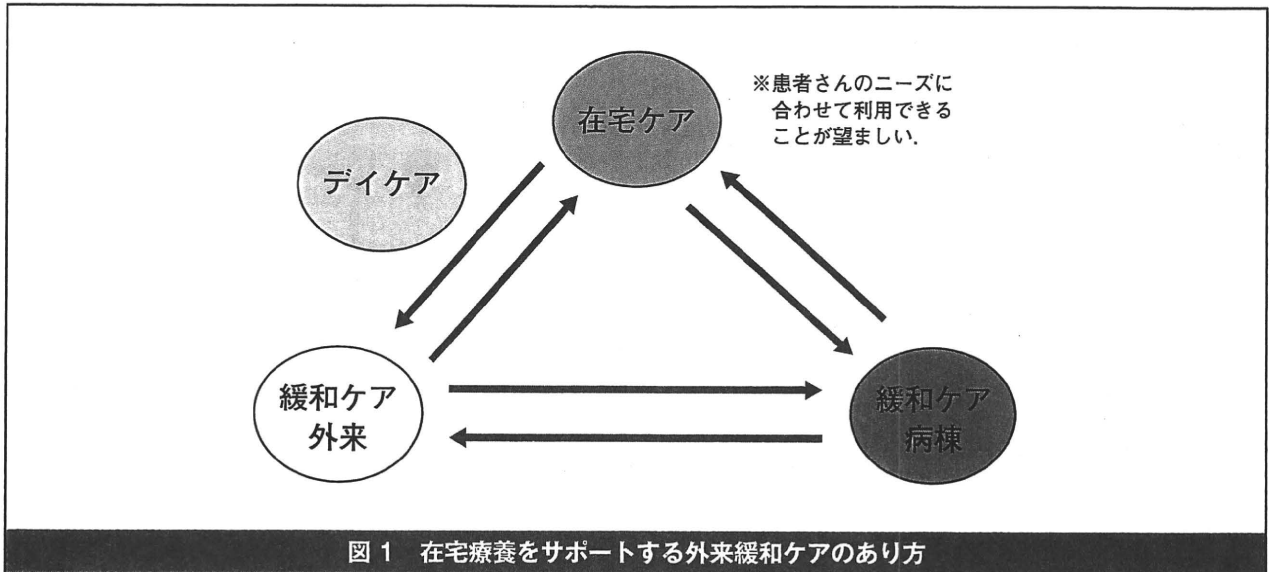


設も少なくありません。多くのデイケアではナース主導で行っていますが、医師や病院牧師、アロマセラピスト、美容師などもメンバーとなっています<sup>1)</sup>。デイケアで提供されている、他者やスタッフとの社会的接触、さまざまな活動を行う機会が得られることについて、患者さん

が高く評価していることがわかっています<sup>1)</sup>。

●日本でも在宅療養が促進されていく中で、今後、デイケアで緩和ケアを提供するシステムの普及が求められます(図1)。



### 外来での緩和ケアとは……

- 症状の緩和はもとより……
- 在宅療養の継続ができるように患者さん・家族のセルフケア能力を高めることが重要。



- 通院患者からの電話相談も効果的。



### ワンポイントアドバイス

患者・家族のセルフケア能力を高めるためにレスキューや下剤の使用方法などを具体的に指導しましょう。できれば電話相談の窓口もあると、安心できるでしょう。精神面については、医療者のほうから話題にしましょう。

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## Role of the Community Pharmacy in Palliative Care: A Nationwide Survey in Japan

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Mitsuru Shiokawa, Ph.D.,<sup>5</sup> and Yoshiyuki Kizawa, M.D.<sup>6</sup>

### Abstract

**Purpose:** The role of the community pharmacy in palliative care may become increasingly important in Japan. There has been however no investigation to date of community pharmacies in Japan that takes into account their role in enabling palliative care in the home. The aims of the present study were thus to evaluate (1) the availability of narcotics through community pharmacies and the experience of pharmacists in prescribing narcotics; (2) availability of patient counseling provided by pharmacists; (3) pharmacist-perceived difficulties in treating cancer patients with narcotics; and (4) useful strategies to make narcotics more easily available to patients.

**Methods:** We sent 3000 questionnaires to community pharmacies as a representative national sample, and 1036 responses were analyzed (response rate: 34.5%).

**Results:** We found that 77% of community pharmacies had a narcotics retailer license, and that approximately 50% received prescriptions for and prepared narcotics each month. Approximately 70% of community pharmacies received however only 3 narcotics prescriptions each month. Half of the pharmacists reported that they did not counsel patients, primarily because they lacked information about the patient. The most common area reported by pharmacists as being extremely difficult was communicating with terminally ill cancer patients. To make narcotics more easily available to patients, 76% of community pharmacists felt it was important to be able to return narcotics to wholesalers.

**Conclusion:** The present study suggests that there are many problems in community pharmacy that need to be addressed to improve access to palliative care in the home, including (1) increased sharing of patient information; (2) increasing community pharmacists' communication skills; and (3) changing current regulations regarding the distribution of narcotics. If these issues are addressed, palliative care in the home could become more widely accepted.

### Introduction

RECENTLY, THE ROLE OF COMMUNITY pharmacies in palliative care has become more important, because community pharmacies provide medications that are necessary in home for symptom relief (e.g. narcotics and anticancer drugs), as well as information regarding those medications. Furthermore, patients who are being cared for at home have better access to local community pharmacies.

In the US, general practitioners acknowledge the role of community pharmacists in managing pain and other symptoms in patients receiving palliative care in the home, as well as providing practical and psychological support for these patients.<sup>1</sup> Furthermore, in the UK, community pharmacists are part of the community palliative care team. These pharmacists receive appropriate training to provide palliative pharmaceutical care, and a recent study has determined that their clinical interventions are likely

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beneficial to patients.<sup>2</sup> Together, these observations support the view that community pharmacists can work effectively as part of a team to provide palliative care for patients in their homes.

In Japan, the number of cancer patients who choose to die home remains relatively low (5–6%). However, following the covering the Home Care Support Medical Office as a part of national health insurance in 2006, enforcement of the Cancer Control Act in 2007, the shortening of the number of days spent in acute-care hospitals, and switching of the provision of most anti-cancer therapy from a hospital setting to the home, developing an effective home-based palliative care system in Japan has become more urgent. These changes are likely to increase the importance of the community pharmacy.

Nonetheless, there is limited information available at present regarding narcotics retailer licenses and the preparation of narcotics by community pharmacies in Japan. There has been no nation-wide investigation into community pharmacies that takes into account their role in the support of palliative care in the home, how the system currently works (i.e. the availability of narcotics and their use as part of the medical care provided at home), and/or any problems with the system that may hinder its wider acceptance. To promote and improve palliative care in the home, these issues need to be evaluated and any problems with the current system need to be identified.

The aims of the present study were thus to examine (1) the availability of narcotics through the community pharmacy and the experience of pharmacists in prescribing narcotics; (2) the availability of patient counseling provided by pharmacists; (3) pharmacist-perceived difficulties in treating cancer patients with narcotics; (4) useful strategies to make narcotics more easily available to those who need them; and (5) pharmacists' backgrounds.

## Materials and Methods

This was an anonymous questionnaire postal survey that was approved by the Ethical Review Board of the Nippon Medical School Hospital.

First, we determined to identify a representative sample of community pharmacies, and 47,186 pharmacies belonging to the Pharmacist Society in all 47 prefectures across Japan were identified using the Society's website (in Japan, almost all pharmacies belong to this society). From this list, 3000 pharmacies were randomly chosen to make up the study population. 3000 questionnaires were mailed out from December 2008 to January 2009. No reminders were sent and no rewards were offered.

## Questionnaire

Owing to the lack of validated instruments, the questionnaire used in the present study was developed after a systematic literature review and discussions among the authors. The face validity of the questionnaire was confirmed in a pilot study. The questionnaire asked pharmacists to comment on: (1) the availability and their experience of prescribing narcotics; (2) the provision of patient counseling by pharmacists; (3) pharmacist-perceived difficulties in treating cancer patients with narcotics; (4) useful strategies to make narcotics more available; and (5) their background.

**Availability and pharmacists' experiences of prescribing narcotics.** We asked pharmacists to comment on the availability of narcotics (i.e. whether the pharmacist had a license to sell narcotics, prepare any type of narcotics, and/or deliver them to a patient's home) and their experience of prescribing narcotics in a community pharmacy (i.e. the number of narcotics prescriptions per month, the annual use of narcotics (amount of money base), and, if narcotics were not stocked in the pharmacy, how prescriptions for narcotics brought into the community pharmacy were filled).

**Availability of patient counseling and patient information.** We determined whether patients were given counseling by community pharmacists (yes/no) after presenting a prescription for narcotics for the first time. In addition, we examined reasons why counseling may not have been available for the patients. We asked community pharmacists to comment on the extent of the patient information available to them (seven items; 'available' or 'not available'; see Table 4) and how important this information was to them when providing patient counseling. Each reason was rated on a four-point Likert-type scale from 'not necessary' to 'essential'.

**Pharmacy-perceived difficulties in treating cancer patients with narcotics.** Pharmacists' perceived difficulties in treating cancer patients with narcotics were evaluated using five items (see Table 5). Pharmacists were asked to rate each item on a five-point Likert-type scale as not difficult, not so difficult, unsure, sometimes difficult, and always difficult.

**Useful strategies to make narcotics more available.** We asked pharmacists to comment on potentially useful strategies to make narcotics more available (five items; see Table 6). Pharmacists were asked to rate each item on a five-point Likert-type scale, ranging from 'not necessary' to 'extremely necessary'.

**Background information.** We asked respondents to provide background information regarding themselves and the community pharmacy as follows. Pharmacists were asked how long they had had a pharmacist's license, the number of cancer patients they saw over the course of 1 year, and how they ensured patient compliance with their instructions regarding the use of narcotics.

With regard to the community pharmacy itself, respondents were asked to provide information regarding the average number of prescriptions per month, whether a private room was available in which the pharmacist could provide instructions to the patient, the preparation and delivery of total parenteral nutrition, and the preparation of intravenous anticancer agents.

## Results

A total of 1036 questionnaires were returned (34.5%). The questionnaires were collected equally regardless of areas, i.e. rural or urban from pharmacies which were privately owned or franchise stores.

## Background information

Background information collected for each of the pharmacists and the community pharmacies is summarized in

TABLE 1. PHARMACISTS' CHARACTERISTICS (N=1036)

Gender	
Male	47.1% (n=488)
Female	52.9% (n=546)
No. years of having a pharmacist's license	23.1 ± 12.3
Experience of hospital duty	57.5% (n=596)
No. years working in a community pharmacy	15.5 ± 10.9
No. sessions of cancer patient counseling over the course of 1 year <sup>a</sup>	
0	25.6% (n=265)
1-10	54.3% (n=563)
11-30	12.5% (n=130)
31-50	2.5% (n=26)
>51	3.2% (n=3)

<sup>a</sup>Patient counseling included providing information to patients as to how to take the prescribed medication. The percentages do not add up to 100% because of missing data.

Tables 1 and 2, respectively. The average time that pharmacists had worked in a community pharmacy was 15.5 years, and approximately 80% of pharmacists reported that they counseled between one and 10 cancer patients over the course of a year (Table 1). The average number of pharmacists in a community pharmacy was 2.7 (Table 2).

**Availability and pharmacists' experiences of prescribing narcotics.** Approximately 50% of community pharmacists actually prepared narcotics and received prescriptions for narcotics each month, although 77% of com-

TABLE 2. BACKGROUND INFORMATION ON THE COMMUNITY PHARMACIES SURVEYED (N=1036)

Average no. pharmacists	2.7 ± 2.1
Average no. prescriptions per month	
0-99	13.2% (n=137)
100-199	5.4% (n=56)
200-499	7.7% (n=80)
500-999	17.9% (n=185)
1000-1499	20.2% (n=209)
1500-1999	13.4% (n=139)
>2000	20% (n=207)
Prescriptions mostly from:	
Tertiary hospital (university, cancer centers)	14.8% (n=154)
General hospital	15.4% (n=160)
Clinic	65.5% (n=679)
Preparation of total parenteral nutrition	0.9% (n=9)
Delivery of total parenteral nutrition	2.7% (n=28)
Preparation of i.v. anticancer agents	0.3% (n=3)
The community pharmacy:	
Prescriptions available at night or during holidays alone	22.8% (n=236)
Prescriptions available at night or during holidays from another institution	16.5% (n=171)
Participates in discharge conferences at hospital	1.9% (n=20)
Participates in meetings with hospital pharmacies	5.3% (n=55)

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

TABLE 3. AVAILABILITY AND PHARMACISTS' EXPERIENCE OF PRESCRIBING NARCOTICS IN A COMMUNITY PHARMACY (N=1036)

Existing condition	
Have a narcotics retailer license	76.7% (n=795)
Preparation of specific types of narcotics	
Oral narcotics	53.6% (n=555)
Parenteral narcotics	0.6% (n=6)
Deliver medications to patients' homes	
Oral narcotics	15.1% (n=156)
Parenteral narcotics	0.7% (n=7)
Experience	
No. narcotics prescriptions per month	
0-0.9	53.8% (n=557)
1-1.9	10.4% (n=108)
2-2.9	8.0% (n=83)
3-3.9	5.2% (n=54)
4-4.9	1.6% (n=17)
5-5.9	2.8% (n=29)
>6	8.9% (n=92)
Annual use of narcotics (amount of money base)	¥410,000 ± 1,750,529 (range 0-20,000,000; median 30,000)

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

munity pharmacies had a narcotics retailer license (Table 3). Parenteral opioids were available in less than 1% of pharmacies.

**Availability of patient educational counseling of pharmacists and patient information.** Of those who responded to the survey, 50% reported that they did not counsel patients. The reason most often given for not counseling patients was a lack of information regarding the patient, i.e.,

TABLE 4. AVAILABILITY OF PATIENT INFORMATION AND ITS USEFULNESS FOR PATIENT COUNSELING (N=1036)

	Current availability	Perceived importance	
	Available (%)	Not necessary or either	Necessary or essential
Disease known	19.7 (204)	5.6 (58)	74.5 (772)
Disclosure of disease to patients	23.3 (241)	2.1 (23)	77.8 (806)
Doctor's explanation of the narcotics	22.7 (235)	5.6 (58)	72.1 (747)
Instructions about:			
The use of a rescue dose	31.4 (325)	2.7 (28)	77.1 (778)
Management of adverse reactions to narcotics	16.3 (169)	5.2 (54)	73.3 (759)
Treatment administered in hospital	6.1 (63)	9.9 (102)	68.8 (712)
Information regarding the use of medicines outside insurance	6.8 (70)	4.8 (50)	73.3 (760)

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

TABLE 5. PHARMACISTS' PERCEIVED DIFFICULTIES IN TREATING CANCER PATIENTS WITH NARCOTICS (N = 1036)

	<i>Sometimes difficult</i>	<i>Extremely difficult</i>
	% (n)	% (n)
Communication with terminally ill cancer patients	27.7 (287)	24.5 (254)
Psychological support of patients	32.1 (333)	14.3 (148)
Psychological support of a patient's family	30.6 (317)	11.2 (116)
Alleviation of physical symptoms other than pain	34.7 (360)	9.3 (96)
Alleviation of pain	36.9 (382)	7.3 (76)

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

they can not obtain medical information from hospitals (41%). Furthermore, over 70% of pharmacists stated that they did not receive information about the patient's medical condition, whether the disease had not been disclosed to the patients, and whether doctors had not explained the use of narcotics to the patients, even though these items were rated as being necessary or extremely necessary for effective patient counseling (Table 4). A private room in which patient counseling could be conducted was available in 4.8% (n = 50) of community pharmacies.

**Perceived difficulties in treating cancer patients with narcotics.** The most common item that pharmacists reported as extremely difficult was communicating with terminally ill cancer patients and providing psychological support for both the patient's family and the patient (Table 5).

**Useful strategies to make narcotics more available.** Over 70% of community pharmacists felt that it was necessary or extremely necessary to be able to return narcotics

TABLE 6. STRATEGIES RECOMMENDED BY PHARMACISTS TO MAKE NARCOTICS MORE WIDELY AVAILABLE (N = 1036)

	<i>Useful</i>	<i>Extremely useful</i>
	% (n)	% (n)
Ability to return narcotics to wholesalers	23.7 (246)	53.6 (555)
Transfer of narcotics from a local stock pharmacy	26.9 (279)	43.9 (455)
Small retail units for narcotics	28.3 (293)	43.5 (451)
Establishment of a quick supply of narcotics from wholesalers	29.8 (309)	40.4 (419)
Simplified procedures to obtain, prescribe, and dispose of narcotics	40.6 (421)	27.3 (283)
Decreased price of narcotics	26.6 (222)	13.2 (110)
An increase in the level of insurance coverage for the cost of narcotics	35.8 (371)	12.9 (134)

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

to wholesalers (76%), to have small retail units for narcotics (71%), to establish a quick supply of narcotics from wholesalers (71%), and to be able to transfer narcotics from a local stock pharmacy (70.8%; Table 6).

## Discussion

In Japan, 77% of community pharmacies have a narcotics retailer license, and approximately 50% of community pharmacists actually prepare narcotics and receive narcotics prescriptions each month. Approximately 70% of community pharmacies however receive only three narcotics prescriptions per month. These results clearly indicate that a system whereby all community pharmacies can supply narcotics to patients who need them has not been established in Japan. The reasons explaining the restricted availability of narcotics include (1) the strict regulation of narcotics and (2) inadequate sharing of patient information between hospitals and community pharmacies.

The distribution of narcotics in Japan is strictly controlled. For example, returning narcotics to wholesalers is not legally allowed, nor can narcotics be transferred from a local stock pharmacy. In the present study, more than 70% of community pharmacists indicated that the management of narcotics would be made easier if they were able to return narcotics to wholesalers and were able to transfer narcotics from a local stock pharmacy when needed. In the US, narcotics can be returned wholesalers and it is also possible for narcotics to be transferred between community pharmacies.<sup>3</sup> It is important that the control of narcotics in Japan is changed to more closely resemble that of other commonly available prescription drugs.

It has been reported that the provision of pain management education to cancer patients improves chronic cancer pain.<sup>4-8</sup> Therefore, patient counseling by community pharmacists is extremely important for the management of pain in cancer patients. However, at present only 50% of pharmacists report that they counsel patients; the reason most often given to explain why patients are not counseled is a lack of information about the patient and his/her condition from hospitals. It is possible that this lack of information also acts as a barrier preventing people bringing in narcotics prescriptions to be filled. In the US, information regarding community pharmacists who have specific training in the areas of oncology, supportive treatment and palliative care is provided to patients in the clinic, and these pharmacists often provide recommendations regarding pain and symptom management to primary care oncologists.<sup>1</sup> Community pharmacists can contribute to the improved management of chronic pain in cancer patients if they are provided with essential medical information regarding the patients who need counseling and then actually provide educational patient counseling.

In addition, there is a resistance to the word "narcotics" in Japan.<sup>9,10</sup> Therefore, some physicians in Japan may not inform patients that they are actually being prescribed narcotics. It is important for patients to understand that they are taking narcotics, and the implications of this, but community pharmacists are not in a position to tell the patients what they are taking. In the US, patients are informed by their physicians if they have been prescribed narcotics. This lack of information provided by physicians regarding the prescription of "narcotics" may be a barrier to the provision of adequate patient counseling by community pharmacists in Japan.

One of the greatest perceived difficulties reported by community pharmacists in the present study was communicating with terminally ill cancer patients. Communication skills are important so as not to cause further anxiety and stress to patients.<sup>11,12</sup> However, there is no opportunity for Japanese community pharmacists to acquire these skills. In contrast, in Australia, the educational needs of community pharmacists to enhance communication skills to provide optimal palliative care have been addressed.<sup>13</sup> It is possible that this lack of communication between pharmacists and patients acts as yet another barrier to the filling of narcotics prescriptions in Japan. In the US, community pharmacists are specifically educated in palliative care and receive training in hospices to provide direct patient care.<sup>1</sup> The provision of in-hospital training of community pharmacists in Japan may improve the current situation. Furthermore, lack of information about patients and their family may be caused to difficulty to provide emotional/psychosocial support.

This study is a large nation-wide representative survey, but has several limitations. Major limitation is low response rate. We believe however this is a fatal fault of this survey, because the number of data analyzed was still considerably large and interpretation is understandable.

Morrison et al.<sup>14</sup> reported that the influence of pharmacies on the availability of narcotics and there were racial and economic disparities in US. However, it is a single race, and there is no so economic disparity in Japan.

In conclusion, in the present study we investigated the availability of narcotics in community pharmacies and the pharmacists' experience of prescription narcotics, the availability of patient counseling in pharmacies, and pharmacist-perceived difficulties in treating cancer patients with narcotics. The results of the present study strongly suggest that there are many problems with the current system, including (1) inadequate sharing of patient information; (2) a lack of communication skills or knowledge on the part of community pharmacists; and (3) the strict control of the distribution of narcotics, all of which hinder the provision of effective palliative care in the home. It is suggested that the acceptance of palliative care in the home may be increased if these problems are resolved.

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**Author Disclosure Statement**

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# Feasibility and usefulness of the ‘Distress Screening Program in Ambulatory Care’ in clinical oncology practice<sup>†</sup>

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An error was subsequently identified. This notice is included in the online and print versions to indicate that both have been corrected [11111109].

<sup>‡</sup>[Correction made here after initial online publication].

## Abstract

**Objective:** Although the implementation of routine screening for distress is desirable, doing so is difficult in today's busy clinical oncology practice. We developed the ‘Distress Screening Program in Ambulatory Care’ (DISPAC program) as a practical means of screening for and facilitating the treatment of major depression and adjustment disorders in cancer patients. This study assessed the feasibility and usefulness of the DISPAC program in actual clinical situations.

**Methods:** As part of the DISPAC program, nurses administered a psychological screening measure, the Distress and Impact Thermometer (DIT), to consecutive cancer patients visiting an outpatient clinic in the waiting room. The attending physician then recommended psycho-oncology service referral to all positively screened patients. We compared the proportion of patients referred to a psycho-oncology service during the DISPAC period with the usual care period.

**Results:** Of the targeted 491 patients treated during the DISPAC period, 91.9% (451/491) completed the DIT; the results were positive in 37.0% (167/451), recommendations for referrals were given to 93.4% (156/167), and 25.0% (39/156) accepted the referral. Ultimately 5.3% (26/491) of the targeted patients were treated by psycho-oncology service as having major depression or adjustment disorders, a significantly higher proportion than during the usual care period (0.3%;  $p < 0.001$ ). The nurses required  $132 \pm 58$  s per person to administer the DIT.

**Conclusions:** The DISPAC program is useful for facilitating the care of cancer patients with psychological distress. Nevertheless, the acceptance of referrals by patients and the reduction of the burden placed on nurses are areas requiring improvement.

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**Keywords:** screening; cancer; oncology; distress; depression

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## Introduction

As cancer is a life-threatening illness, patients may experience strong psychological distress and frequently develop psychiatric disorders such as major depression or adjustment disorders [1]. The prevalence of major depression has been reported to be 3–26%, and the prevalence of adjustment disorders in patients with cancer has been reported to be 4–35% [1–8]. Major depression and adjustment disorders have a negative impact on quality of life [9], patient decision-making regarding cancer treatment [10], the length of the hospital stay [11],

patient suicide [12], and caregiver distress [13]. Since evidence suggests that psychotherapy [14] and pharmacotherapy [15] are effective means of treating these disorders, these treatments should be provided when necessary. Psychological distress, however, is often under-recognized by medical staff members, including oncologists and oncology nurses, in clinical oncology settings [16–18].

Screening is the optimal strategy for detecting diseases (such as major depression and adjustment disorders) that are prevalent, not evident, and treatable and that benefit from early treatment [19]. For physically healthy patients with major

depression, programs that combine psychological screening and adequate collaboration with mental health specialists have been shown to improve psychological symptoms and general functioning [20]. In oncology settings, although less empirical evidence is available than for physically healthy patients, a high risk of depressive disorders has been reported [6], and psychological screening has been shown to be capable of detecting depressive disorders in cancer patients [21,22]; furthermore, psychological interventions have been shown to alleviate depressive disorders detected by psychological screening [23,24]. This evidence supports the efficacy of psychological screening for cancer patients, and guidelines such as the National Comprehensive Cancer Network and the National Institute for Clinical Excellence have recommended routine screening for depressive disorders in clinical practice. However, a limited number of institutions have introduced such programs because of insufficient resources [25], and a practical program that can be implemented in busy clinical settings with limited resources is needed.

Our group has spent several years developing a practical psychological screening program for cancer patients. First, we developed and validated some distress-screening tools [26–28]. Among them, the Distress and Impact Thermometer (DIT), which was developed by modifying the Distress Thermometer [21,27], has shown a high performance and is brief enough to use in busy clinical settings [28]. We next developed and introduced a distress screening and psychiatric referral program as part of a clinical screening protocol targeting hospitalized patients. The feasibility and usefulness of this program has been reported elsewhere [29,30].

Recently, oncology treatment has undergone major changes, and many patients now receive treatment as outpatients [31]. As an inevitable consequence of this transition from inpatient to outpatient care, interactions between patients and the medical staff have decreased, and there is a concern that patient distress is being increasingly under-recognized. In response to this transition in care, we have designed a new program, the 'Distress Screening Program in Ambulatory Care' (DISPAC) program, which can be implemented within the tight schedules of outpatient clinics.

The primary aim of this study was to assess the usefulness of the DISPAC program in real clinical oncology settings. We hypothesized that the use of the DISPAC program would result in the referral of more cancer patients with major depression or adjustment disorders to psycho-oncology services. The secondary aim was to assess the feasibility of the DISPAC program, specifically the implementation of the DIT, the recommendations for referral to psycho-oncology services, and the patients' acceptance of such referrals.

## Method

### Study sample

Consecutive patients visiting the outpatient clinic of the 'Breast and Medical Oncology Division' of the National Cancer Center Hospital (NCCCH), Japan, during the usual care period when DISPAC was not in use and the intervention period when the DISPAC was in use were eligible. The DISPAC period was designated as a 2-week period in June 2008, and the usual care period was designated as the preceding 2-week period. Patients with a non-cancer diagnosis and who were under 18 years of age were excluded from the study.

We estimated that the rate of referral to psycho-oncology services for the treatment of major depression and adjustment disorders was 1% during the usual care period and that a 4% improvement could be obtained during the DISPAC period. At a 5% significance level (two-sided test) and 80% power, a sample size of 285 patients was needed for each period. As the assignment of clinicians to the outpatient clinic changes according to the day of the week, a study period consisting of a multiple of weeks was needed to avoid a physician bias. Since approximately 250 patients visit the outpatient clinic of the 'Breast and Medical Oncology Division' every week, we concluded that a 2-week study period would be adequate for comparing the usual care period and the DISPAC period.

As the implementation of a psychological screening program is a desirable clinical practice recommended by guidelines, the patients in this study were unlikely to be harmed by the study protocol. Since all the data assessed in this study were obtained as part of routine clinical assessments, we did not obtain written consent from the patients, in accordance with the guidelines of the Japanese Ministry of Health, Labor and Welfare. We obtained institutional review board approval for this study in advance.

### Distress and Impact Thermometer

The DIT is a two-item self-administered rating scale. We developed the DIT by adding the Impact Thermometer to the Distress Thermometer [21,27,28]. Each 'distress' and 'impact' question consists of an 11-point Likert scale, with possible scores ranging from 0 to 10 and a high score indicating an unfavorable status.

In our previous study [28], the DIT was validated and the optimal cutoff points for detecting major depression and adjustment disorders were determined to be 4 for the 'distress' score and 3 for the 'impact' score. Patients who scored equal or more than both cutoff points were regarded as positive,



and the sensitivity and specificity of the measure were 0.82 and 0.82, respectively.

### DISPAC procedure

The DISPAC program consists of three stages. In the first stage, consecutive outpatients were approached by nurses in the waiting room prior to the physician's assessment. After a brief instruction, they were invited to complete the DIT and submit the completed form to their attending physicians. As the nurses' time resources were limited and a lengthy period of time could not be spent delivering an introduction, a booklet explaining cancer and distress, the types of care delivered by psycho-oncology services, and how to complete the DIT was given to the patient at the same time as the DIT.

In the second stage, the attending physician played a central role. The physician collected the completed DIT results from the patients and evaluated the screening result. If the patient scored equal to or more than the cutoff points, the physician recommended that the patient consult a psycho-oncology service. If the patient accepted the recommendation, the attending physician called the head of the psycho-oncology service and scheduled a consultation. As returning to the hospital on a separate day would create a burden for the patient, every effort was made to schedule the appointment on the same day. Considering the tight outpatient schedule, the timing of the psycho-oncology service consultation was adjusted so that the patient would not be inconvenienced. For example, if a patient had time between an X-ray examination and treatment in the outpatient chemotherapy center, the spare time was used for the consultation.

In the third stage, the patients were seen by either of the two resident psychiatrists, a psychologist, or a nurse specialist, supervised by a staff psychiatrist, and clinical diagnostic interviews based on the DSM-IV criteria were conducted. At the end of the interview, a staff psychiatrist also saw the patients and confirmed the diagnosis and treatment plan. If the patients were diagnosed as having a psychiatric disorder, the patients were provided with psychotherapy, which was mainly supportive-expressive, and/or pharmacotherapy, depending on the medical needs and the patients' wishes.

### Psycho-oncology service referral during the usual care period

During the usual care period, the attending physician recommended a referral to the psycho-oncology service if they thought that the patient exhibited manifestations of moderate or severe distress. If the patients accepted the

recommendation, they were seen by the psycho-oncology service.

### Outcome measures

The usefulness of the DISPAC was evaluated by calculating the proportion of patients referred for major depression and adjustment disorders, which was the proportion of patients newly referred to the psycho-oncology service and treated for a diagnosis of major depression or adjustment disorders amongst all the patients who visited the outpatient clinic. The number of patients referred to the psycho-oncology service during both the usual care period and the DISPAC period were confirmed using the computerized database of the psycho-oncology division [32].

The feasibility of the DISPAC was measured as follows. The implementation of the DIT was evaluated by calculating the proportion of patients that were screened, which was the proportion of patients who completed the DIT amongst all the patients who visited the outpatient clinic. Also, we measured the amount of time required for the nurse to instruct each patient regarding the use of the DIT on 20 random occasions. The feasibility of the physician's recommendations for referral to the psycho-oncology service was evaluated by calculating the proportion of patients who were recommended to accept a referral, which was the proportion of patients for whom a referral to the psycho-oncology service was recommended amongst all the positively screened patients. We also asked all the physicians who participated in this project how much extra consultation time was required to recommend a referral to the psycho-oncology service. The patients' acceptance of the psycho-oncology service referral was evaluated by calculating the proportion that accepted the referral, which was the proportion of patients who accepted the psycho-oncology service referral amongst all the patients who received recommendations.

### Analysis

The patient characteristics, including information on age, sex, cancer sites, and physician-rated performance status according to the Eastern Cooperative Oncology Group (during the DISPAC period only) were obtained from the patients' charts and were recorded separately for the usual care period and the DISPAC period. The characteristics of the patients treated during the usual care period and the DISPAC period, including age, sex, and cancer sites, were then compared.

The usefulness of the DISPAC was evaluated by comparing the proportion referred for major depression and adjustment disorders during the usual care period and the DISPAC period.

The characteristics of the 'positive' patients who refused the psycho-oncology service referral were evaluated by dichotomizing the recommended patients into an acceptance group and a refusal group and comparing their characteristics and DIT scores.

All statistical analyses were bivariate, and inter-group comparisons of parametric variables, non-parametric variables, and categorical variables were performed between groups using the *t* test, the Mann-Whitney *U* test, and the chi-squared test, respectively. All the tests were two-tailed. All analyses were performed using SPSS 14.0 J for Windows statistical software (SPSS Japan Institute).

## Result

### Patient characteristics

Five hundred and seventy-four patients visited the outpatient clinic of the Breast and Oncology Division of NCCH during the usual care period, and 491 patients visited during the DISPAC period. As presented in Table 1, the characteristics of the eligible patients in each period were comparable in terms of age, sex, and curable or incurable stage, but not in terms of cancer sites. Fewer breast cancer patients and more gynecological cancer patients were seen during the usual care period than during the DISPAC period.

### Usefulness of the DISPAC

During the usual care period, two patients were referred to the psycho-oncology service. Both these patients were diagnosed as having adjustment disorders and received treatment. The proportion

of patients referred for major depression and adjustment disorders during the usual care period was 0.3% (2/574).

During the DISPAC period, 39 patients were referred to the psycho-oncology service as a result of the DISPAC program. Twenty-six patients were diagnosed as having major depression ( $n = 5$ ) or adjustment disorders ( $n = 21$ ) and were treated. Twelve of the other 13 patients did not fulfill the DSM-IV diagnostic criteria for any psychiatric disorders, and the remaining patient was diagnosed as having schizophrenia. The total proportion of patients referred for major depression and adjustment disorders was 5.3% (26/491). The proportion referred for major depression and adjustment disorders during the DISPAC period (5.3%) was significantly higher than that during the usual care period (0.3%;  $p < 0.001$ ).

### DISPAC procedure

Figure 1 shows the numbers of patients recorded at each stage of the DISPAC process. Of the 491 subjects, 451 (91.9%) completed the DIT. The amount of time required for the nurse's instructions ranged from 50 to 1200 s, and excluding one patient who required an unusually long time (1200 s), the mean time was  $132 \pm 58$  s. Of the 451 patients who completed the screening, the results for 37.0% (167/451) were positive.

Among the 167 patients with positive screening results, the attending physicians recommended psycho-oncology service consultations for 156 patients (93.4%). Although the reasons why recommendations were not made were not always recorded, in many cases the patients appeared reluctant to discuss psycho-oncology service recommendations. The physicians estimated that the

**Table 1.** Characteristics of patients before and after the introduction of the Distress Screening Program in Ambulatory Care

	No. of patients (%)		p-Value
	Before introduction of the program	After introduction of the program	
Total patients	574 (100)	491 (100)	
Age (mean $\pm$ SD)	58.3 $\pm$ 11.3	58.0 $\pm$ 11.3	0.621
Female (%)	548 (95.5)	462 (94.1)	0.312
Primary cancer site			0.009
Breast	433 (75.4)	403 (82.1)	
Gynecological	96 (16.7)	43 (8.8)	
Primary unknown	23 (4.0)	22 (4.5)	
Others	22 (3.8)	23 (4.7)	
State			0.519
Stage IV, recurrent or primary unknown	349 (60.8)	289 (58.9)	
Stage I-III	225 (39.2)	202 (41.1)	
Performance status (ECOG) <sup>a</sup>			
0		373 (76.0)	
1		101 (20.6)	
2		11 (2.2)	
3		5 (1.0)	
4		1 (0.2)	

<sup>a</sup>Performance status as defined by eastern cooperating oncology group.

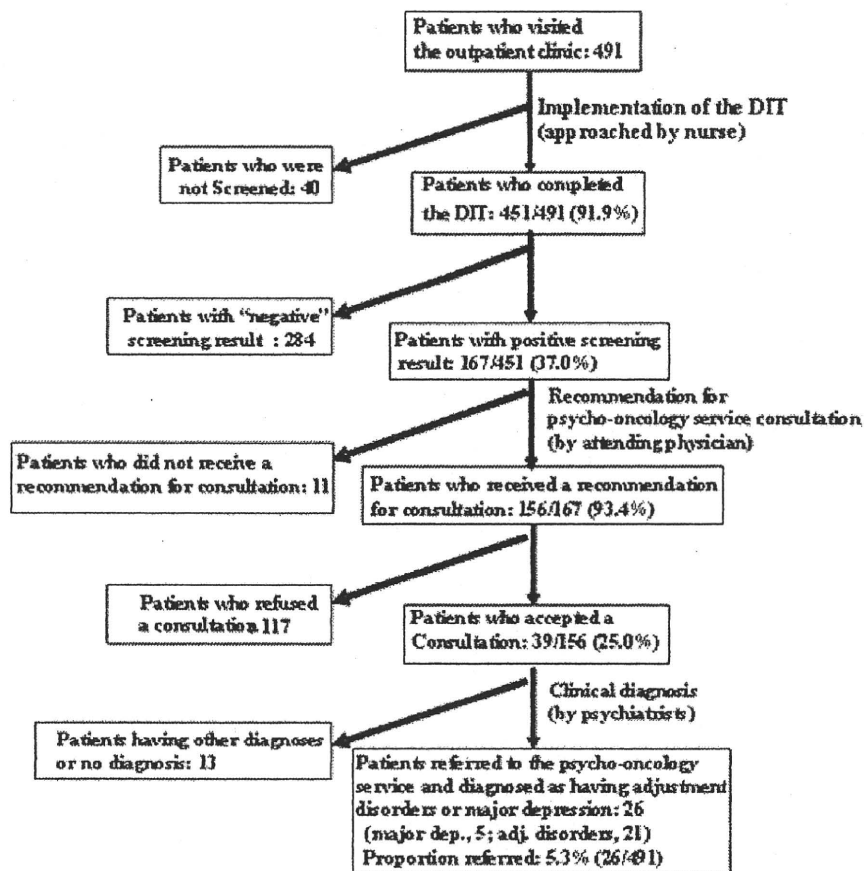


Figure 1. Number of patients recorded at each stage of the screening and referral process

extra consultation time required to recommend patients to the psycho-oncology service was  $132 \pm 73$  s per patient. Among the 156 patients who received recommendations, 39 patients (25.0%) accepted the recommendation. As presented in Table 2, both the distress score ( $p = 0.038$ ) and the impact score ( $p = 0.047$ ) on the DIT were significantly higher in the group that accepted the referral than in the group that refused. No significant differences with regard to age, sex, cancer stage, attending physician, or performance status were observed between the groups.

## Discussion

The results of this study demonstrated the usefulness of DISPAC, a clinical psychological screening program for ambulatory cancer patients, as a means of identifying major depression and adjustment disorders in patients with cancer and of initiating appropriate treatment. A large proportion of the patients who visited the outpatient clinic completed the DIT, and most of the patients with positive screening results received recommendations for a referral to the psycho-oncology service from their attending physician. However, a few minutes were required for the nurses and physicians to complete their tasks, and the burden

placed on nurses administering the DIT was considerable. Moreover only one-fourth of the 'positive' patients accepted a psycho-oncology service referral. Our findings suggest that screening and psycho-oncology service referral programs like DISPAC was useful in leading a higher proportion of distressed cancer patients toward psycho-oncology service treatment, but that the DISPAC program has room for improvement with regard to patients accepting referrals and the burden placed on nurses implementing the DIT.

Several reports have shown the usefulness of integrated screening programs for cancer patients in randomized controlled trials. Such programs provided psychological intervention delivered by the cancer nurse or social worker under the supervision of a consultant psychiatrist [23,24] to patients who screened positive. We developed an integrated screening program, the DISPAC program, based on these previous studies, and the present study shows that the DISPAC is useful in real clinical oncology settings. Now, we are planning to disseminate this program to nationwide practices and a DISPAC introduction manual is presently being created.

Regarding the implementation of the DIT, a large proportion (91.9%) of the patients who visited the outpatient clinic completed the DIT, illustrating the excellent feasibility of the DIT,

**Table 2.** Comparison between patients who accepted and refused psycho-oncology service referral among the patients who screened 'positive'

	No. of patients		p-Value
	Acceptance (n = 39)	Refusal (n = 117)	
Age (mean ± SD)	52.7 ± 12.6	58.7 ± 13.5	0.651
Sex			0.193
Male	0 (0.0)	7 (6.0)	
Female	39 (100.0)	110 (94.0)	
Attending physician			0.210
a	14 (35.9)	42 (35.9)	
b	0 (0.0)	10 (8.5)	
c	9 (23.1)	13 (11.1)	
d	2 (5.1)	2 (1.7)	
e	6 (15.4)	25 (21.4)	
f	7 (17.9)	20 (17.1)	
g	1 (2.6)	5 (4.3)	
Performance status (ECOG) <sup>a</sup>			0.181
0	24 (61.5)	60 (51.3)	
1	14 (35.9)	46 (39.3)	
2	1 (2.6)	7 (6.0)	
3	0 (0.0)	4 (3.4)	
4	0 (0.0)	0 (0.0)	
Stage			0.569
I-III	13 (33.3)	47 (40.2)	
IV, recurrent, or primary unknown	26 (66.7)	70 (59.8)	
The DIT			
Distress (median)	7	5	0.038
Impact (median)	7	5	0.047

<sup>a</sup>Performance status as defined by eastern cooperative oncology group.

compared with previous reports on other screening measures. A previous study reported that the Hospital Anxiety and Depression Scale (HADS) was administered to 70% of the ambulatory patients [22]; thus, the completion rate in the present study was higher. The HADS consists of 14 items, whereas the DIT contains only two items. The DIT may also be more applicable, since cancer patients often have multiple physical symptoms and asking too many questions can be a burden to them. The most common reason for non-implementation in the present study was a lack of time; in other words, the patients were immediately called by their physicians upon entering the waiting room, before they could be approached by a nurse.

The amount of time required for the nurse to introduce the DIT was a few minutes for every patient. In this study period, one nurse was mainly assigned to working on this program and approached about 50 patients every day; thus, this process may be a burden for institutions with a limited medical staff. This process could be expedited by administering the DIT with an instruction booklet, and without routine instruction from a nurse, but such a strategy may result in a poorer implementation of the screening program.

Regarding the second stage of the program, although most of the patients with positive screening results were recommended to consult the psycho-oncology service, a relatively small proportion (25.0%) chose to accept the physician's referral.

This seems to imply that a robust patient-derived barrier existed, which impeded the acceptance of psychiatric referrals by distressed patients. Further improvement in overcoming this barrier is needed, but to do so, the reason underlying the patients' rejection of the psycho-oncology referrals must be determined.

We searched for factors related to the acceptance of psycho-oncology referrals and found that both higher distress and impact scores on the DIT were associated with a greater likelihood of accepting a referral. Three previous studies [29,33,34] and the present study showed a positive association between the distress level and the wish for psychosocial support, although one previous study reported a negative result [35]. Another report has suggested that patients whose screening results are positive but who do not actually require help tend to receive false-positive results upon psychological screening [36]. Mildly distressed patients may prefer and be capable of managing their distress in some other manner and thus may decline referrals to psycho-oncology services. However, we could not assess the prevalence of the targeted patients, and it is conceivable that some patients with these disorders remained undiagnosed and untreated. The DISPAC program is a huge step forward in leading severely distressed patients to psycho-oncology service treatment, but some patients may remain 'undiagnosed and untreated' as a result of patient-derived barriers.

Previous studies have reported the proportions of distressed patients who accepted consultations with psychiatrists or other mental health providers, with results varying from 12 to 48% [29,33–35,37]. The underlying reason why some patients wish to have psychological support and others do not is unclear. The stigma attached to the words 'psychiatric' and 'psychological' is considered to be a possible cause of the reluctance of patients to consult mental health services. Few objective studies, however, have been conducted on patient-delivered barriers to providing psychological care for distressed patients, and sufficient thought has not been given to this matter.

There are several limitations to our study. First, this study compared the results of the DISPAC program with available data for usual care. The comparison group was not systematically controlled, and the proportion of cancer sites differed between the groups. Second, this study was performed at a single center, and care is needed when generalizing these results to other oncology settings. Third, although the clinical diagnoses were made according to the DSM-IV criteria, this diagnostic approach is not as robust as a structured diagnostic interview. Thus, an assessment bias may exist because the psychiatrists, psychologist, and nurse who diagnosed the referred patients were associated with this study. Fourth, although we explored the factors related to the patients' refusal of psychiatric referral, the factors that were assessed were limited to those that could be obtained by clinical assessment. Some factors, such as education, income, and physical symptoms, were lacking. Fifth, we showed that the DISPAC program resulted in a higher proportion of referrals to the psycho-oncology service. This is surrogate endpoint, and the change in the patients' outcome, e.g. improvement of the patients' QOL or depressive symptoms, is not clear.

In conclusion, a large proportion of the target population was successfully screened using the DIT and received recommendations to consult the psycho-oncology service. More patients were ultimately diagnosed as having major depression or adjustment disorders and treated, and the usefulness of this program was shown. However, further improvement is needed regarding the feasibility of DISPAC in real clinical oncology settings. Additional efforts are required to minimize the burden placed on nurses and to optimize the acceptance of psycho-oncology service consultations.

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## Psychiatric disorders and stress factors experienced by staff members in cancer hospitals: A preliminary finding from psychiatric consultation service at National Cancer Center Hospitals in Japan

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### ABSTRACT

**Objective:** The purpose of this study is to identify psychiatric disorders and stress factors experienced by staff members in cancer hospitals who were referred to psychiatric consultation service, and to investigate the association between psychiatric disorders and stress factors.

**Method:** A retrospective descriptive study using clinical practice data on staff members referred to psychiatric consultation service, obtained for 8 years, was conducted at two National Cancer Center Hospitals in Japan. Psychiatric disorders were identified according to DSM-IV. Stress factors were extracted from a chief complaint at the initial visit in medical charts, using a coding approach, and grouped as job stress or personal stress. The frequencies of the stress factors were determined by two coders who were unaware of the categorized procedure. Fisher's exact test was used to determine the association between psychiatric disorders and stress factors.

**Results:** Of 8077 psychiatric consultations, 65 (1%) staff members were referred. The most common psychiatric disorder was adjustment disorder ( $n = 26$ , 40%), followed by major depression ( $n = 17$ , 26%). Eight stress factors were identified from 76 meaning units and were grouped into five job stresses and three personal stresses. Of the five job stresses, four were most frequently experienced in adjustment disorders, and "failure to adapt to job environmental change" was significantly associated ( $p = 0.014$ ). Two of the three personal stresses were most frequently experienced in psychiatric disorders other than major depressive disorder and adjustment disorders, and "suffering from mental disease" was significantly associated ( $p = 0.001$ ).

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*Significance of results:* We found that very few staff members were provided with psychiatric consultation service. A comprehensive support system for job stress might be needed to prevent adjustment disorders, as those are suggested to be the most common psychiatric disorders among staff members in cancer hospitals.

**KEYWORDS:** Psychiatric disorders, Stress factors, Staff in cancer hospitals, Psychiatric consultation service, Japan

## INTRODUCTION

Psychological distress experienced by staff members in cancer hospitals has been mainly reported as burnout syndrome among physicians (Asai et al., 2007; Grunfeld et al., 2000; Ramirez et al., 1996, 1995; Travado et al., 2005) or nurses (Barnard et al., 2006; Catalan et al., 1996). These previous studies using self-reported measures have indicated that the level of psychological distress experienced in oncology settings was not particularly high compared with other medical settings. However, previous results could not provide sufficient information whether professional mental health treatment is indispensable or not. Information about psychiatric disorders satisfies the requirement for this purpose; however, to the best of our knowledge, there has been no study to date investigating psychiatric disorders among staff members in cancer hospitals.

Information about stress factors is important when determining a therapeutic strategy designed to reduce manageable stress factors. Stress factors related to cancer treatment have been reported to involve "feelings of difficulty in determining therapies that require considerations of both efficacy and side effects" (Holland & Rowland, 1990). In addition, stress factors related to patients' care have also been reported as follows: "delivering bad news to patients (cancer diagnosis, disease progression, etc) (Fallowfield & Jenkins, 2004)," "being involved in patients' anxiety or depression (Grunfeld et al., 2005)," and "being present at patients' death (Redinbaugh et al., 2003)." Furthermore, four job stress factors among physicians associated with burnout were identified (Ramirez et al., 1995): "feeling of overload and its effect on home life," "having organizational responsibilities and conflicts," "dealing with patients' sufferings," and "being involved with treatment toxicity and errors." These previously identified stress factors were job-related and did not include general stress experienced by staff members other than clinical staff. Information on stress factors associated with stress reaction must be available when considering actual preventive care for staff members.

Psychiatric consultation service for outpatients at National Cancer Center Hospitals in Japan has treated the psychological distress of staff members in hospitals and cancer patients' family members, as well

as cancer patients. We previously reported on psychiatric disorders among cancer patients (Akechi et al., 2001) and cancer patients' family members (Akechi et al., 2006; Asai et al., 2008) in a retrospective descriptive study using clinical practice data. Here, we similarly identified psychiatric disorders and stress factors experienced by staff members in cancer hospitals and investigated their association. Although we could not directly adapt the present results to the current state of the overall staff in cancer hospitals, we assumed that this study would generate several suggestions regarding the establishment of a mental support system for staff members, after understanding the current utilization of psychiatric consultation service.

## METHOD

### Subjects and Procedure

Psychiatry Services of the National Cancer Center Hospital and National Cancer Center Hospital East share psychiatric consultation database records and information input by psychiatrists following patient examinations. This computerized database (Akechi et al., 2001) includes demographic variables and psychiatric disorders. Psychiatric disorders were diagnosed at the initial visit according to the Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV, 1994). Although each psychiatry division is independent, weekly case conferences are held to ensure consistency in psychiatric diagnosis and treatment.

In this study, we reviewed these psychiatric consultation database records covering the period from January 2000 to December 2007 to identify staff members who had been referred. Being a retrospective study using clinical practice data, informed consent was not obtained. Characteristics of referred staff members such as age, gender, marital status, employment status, and psychiatric disorders were obtained from the database records. Specialty of staff members and history of psychiatric disorder were obtained from medical chart records. This study was approved by the Institutional Review Board and the Ethics Committee of the National Cancer Center of Japan.



## Data Analysis

Stress factors were extracted from a chief complaint at the initial visit in medical chart records, using a coding approach (Strauss & Corbin, 1990); two researchers (M.A., Y.M.) identified meaning units independently, and the obtained meaning units were conceptualized into categories as stress factors according to their similarities. Stress factors were then grouped as job stress or personal stress. Any inconsistencies were resolved by discussion among the authors.

Then, two coders who were unaware of the categorized procedure, independently determined whether each subject had made remarks that belonged to any of the stress factors, according to the definitions of each category. The mean of the concordance rate was 94% (range, 79–100). When their coding was inconsistent, they made the final judgment together after discussion including primary researcher (M.A.). Using the final judgments, we then conducted descriptive analyses of the frequencies of the stress factors.

The association between psychiatric disorders and stress factors was investigated by using Fisher's exact test, which determines the presence of nonrandom associations between two categorical variables.

## RESULTS

### Characteristics of Staff Members who were Referred to Psychiatric Consultation Service

Of 8077 psychiatric consultation services, including 2257 for outpatients, 7820 (97%) were for cancer patients, 185 (2%) for family members of cancer patients, and 65 (1%) for staff members of the two National Cancer Center Hospitals.

The most frequent characteristics of the referred staff members shown in Table 1 are as follows: female ( $n = 51$ , 78%), nurse ( $n = 40$ , 62%), unmarried ( $n = 51$ , 78%), and full-time employee ( $n = 63$ , 97%).

### Psychiatric Disorders and Stress Factors Experienced by Staff Members in Cancer Hospitals

The most common psychiatric disorders were adjustment disorders ( $n = 26$ , 40%), followed by major depression ( $n = 17$ , 26%) (Table 2).

A total of 76 meaning units were extracted from all the medical chart records. Job stress included five categories: (1) "failure to adapt to job environmental change ( $n = 18$ )" included stress experienced after securing their first employment, being transferred from other institutions, or changing fields of specialization; (2) "feeling of overload ( $n = 10$ )" involved stress re-

**Table 1.** Characteristics of staff members who were referred to psychiatric consultation service ( $N = 65$ )

	<i>n</i> (%)
Age (years)	
Mean $\pm$ SD	32 $\pm$ 10
Median	29
Range	21–59
Gender	
Male	14 (22)
Female	51 (78)
Specialty	
Doctor	2 (3)
Nurse	40 (62)
Clerk	6 (9)
Researcher	6 (9)
Secretary	3 (5)
Pharmacist	1 (2)
Cooking staff	1 (2)
Unknown	6 (9)
Marital status	
Married	9 (14)
Unmarried	51 (78)
Divorced	3 (5)
Unknown	2 (3)
Employment status	
Full time	63 (97)
Part time	1 (2)
Unknown	1 (2)
History of any psychiatric disorder	
Presence	14 (22)
Absence	51 (78)

sulting from staffing shortage or deadline-harried work or responsibility for junior fellows"; (3) "conflict in relationship with co-workers ( $n = 9$ )" encompassed stress resulting from collaboration with physicians, superiors or fellow workers; 4) "being involved with patients' psychological distress ( $n = 8$ )" experienced by nursing staff resulting from empathic attitudes toward cancer patients' suicidal ideation, desire for sedation, or fear of death; 5) "making mistakes in the job ( $n = 6$ )" included stress resulting from work-related incidents or accidents. Personal stress included three categories: (1) "suffering from mental disease ( $n = 10$ )" involved stress resulting from prior mental diseases such as anxiety disorder or major depressive disorder; (2) "facing domestic trouble ( $n = 9$ )" included stress resulting from divorce or burden of parental care; (3) "suffering from physical disease ( $n = 4$ )" stress resulting from prior physical diseases such as diabetes, menopause, or accident trauma.

Of the five job stresses, four were most commonly experienced in adjustment disorders, and "failure to adapt to job environmental change" was significantly associated ( $p = 0.014$ ). Two of three personal stresses were most commonly experienced in psychiatric disorders other than major depressive disorder and

**Table 2.** Psychiatric disorders and stress factors experienced by staff members in cancer hospitals (N=65)

Stress factors	Psychiatric disorders				p
	Adjustment disorders n=26 n (%)	Major depressive disorder n = 17 n (%)	Other disorders <sup>a</sup> n = 14 n (%)	No diagnosis n = 7 n (%)	
<b>Job stress</b>					
Failure to adapt to job environmental change	12 (67)	4 (22)	0	2 (11)	0.014*
Feeling of overload	6 (60)	3 (30)	0	1 (10)	0.293
Conflict in relationship with co-workers	6 (67)	2 (22)	1 (10)	0	0.270
Being involved with patients' psychological distress	2 (25)	3 (38)	1 (13)	2 (25)	0.576
Making mistakes in the job	4 (67)	1 (17)	1 (17)	0	0.478
<b>Personal stress</b>					
Suffering from mental disease	0	3 (30)	6 (60)	1 (10)	0.001**
Facing domestic trouble	2 (22)	2 (22)	2 (22)	3 (33)	0.225
Suffering from physical disease	1 (25)	1 (25)	2 (50)	0	0.385

<sup>a</sup>Other disorders include anxiety disorders (n = 6), sleep disorder (n = 1), bipolar disorder (n = 1), personality disorder (n = 1), dysthymic disorder (n = 1), brief psychotic disorder (n = 1), schizophrenia (n = 1), substance-reduced disorder (n = 1), and delirium (n = 1).

\*P < 0.05, \*\*P < 0.01

Note: Subject reported multiple stress factors.

adjustment disorders, and "suffering from mental disease" was significantly associated ( $p = 0.001$ ) (Table 2).

## DISCUSSION

In this study, we found that very few family members were provided with psychiatric consultation service at the two National Cancer Center Hospitals (1% of the total psychiatric consultation services). Adjustment disorders were the most common psychiatric disorders similar to our previous report on cancer patients (Akechi et al., 2001) and family members (Akechi et al., 2006; Asai et al., 2008) who were referred to psychiatric consultation service.

Several preliminary suggestions for the development of a mental support system for staff members have been deduced from the present results. The first suggestion is the creation of a support system for job stress. Four of the five job stresses in this study were equal to previous physicians' job stress factors (Ramirez et al., 1995). The other job stress "failure to adapt to job environmental change" was the most frequent response and was significantly associated with adjustment disorders. Adjustment disorders are psychological responses to an identifiable stressor causing significant emotional or behavioral symptoms that do not meet the criteria for more specific disorders. The primary treatment for adjustment disorders is psychosocial support in the form of counseling or psycho-education to reduce the

pressure of the stressor and enhance patients' own coping abilities. Considering that very few staff members were provided with psychiatric consultation service, where adjustment disorders were directly treated by counseling, most staff members might not want the psychiatry staff members they work with to know that they are suffering from mental problems. In addition, four of the five job stresses were most commonly experienced in adjustment disorders. Therefore, indirect and preventive support, for example, job stress management education for staff members who experienced job environmental change, might be an alternative strategy for alleviating psychological distress experienced by staff members in cancer hospitals.

The second suggestion is the development of a support system for patients' psychological distress. One of the job stresses experienced by nursing staff is "being involved with patients' psychological distress." A previous study has reported that a caring staff member who experienced psychological distress felt it more difficult to work with dying people (Catalan et al., 1996). Empathic attitudes toward cancer patients' psychological distress might be essential in nursing care; however, there are cases when cancer patients developed major depressive disorders requiring indispensable mental professional treatment. In such cases, encouraging patients to consult psychiatric service for their psychological distress is the best policy for reducing psychological distress of staff members as well as cancer patients.

The third suggestion is the establishment of a support system for personal stresses. Two of the three personal stresses identified in this study were most commonly experienced in psychiatric disorders other than major depressive disorder and adjustment disorders, such as anxiety disorders, sleep disorder, bipolar disorder, personality disorder, dysthymic disorder, brief psychotic disorder, schizophrenia, substance-reduced disorder, and delirium. These psychiatric disorders require indispensable mental professional treatment, therefore, staff members who were suffering from mental or physical disease must be informed that psychiatric consultation service is available as needed.

This study has several limitations. First, a critical selection bias exists: we were only able to examine staff members who used the psychiatric consultation service. Thus, we could not comprehensively discuss the association between psychological disorders and stress factors among staff members because the accessibility to this psychiatric consultation service may influence the results. Second, this study has some methodological limitations because of its retrospective review of medical chart records: we were only able to identify stress factors described in medical charts at the initial visit, and those may not be an accurate indicator of stress factors experienced by staff members in cancer hospitals.

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## Involvement of a Psychiatric Consultation Service in a Palliative Care Team at the Japanese Cancer Center Hospital

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**Objective:** Close collaboration between the cancer care team service and the psychiatric consultation service is recommended to provide adequate comprehensive care to cancer patients. In Japan, specialized palliative care teams work in conjunction with consultation-liaison psychiatrists as an essential members. There are, however, few studies reporting on these services.

**Methods:** We obtained the characteristics, physical and psychiatric symptoms and outcomes of cancer patients by analyzing the database of patients referred to the palliative care team at the National Cancer Center Hospital East, Japan.

**Results:** Among consecutive 2000 referrals, most patients referred to the palliative care team present both physical and psychiatric symptoms. Psychiatric diagnoses were provided for ~70% of these patients. Consultation-liaison psychiatrists provided medical care to 80% of all the referrals. The main symptoms for psychiatric consultation were delirium (28%), adjustment disorder (18%), major depression (7.6%) and dementia (6.6%).

**Conclusions:** Psychiatric problems are common in cancer patients of the palliative care team. The palliative care team should assess the psychiatric problems in cancer patients, and the involvement of the consultation-liaison psychiatrists in the palliative care teams may be one of the strategies to establish the psychosocial support for cancer patients in the acute hospital settings.

*Key words:* cancer – palliative care – psycho-oncology – palliative care team – consultation-liaison psychiatry

### INTRODUCTION

The incidence and mortality of cancer have steadily increased, and most patients with advanced cancer eventually face complex problems such as physical, psychiatric and psychological symptoms related to their disease, treatments or comorbidities. General services in hospitals cannot always manage these symptoms effectively. Thus, to address these needs, hospital-based palliative care programs have been established and have rapidly expanded over the past four decades (1).

As hospice care expands, Dr Dame Cicely Saunders, one of the pioneers of palliative care and founder of

St Christopher's Hospice in London, advocated that only an interdisciplinary team can relieve the total pain of a dying person. The implication of interdisciplinary work is that the team members have a shared identity and adapt their professional roles to coordinate their work with others. On the other hand, the implication of multi-disciplinary work is that the members from different disciplines are merely present in the same organization. This interdisciplinary team approach expanded its application from hospice care to homes in the 1960s, and then to hospitals in the 1970s. Palliative care teams (PCTs), consisting of multidisciplinary professionals, assume the key role of providing comprehensive support at acute medical settings. At present, PCTs are steadily