

The significance of a specific psycho-oncology outpatient service for cancer patients run by psychosomatic medical doctors

Atsuko Koyama, Minoru Niki, Hiromichi Matsuoka, Ryo Sakamoto,
Kiyohiro Sakai, Rikako Jinnai, Kanae Yasuda and Masatomo Otsuka¹

Department of Psychosomatic Medicine,

¹*Department of Palliative Care Medicine, Sakai Hospital, Kinki University Faculty of Medicine*

Abstract

Background : The field of psycho-oncology has been developed by psychiatrists in consultation-liaison fields, and the Department of Psychosomatic Medicine, Sakai Hospital, Kinki University Faculty of Medicine set up a new outpatient service for cancer patients. The primary aim of this paper is to clarify the role of psychosomatic medical doctors in cancer treatment and clinical practice, and the secondary aim is to clarify the significance of this special outpatient service for cancer patients from the viewpoint of psycho-oncology.

Methods : Multiple factors, such as age, sex, cancer site, clinical symptoms, the reason for consultation, psychiatric diagnosis, in which department patients were having physical treatment, whether they were hospitalized and whether patients were taking palliative care therapy, were analyzed.

Results : The data of fifty-eight cancer patients, including two family members of cancer patients, were analyzed. The most common

psychiatric disorders were major depressive disorder, anxiety disorders and adjustment disorders. The reasons for consultation ranged from psychological support after receiving bad news, before/after surgery and chemotherapy to control delirium. Our psycho-oncological intervention involved a combination of psychotherapy and pharmacotherapy.

Conclusions : Psychosomatic medical doctors can play an important role in the field of cancer treatment through psycho-oncological activities. The advantages of a specific outpatient service for psycho-oncology are that it can open the door to patients and their families who belong to other departments/hospitals and it can support cancer patients intensively and efficiently. However, improvements are needed, particularly relating to financing and understaffing.

Key words : psycho-oncology, psychosomatic medicine, psychosomatic disorders, cancer, mental distress, multidisciplinary team approach

Introduction

Recently, the prevalence of cancer has been increasing in Japan. Approximately half of Japan's population may suffer from cancer during their lives and one third will die of cancer. Cancer has been the commonest cause of death of Japanese people since 1981.¹ The Cancer Control Bill² was enacted in 2007 and states the

importance of mental care, as well as physical care for cancer patients.

Psycho-oncology is a broad approach to the emotional, social, and spiritual distress of cancer patients.³ Psycho-oncology began in the USA and The International Psycho-Oncology Society (IPOS) was established in 1984.⁴ Since then, much research and clinical practice have been conducted to identify the importance of psycho-

logical intervention for both cancer patients and their families; however, these reports were mainly published by psychiatrists in consultation-liaison fields.⁵⁻⁸

Psychosomatic medicine (PSM) was established in 1996 as a specific medical field in which "psychosomatic disorders" are dealt with. Recently, PSM doctors, who mainly deal with stress-related physical symptoms, have been increasingly taking care of cancer patients in the psycho-oncology field, however, few reports have been published on the clinical practice of PSM doctors.⁹

The doctors in the Department of Psychosomatic Medicine, Sakai Hospital, Kinki University Faculty of Medicine mainly attend to psychosomatic disorder patients but have recently also been taking care of the mental distress of cancer patients. There is also a Department of Palliative Care in the hospital and the doctor attends to the physical distress of cancer patients, such as cancer-related pain. Both departments work in cooperation. In April 2010, the Department of Psychosomatic Medicine set up a new weekly outpatient service for psycho-oncology. The primary aim of this paper is to clarify the role of PSM doctors in cancer treatment and clinical practice, and the secondary aim is to clarify the significance of this special outpatient service for cancer patients from the viewpoint of psycho-oncology.

Methods

Study Sample

The study period was from April 2010 to January 2011. The data of patients who had symptoms related to cancer and had visited the specific outpatient service for psycho-oncology in the Department of Psychosomatic Medicine, Sakai Hospital, Kinki University Faculty of Medicine were collected. All patients were aged 16 years or over.

This study was conducted according to the ethics rules of our hospital. Since all the data assessed in this study were obtained as part of routine clinical assessments from the patients' medical charts, written consent was not obtained from the patients, in accordance with the guidelines of the Japanese Ministry of Health, Labor and Welfare.

Demographic and Clinical Variables

During the study period, all the items assessed

during routine clinical practices were extracted from the patients' medical charts, including age, sex, primary cancer site, clinical symptoms, the reason for consultation, psychiatric diagnosis, which department patients were having physical treatment, whether they were hospitalized, and whether patients were undergoing palliative care therapy.

Psychiatric Diagnosis and Psychological Measurement

Each patient's status was evaluated via a formal medical interview, leading to a Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR)¹⁰ diagnosis.

The Self-rating Depression Scale (SDS)¹¹ and the State-Trait Anxiety Inventory (STAI)¹² were used to evaluate emotional distress in terms of depression and anxiety. In SDS, a cut-off score of 50 was adopted in this study to determine that patients were considered to be in a depressive state. In STAI, cut-off scores of 42/45 (STAI-S/T for female) and 41/44 (STAI-S/T for male) were adopted in this study to determine that patients possessed a tendency toward anxiety.

Psycho-oncological intervention

Our psycho-oncological intervention involves a combination of psychotherapy and pharmacotherapy. Regarding psychotherapy, most of the patients received brief individual supportive sessions and autogenic training in relaxation. Counseling by clinical psychologists was added, if necessary.

As for pharmacotherapy, anxiolytics, antidepressants and hypnotic drugs were mainly used depending on the patient's condition. Antipsychotics were used to suppress delirium. These intervention principles are in agreement with those of the Japan Psycho-oncology Society (JPOS)¹³.

Results

Demographic and Clinical Characteristics

Fifty-eight cancer patients, including two family members of cancer patients, visited the specific outpatient service for psycho-oncology in the Department of Psychosomatic Medicine for the first time during the examination period. Detailed demographic characteristics of the patients are listed in Table 1. This table demonstrated that there were more female patients than male patients. One of the reasons for this feature

Table 1 Characteristics of patients.

Clinical Characteristics	N	(%)
Total patients	58	100
Age (mean±SD), years	60.9±12.3	(range 35-83)
Sex		
Male	17	29.3
Female	41	70.7
Primary Cancer site		
Breast	26	44.8
Lung	7	12.1
Stomach	6	10.3
Colon	3	5.1
Pancreas	3	5.1
Bladder	3	5.1
Kidney	2	3.4
Ureter	1	1.7
Prostate	1	1.7
Uterus	1	1.7
Ovary	1	1.7
Leukemia (ATL+CML)	2	3.4
(Patient's family)	2	3.4
Department of physical treatment		
Surgery	33	56.9
Oncology	10	17.2
Urology	7	12.1
Gastroenterology	4	6.9
Gynecology	2	3.4
Hematology	2	3.4
Main hospital		
Sakai Hospital	23	39.7
Kinki University Hospital	14	24.1
Others	21	36.2
Hospitalized		
Yes/No	12/46	20.7/79.3
Palliative care		
Yes/No	10/48	17.2/82.8

SD=standard deviation

ATL=adult T-cell leukemia

CML=chronic myelogenous leukemia

seems to be that breast cancer patients make up about 45% of total cancer patients. Breast cancer patients have a longer survival period than others and may have increased prevalence of both physical and psychological problems and the need for psychological intervention.¹⁴ Both inpatient and outpatient cancer patients from various departments in our hospital visited our special outpatient service. In addition, patients belonging to Sakai Hospital, the Main Kinki University Hospital in Osakasayama-city, and other hospitals made up one third of the study

sample. The total ratio of hospitalized patients to all patients was 20.7%. Overall, 17.2% of patients were consulting the Department of Palliative Care at the same time, mainly in order to control cancer pain.

Symptoms present in the patients are listed in Table 2. Overall, 43.1% of patients complained of physical symptoms, mainly appetite loss, general fatigue and pain. Main psychiatric symptoms were depressive mood, anxiety and insomnia.

Reasons for consultation consisted of two

Table 2 Present symptoms.

Present symptoms	N	(%)	Present symptoms	N	(%)
Physical symptoms			Psychiatric symptoms		
appetite loss/body weight loss	22	37.9	depressive mood	30	51.7
general fatigue	18	31.0	anxiety	33	56.9
pain	10	17.2	insomnia	26	44.9
palpitations	8	13.8	irritation	6	10.3
feeling of difficulty breathing	3	5.2	panic attack	3	5.2
diarrhea/constipation	8	13.8	others	8	13.8
nausea/vomiting	6	10.3			
dizziness/faintness	5	8.6	None	10	17.2
tinnitus	3	5.2			
numbness	2	3.4			
urinary problems	2	3.4			
others	6	10.3			
None	33	56.9			

* multiple answers given

Table 3 Reasons for consultation.

Reasons for consultation	N	(%)	Reasons for consultation	N	(%)
Patient's own accord	22	37.9	Referred by main doctor	36	62.1
Control of physical symptoms	13	22.4	Control of physical symptoms	12	20.7
psychiatric symptoms	16	27.6	psychiatric symptoms	32	55.2
no symptoms	2	3.4	no symptoms	0	0
Psychological problems			Psychological support		
conflict between family members	5	8.6	receiving bad news	4	6.9
grievance against main doctor	4	6.9	chemotherapy	13	22.4
medical staff	2	3.4	surgery	5	8.6
other patients	1	1.7	control of delirium	2	3.4
work-related social problems	5	8.6			
spiritual problem	3	5.2	spiritual care for dying patient	1	1.7
			patient's family	2	3.4
Requesting information					
palliative care	2	3.4			
hospice/home care	3	5.2			
side effects of chemotherapy	3	5.2			
results of tumor markers	2	3.4			

* multiple answers given

components and are shown in Table 3. The first was that patients came to our department of their own accord, recognizing their physical or psychiatric symptoms. The aim of their consultation was mainly the control of physical and psychiatric symptoms. Other issues ranged widely from psychological problems, such as conflict between family members, grievances against their main

doctors, medical staff and/or other patients, and work-related social problems, to spiritual problems related to the meaning of life. Some patients came requesting information regarding palliative care, hospice and home medical care services. Other patients sought information regarding the side effects of chemotherapy and the results of tumor markers, which they had

Table 4 Psychiatric diagnosis of patients.

Psychiatric Diagnosis	N	(%)	
Major Depressive Disorder	11	19.0	
Anxiety Disorders	9	15.5	
Panic Disorder	3	5.2	
Obsessive-Compulsive Disorder	1	1.7	
Generalized Anxiety Disorder	5	8.6	
Adjustment Disorders	30	51.7	
Mixed anxiety and depressive mood	11	19.0	
With anxiety	8	13.8	
With depressive mood	6	10.3	
Mixed disturbance of emotions and conduct	1	1.7	
Unspecified	4	6.9	
Delirium	2	3.4	
Dementia	1	1.7	
Personality change due to brain metastasis	1	1.7	
Other Psychotic Disorders	2	3.4	
None	2	3.4	

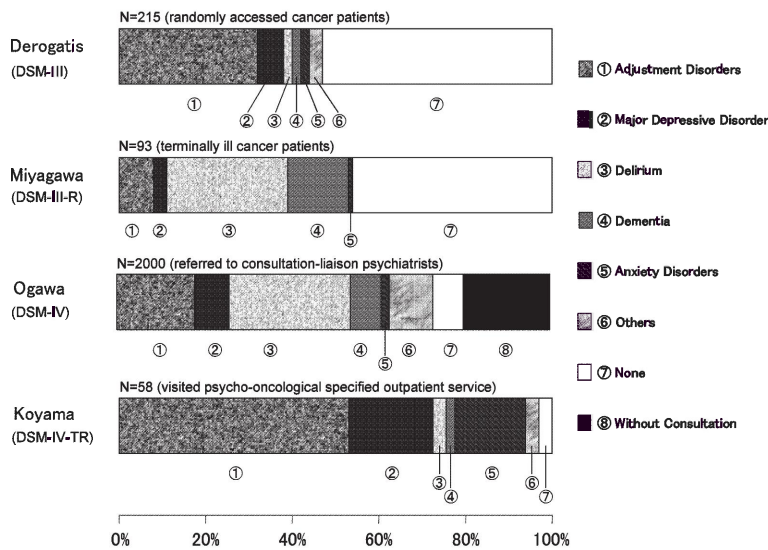


Fig. 1 Comparison of psychiatric diagnosis of cancer patients.

Compared with three previous studies, the patients who came to our specific outpatient service for psycho-oncology had a higher prevalence of major depressive disorder and anxiety disorders in particular.

hesitated to ask their main physical doctors. The other component was that the patient's main physical doctor recognized physical symptoms and/or psychological problems and referred them to our department. The doctor's aims for consultation included psychological support for surgery and chemotherapy, control of delirium, and spiritual care for dying patients and family care.

The psychiatric diagnosis is shown in Table 4. The SDS scores of 54 patients were 54.1 ± 10.8 and 42 patients had higher scores than cut-off

scores of 50. The STAI-S/T scores of 50 patients were $52.9 \pm 14.9/53.2 \pm 15.0$. 24 female patients had higher scores than cut-off scores of 42/45 for females and 9 male patients had higher scores than cut-off scores of 41/44 for males. Adjustment disorders were 51.7% and the subtypes were determined by reference to SDS/STAI scores and patients' symptoms. Major depressive disorder was 19.0%, anxiety disorders including panic disorders, were 15.5%, delirium was 3.4%, and others, including dementia and personality change, were 6.8%. A comparison with the

results found by Derogatis LR¹⁵, Miyagawa¹⁶ and Ogawa¹⁷ is shown in Fig 1. Derogatis¹⁵ examined 215 randomly accessed cancer patients in three cancer centers and showed that 47% of them received a DSM-III diagnosis. Approximately 68% of the psychiatric diagnosis consisted of adjustment disorders. Miyagawa¹⁶ assessed terminally ill cancer patients and 50(53.7%) of them met the DSM-III-R criteria for a psychiatric disorder. Delirium was observed in 26 patients (28%) as the most common disorder. It seemed that the rate of delirium increased according to the deterioration of physical conditions. Ogawa¹⁷ analyzed 2000 cancer patients referred to the palliative care team at the National Cancer Center Hospital East, Japan and consultation-liaison psychiatrists provided medical care to 80% of all referrals. The main diagnosis were delirium (28%), adjustment disorders (18%), major depressive disorder (7.6%) and dementia (6.6%).

Psycho-oncological intervention

The aim of psycho-oncological intervention is to alleviate the mental distress of cancer patients and their family members and to support their cancer treatment. Firstly, most patients received brief individual supportive sessions by PSM doctors. For patients who did not respond to basic brief supportive psychotherapy alone, anxiolytics were used as drugs for the first step. For patients who manifested considerable depressive symptoms, antidepressants such as mirtazapine and duloxetine hydrochloride were prescribed. Antidepressants and anxiolytics were chosen referring to the results of SDS/STAI. When main physical doctors consulted us to control delirium in two hospitalized cases, we advised them to prescribe risperidone. In addition, for patients who mainly complained of cancer-related pain, a consultation was set up with the palliative care doctor. For patients manifesting anxiety, combination therapy of pharmacotherapy with anxiolytics such as clonazepam and bromazepam; psychotherapy such as autogenic training for relaxation; and counseling by clinical psychologists was conducted. Problems related to the patient's relationship with family members, job and lifestyle, and spiritual and existential issues related to the meaning of life were mainly dealt with in counseling sessions. Environmental adjustment was also a very important aspect of psycho-oncological intervention as some patients had grievances against their

main doctors, medical staff and/or other patients, and their family members. In addition to basic brief individual supportive sessions, transactional analysis psychotherapy and group discussion with family members or medical staff were used. We also arranged consultations with appropriate professionals, such as palliative care doctors or medical social workers, in order to fulfill their request for information of palliative care, hospice or home medical care. Thus, PSM doctors played the role of director in this multidisciplinary team.

Psycho-oncological intervention also acted as a type of consultation-liaison service, when main physical doctors asked us for advice for controlling delirium or other psychiatric/psychological problems. Our advice included the prescription of medicine and participating in meetings to discuss the cases.

Moreover, patients' family care and bereaved family care were conducted. Several family members visited our outpatient service, manifesting anxiety and depression at the same level as cancer patients. One man had excess anxiety after his wife was diagnosed with advanced pancreatic cancer. He had several symptoms, such as palpitations, abdominal pain and insomnia and seemed confused at how to support his wife. He visited our outpatient service of his own accord. Another case was a housewife who suffered from depression after her husband was diagnosed with liver cancer. She was exhausted from years of nursing her husband and complained of general fatigue, insomnia and appetite loss. Her husband's main doctor recommended her to consult our department and we prescribed antidepressant drugs for her.

Discussion

Recent research indicates that about half of all cancer patients have psychiatric/psychological disorders as shown by Derogatis¹⁵ and Miyagawa¹⁶ in Fig.1. They examined all cancer patients including those who had no psychiatric/psychological symptoms. Compared with those patients, our patients had a higher prevalence of psychiatric diagnosis since they visited our psycho-oncological outpatient service with psychiatric/psychological/physical symptoms. In Ogawa's report,¹⁷ 20% of referrals did not need psychiatric consultation, and among the rest of the patients no psychiatric diagnosis was given

to 142(7.1%) of them. In our study, no psychiatric diagnosis was given to 2(3.4%) and this is comparable with Ogawa's report. In addition, approximately 80% of patients visited our outpatient service, so they seemed to be in better physical condition and the delirium rate was lower than in Miyagawa and Ogawa's report.

The significance of a specific outpatient service for psycho-oncology should be discussed. With a specific psycho-oncology outpatient service, it is easier to accept cancer patients from different departments in our hospital. This system is also useful for accepting patients who do not need to be hospitalized. Moreover, if the patients' condition permits, we can see hospitalized patients at the specific outpatient service intensively. This method makes it easier to evaluate and intervene in the relationship between patients and their main doctors/comedical staff, as an outsider, independent of the human relationship in the wards. In addition, in this specific outpatient service, it is easier to accept cancer patients from other hospitals, not only those in our hospital.

Two family members of cancer patients visited our specific outpatient service. They also needed psycho-oncological intervention. The care for a cancer patient's family is a very important issue.¹⁸⁻²⁰ After we set up the specific outpatient service, it opened the door to family members of cancer patients.

Next, the advantages of PSM doctors should be discussed. PSM doctors are basically physicians and are adept at dealing with physical symptoms. In this study, 43.1% of patients complained of physical symptoms. In addition, PSM doctors are familiar with controlling symptoms derived from depression and anxiety. Physical and psychiatric symptoms sometimes combine and relate to depression and anxiety, so these symptoms need a psychosomatic approach from the viewpoint of holistic medicine. This concept coincides with psycho-oncology.

Some patients came to our specific outpatient service complaining of conflict between family members, grievances against their main doctors, medical staff and/or other patients. Physician-patient communication is related to patient satisfaction.^{21,22} PSM doctors are adept at psychotherapies such as transactional analysis and cognitive behavior therapy used to improve the relationship between patients and the people they have grievances with. PSM doctors also

have a lot of communication skill training, which is very useful and effective in a crucial cancer treatment process, for example, explaining bad news about a cancer diagnosis, relapse and shifting curative treatment to palliative care.²³⁻²⁶

Moreover, a multidisciplinary team approach is essential in the cancer medical field and a PSM doctor can act as a director of the team. There is a team dynamic and complicated human relationships among medical professionals, such as doctors, nurses, pharmacists, dieticians, medical social workers and others. A director is necessary to arrange the medical team to make it work significantly and PSM doctors have the skill to do this. Overall, 17.2% of patients were consulting the Department of Palliative Care at the same time, mainly to control cancer pain; therefore, cooperation with a palliative care doctor in the same hospital is beneficial for cancer patients. When PSM doctors control the psychological, social and spiritual distress of cancer patients in association with a palliative care doctor controlling cancer pain, the "total pain" of cancer patients can be alleviated from the viewpoint of holistic medicine. PSM doctors also cooperate with medical social workers and social resources, such as primary care doctors, home care nurses and care managers, when cancer patients want to discharge themselves from the hospital and receive care at home.

However, there are several problems with this system. First of all, the new outpatient service for cancer patients is understaffed, including a lack of certified nurses. It is somewhat difficult to respond adequately to patient requests. Second, there is not enough economic support for this psycho-oncology service. This activity is time-consuming but is not counted towards the special points program under Japan's health insurance system. Third, it is very important to work together with main physical doctors and psycho-oncology doctors; however, there are sometimes discordant opinions derived from different viewpoints. For example, when we try to prescribe anxiolytics for cancer patients, their main physical doctors sometimes oppose this idea as they are afraid of the respiratory depressant effect of anxiolytics. In addition, it is sometimes difficult to cooperate with main physical doctors belonging to other hospitals. Fourth, this specific psycho-oncological outpatient service began only one year ago. Some doctors and patients are unaware of our service

and appropriate support might not reach cancer patients in need. Posters and brochures are necessary to gain recognition for our specific outpatient service. Although there are several problems with this new system, a specific psycho-oncological outpatient service is useful and effective to support cancer patients with mental distress. JPOS surveyed the present situation of psycho-oncological outpatient services in 2010, and 233 hospitals returned answers out of 287 (response rate=81.2%). It showed that 176 hospitals had an outpatient service for cancer patients (176/233=75.6%), however only 25 out of 176 (14.2%) hospitals have a specific psycho-oncological outpatient service run by PSM doctors. Further improvements and promotion by PSM doctors are needed in this field.

The present study has several limitations. First, this study was based on consultation cases only in our hospital. There were 841²⁷ PSM doctors in Japan in 2006 and the number of doctors certified by the Japanese Society of Psychosomatic Internal Medicine was 469²⁸ in 2010. The number of members of the JPOS was 1,123 in 2010, and the number of PSM doctors was only 54. Only a small number of PSM doctors are therefore in charge of psycho-oncology activities. Further studies are needed to investigate the present psycho-oncology activities by PSM doctors all over Japan to discuss the significance of our practice. Second, this study was performed by extracting all the items from the patients' medical charts and assessments by PSM doctors; therefore, a possibility of assessment bias exists. The evaluation of satisfaction of patients and main physical doctors, and the effectiveness of psycho-oncological intervention by PSM doctors should be examined in the future. Third, in Fig. 1, Derogatis diagnosed his samples by DSM-III, Miyagawa by DSM-III-R, Ogawa by DSM-IV while we diagnosed patients by DSM-IV-TR. This difference should be considered when these data are compared.

Although our study has several limitations, some highly suggestive results were seen as helpful information for clinical psycho-oncology practice and for suggesting future studies. In order to elucidate the significance of a specific outpatient service for cancer patients and to promote psycho-oncology activities by PSM doctors, further research addressing the present study's limitations is necessary.

In conclusion, PSM doctors can play an

important role in the field of cancer treatment through psycho-oncological activities. The advantages of a specific outpatient service are that it can open the door to patients and their families who belong to other departments/hospitals and it can support cancer patients intensively and efficiently. However, there are several problems, such as the lack of trained staff and economic support, which clearly indicate that further improvements and studies are needed.

Acknowledgements

The author would like to thank Kazuhiro Yoshiuchi, M.D., Ph.D., The University of Tokyo and Akihiro Tokoro, M.D., National Hospital Organization Kinki-Chuo Chest Medical Center, for collecting the data of the outpatient service by PSM doctors in Japan.

References

1. <http://www.mhlw.go.jp/toukei/saikin/hw/jinkou/suii02/deth7.html>
2. http://www.shugiin.go.jp/itdb_gian.nsf/html/gian/honbun/houan/g16401029.htm
3. Breitbart WS, Alici Y (2009) Psycho-oncology (Review) *Harv Rev Psychiatry* 17: 361-176
4. http://www.ipos-society.org/about/history__vision_mission.aspx
5. Horikawa N (2010) Mental care for cancer patients in the clinical practice of consultation-liaison psychiatry. *Seishin Shinkeigaku Zasshi* 112: 1018-1023
6. Chiu NM, Sun TF, Wu CK, Leung SW, Wang CJ, Wen JK (2001) Clinical characteristics of outpatients as a psycho-oncology clinic in a radiation oncology department. *Chang Gung Med J* 24: 181-187
7. Bloch S, Kissane D (2000) Psychotherapies in psycho-oncology. An exciting new challenge. *Br J Psychiatry* 177: 112-116
8. Kissane DW, Smith GC (1996) Consultation-liaison psychiatry in an Australian oncology unit. *Aust NZ J Psychiatry* 30: 397-404
9. Tokoro A (2010) Psychosomatic medicine and psychooncology. *Sougou Rinshou* 59: 2276-2280
10. American Psychiatric Association. *Diagnostic and statistical manual disorders, 4th ed., next revision*. Washington, DC: American Psychiatric Association, 2000
11. Zung WWK (1965) A self-rating depression scale. *Arch Gen Psychiat* 12: 63-70
12. Spielberger C, Gorsuch R, Lushene R *State-Trait Anxiety Inventory*. Consulting Psychologists Press. Palo Alto, CA. 1970
13. <http://www.jpos-society.org/>
14. Anja M, Uwe K (2008) Psychological comorbidity and health-related quality of life and its association

- with awareness, utilization, and need for psychosocial support in a cancer register-based sample of long-term breast cancer survivors. *J Psychosomatic Research* 64: 383–391
15. Derogatis LR, Morrow GR, Fetting J, Penman D, Piasetsky S, Schmale AM, Henrichs M, Carrnicke CL Jr (1983) The prevalence of psychiatric disorders among cancer patients. *JAMA* 249: 751–757
 16. Miyagawa H, Uchitomi Y, Yamawaki S, Ishitani K (1996) Psychiatric morbidity in terminally ill cancer patients. A prospective study. *Cancer* 78: 1131–1137
 17. Ogawa A, Shimizu K, Akizuki N, Uchitomi Y (2010) Involvement of a psychiatric consultation service in a palliative care team at the Japanese cancer center hospital. *Jpn J Clin Oncol* 40: 1139–1146
 18. Asai M, Akechi T, Nakano T, Shimizu K, Umezawa S, Akizuki N, Uchitomo Y (2008) Psychiatric disorders and background characteristics of cancer patients' family members referred to psychiatric consultation service at National Cancer Center Hospitals in Japan. *Palliat Support Care* 6: 225–230
 19. Tomarken A, Holland J, Schachter S, Vanderwerker L, Zuckerman E, Nelson C, Coups E, Ramirez PM, Prigerson H (2008) Factors of complicated grief pre-death in caregivers of cancer patients. *Psychooncology* 17: 105–111
 20. Kissane DW, Bloch S, McKenzie M, McDowall AC, Nitzan R (1998) Family grief therapy: a preliminary account of a new mode promote healthy family functioning during palliative care bereavement. *Psychooncology* 7: 14–25
 21. Ishikawa H, Takayama T, Yamazaki Y, Seki Y, Katsumata N (2002) Physician-patient communication and patient satisfaction in Japanese cancer consultations. *Soc Sci Med* 55: 301–311
 22. Ishikawa H, Takayama T, Yamazaki Y, Seki Y, Katsumata N, Aoki Y (2002) The interaction between physician and patient communication behaviors in Japanese cancer consultations and the influence of personal and consultation characteristics. *Patient Educ Couns* 46: 277–285
 23. Stiefel F, Razavi D (2006) Informing about diagnosis, relapse and progression of disease-communication with the terminally ill cancer patient. *Recent Results Cancer Res* 168: 37–46
 24. Back AL, Arnold RM, Baile WF, Fryer-Edwards KA, Alexander SC, Barley GE, Gooley TA, Tulsky JA (2007) Efficacy of communication skills training for giving bad news and discussing transitions to palliative care. *Arch Intern Med* 167: 453–460
 25. Lienard A, Merckaert I, Libert Y, Delvaux N, Marchal S, Boniver J, Etienne AM, Klastersky J, Reynaert C, Scalliet P, Slachmuylder JL, Razavi D (2006) factors that influence cancer patients' anxiety following a medical consultation: impact of a communication skills training programme for physicians. *Ann Oncol* 17: 1450–1458
 26. Merckaert I, Libert Y, Delvaux N, Marchal S, Boniver J, Etienne AM, Klastersky J, Reynaert C, Scalliet P, Slachmuylder JL, Razavi D (2005) Factors that influence physicians' detection of distress in patients with cancer: can a communication skills training program improve physicians' detection?. *Cancer* 104: 411–421
 27. <http://www.mhlw.go.jp/toukei/saikin/hw/ishi/06/tou9.html>
 28. http://www.jspim.org/PDF/map/tourokuinihontizu_2.htm