97.7%), "general psychological state of cancer patients" (97.2%), and "mental symptoms observed in cancer patients and treatment or symptomatic therapy" (96.4%) (Table 2).

Psychologist-Perceived Roles as Expected by Medical Staff Members at Their Current Workplace and the Extent to Which Roles Are Actually Performed

Psychologist-perceived expected roles at the present workplace, with percentages above 50%, comprised 12 items, including "cooperation with medical staff other than clinical psychologists within a hospital" (85.8%) and "handling patients for whom psychological support would be beneficial, regardless of whether there is a mental disorder" (81.7%) (Table 3).

Regarding the extent to which roles are actually performed, the percentage of "perform" responses was 21.4–56.9%, including "cooperation with medical staff other than clinical psychologists within a hospital" (56.9%), "assessment of patients' mental state" (49.4%), and "handling patients diagnosed with mental disorders" (48.7%) (Table 3). None of the items received more than 60% "perform" responses from participants.

DISCUSSION

Necessary Knowledge and Skills and the Necessity of Training for Psychologists in Cancer Palliative Care

More than 90% of participants responded that almost every item represented necessary knowledge and skills related to cancer. More than 80% of participants indicated a necessity for training in these items. These results reflect the relatively short mean number of three years of clinical experience in cancer palliative care and the lack of established education programs for psychologists in cancer palliative care in Japan (Iwamitsu et al., 2013). In the West, services provided by clinical psychologists in the medical setting have been called "clinical health psychology" since the 1990s (Belar & Deardorff, 1995). Even then, the differences between clinical health psychology and traditional psychology or health psychology and training of clinical health psychologists were debated (Marzillier & Hall, 1999). In Japan, the importance of psychologists being involved in cancer palliative care was stipulated by the 2007 Cancer Control Act. In addition, the 2012 Basic Plan for Cancer Control Measures stated that psycho-oncologists and psychologists involved in cancer palliative care should receive education related to providing psychological support for cancer patients and their families. The number of psychologists in cancer palliative care has increased rapidly during recent years. Although participants in this survey had more than 10 years of experience as clinical psychologists and approximately 10 years of experience working in medical settings, the average length of clinical experience in cancer palliative care was 3

Table 3. *Psychologist-perceived roles as expected by medical staff members at their current workplace and the extent to which the roles are actually performed*

	Psychologist-Perceived Expected Roles at Present Workplace			Extent to Which Roles Are Actually Performed		
	Not Expected ^a (%)	Expected ^b (%)	No. of Valid Responses <i>n</i> = 401	Not Performed ^c (%)	Perform ^d (%)	No. of Valid Responses <i>n</i> = 401
Cooperation with medical staff other than clinical psychologists within a hospital	14.2	85.8	386	43.1	56.9	390
Handling patients for whom psychological support would be beneficial, regardless of whether there is a mental disorder	18.3	81.7	387	58.4	41.6	392
Assessment of patients' mental state	23.1	76.9	385	50.6	49.4	389
Handling patients diagnosed with mental disorders	27.6	72.4	387	51.3	48.7	392
Handling family members for whom psychological support would be beneficial, regardless of whether there is a mental disorder	29.8	70.2	386	68.6	31.4	389
Mental health care for medical staff members	33.1	66.9	378	66.3	33.7	383
Comprehending a patient's perception of his/her disease	38.1	61.9	386	58.1	41.9	387
Identifying specific problems of and necessary care for patients and family members	38.4	61.6	383	64.0	36.0	389
Assessment of mental state of patient's family members	39.1	60.9	386	61.5	38.5	387
Scholarly activity	46.1	53.9	386	71.6	28.4	387
Comprehending a patient's basic information	48.6	51.4	387	52.6	47.4	390
Handling family members diagnosed with mental disorders	49.9	50.1	387	67.8	32.2	385
Comprehending the perception of a patient's family regarding the patient's disease	51.8	48.2	386	68.5	31.5	391
Helping to adjust family relationships	56.3	43.8	384	73.7	26.3	388
Handling bereaved family members for whom psychological support would be beneficial, regardless of whether there is a mental disorder	63.4	36.6	382	77.2	22.8	378
Responding after a patient, family member, or medical practitioner committed suicide	66.8	33.2	382	78.6	21.4	373
Group intervention for patients	69.7	30.3	386	76.0	24.0	383
Assessment of bereaved family members' mental state	71.5	28.5	386	76.4	23.6	377
Educational intervention for patients and their families	73.2	26.8	384	76.2	23.8	383
Handling bereaved family members diagnosed with a mental disorder	75.3	24.7	384	77.5	22.5	377
Collaboration with those outside the hospital	76.9	23.1	385	74.7	25.3	384
Assessment and handling of patient's physical symptoms	78.0	22.0	386	63.1	36.9	382

^a Derived by adding the frequencies of "0: not expected at all" and "1: rarely expected."

^b Derived by adding the frequencies of "2: sometimes expected" and "3: often expected."

^c Derived by adding the frequencies of "2: rarely perform" and "3: not perform at all."

^d Derived by adding the frequencies of "0: often perform" and "1: sometimes perform."

years. This suggests that many psychologists in cancer palliative care provide services without adequate training.

The participants indicated a necessity for medical knowledge and skills, including such items as “medical ethics,” “symptoms and pathology of psychiatric disorders,” “diagnostic procedures for psychiatric disorders,” and “medications for psychiatric disorders.” More than 80% of participants indicated a need for training in these areas. Ebana (2005) noted that psychologists in the medical field should acquire medical knowledge. Other studies have suggested that psychologists cannot play a role in medical settings due to inadequate graduate medical education (Sakano, 2004; Miyaoka, 2005; Murayama et al., 2005). Psychologists in cancer palliative care likely have similar issues as those in other medical settings.

Psychologist-Perceived Roles Expected in the Workplace and the Extent to Which Roles Are Actually Performed

Psychologist-perceived roles expected from medical staff members at their present workplace included such issues as “cooperation with medical staff other than clinical psychologists within a hospital,” “handling patients for whom psychological support would be beneficial,” and “assessment of patients’ mental state.” The percentages of “perform” responses for every item were low (21.4–56.9%) relative to those of “expected” responses.

Specifically, the percentage of “expected” responses was 85.8% for “cooperation with medical staff other than clinical psychologists within a hospital,” while the percentage of “perform” responses was 56.9%. Although there are no clear criteria to determine if psychologists in cancer palliative care are fulfilling their roles, the fact that at least 70% of participants responded with “perform” suggests that psychologists in cancer palliative care are for the most part actually fulfilling their roles. It follows that psychologists involved in cancer palliative care cannot necessarily cooperate with medical staff other than clinical psychologists even though the percentage of “perform” responses about this role was highest. This suggests that psychologists in cancer palliative care should continue to strive for cooperation with other medical staff members within a hospital.

With regard to the role of psychological intervention in cancer palliative care, the figures were as follows: “handling patients for whom psychological support would be beneficial” (expected, 81.7%; perform, 41.6%), “handling patients diagnosed with mental disorders” (72.4, 48.7%), “handling family members for whom psychological support would be beneficial” (70.2, 31.4%), “comprehending a patient’s

perception of his/her disease” (expected, 61.9, 41.9%), “identifying specific problems of and necessary care for patients and family members” (expected, 61.6, 36.0%), and “handling family members diagnosed with mental disorders” (expected, 50.1, 32.2%). Additionally, the roles of psychological assessment in cancer palliative care—“assessment of patients’ mental state” (expected, 76.9%) and “assessment of mental state of patient’s family members” (expected, 60.9%)—showed percentages of “perform” responses at 49.4 and 38.5%, respectively. Less than 50% responded that they actually performed these roles. Because the mental state of cancer patients changes as a result of their physical condition, therapeutic course, and treatment side effects, psychologists involved in cancer palliative care must understand and apply knowledge regarding treatment when providing psychological support (Iwamitsu et al., 2009). The percentage of “perform” responses was also low (33.7%) for “mental health care for medical staff members” (expected, 66.9%). Knowledge of cancer palliative care is required in order to fulfill this role as well. In Japan, psychologists are trained in graduate schools that do not have a cancer palliative care curriculum (Iwamitsu et al., 2013). In Europe, the final report of the European Federation of Professional Psychologists’ Associations (EFPPA) specified that clinical health psychologists have a responsibility to become appropriately trained and experienced to ensure that they only practice in areas of their competence, in conformance with the ethical code of the psychology profession. Additionally, the EFPPA noted the necessary components of clinical health psychologist training as follows: (1) academic knowledge base (psychology); (2) academic knowledge base (other); (3) application of psychological skills to health care; (4) research skills; (5) teaching and training skills; (6) management skills; (7) professional issues; and (8) ethical issues (Marks et al., 1998). The results of our study also show that more than 70% of participants felt that both knowledge and skills in cancer palliative care as well as training for psychologists in cancer palliative care are necessary. It follows that most psychologists in cancer palliative care in Japan require adequate knowledge and skills to work effectively.

Although the “expected” percentage for “scholarly activity” was 53.9%, the “perform” percentage was low (28.4%). As stated above, European clinical health psychologists involved in the medical field have a responsibility to acquire research skills in addition to a wide range of knowledge and practical abilities. Given that the “expected” percentage of “scholarly activity” in this study was not low, it seems that psychologists in cancer palliative care in Japan should make an effort to pursue further scholarly activity.

The roles for which the “perform” response was less than 30% included “group intervention for patients” (24.0%), “educational intervention for patients and their families” (23.8%), “assessment of bereaved family members” (23.6%), and “handling bereaved family members” (22.8%), among others. Psychologists in cancer palliative care in Japan may have limited opportunities to fulfill these roles due to the low “expected” percentages involved (22.0–43.8%).

LIMITATIONS OF THE STUDY

There are several limitations to our study. First, we used a double-envelope system in that we sent questionnaires to institution representatives and a questionnaire to the psychologists who worked at those facilities. Questionnaires were distributed to psychologists by institutional representatives. While the response rate of psychologists was 95.7%, the response rate of institutional representatives was 34%. Our results do not necessarily reflect the opinions of psychologists working at facilities in which representatives did not show an interest in the survey. In the future, we will employ a survey technique that reflects the opinions of as many psychologists as possible. Second, although we describe the number of years of experience in medical and cancer palliative care and participation on a palliative care team, evaluations were not performed to address these points. Iwamitsu and colleagues (2013) reported that psychologists in cancer palliative care experience stress related to isolation, anxiety, internal conflicts, and burnout. Thus, future studies should focus on these issues as well as other factors, such as the personality and mental state of the psychologists, to gain a better understanding of the realities faced by psychologists in cancer palliative care in Japan.

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