# 岩手医科大学 審查学位論文 (博士)

# Original

# Social support for cancer patients: the related factors in the psychiatric consultation-liaison service

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#### Abstract

Cancer is a leading cause of death, and there is a need to provide satisfying social support for cancer patients. We sought to identify factors related to social support needs in cancer patients. In the Palliative Care Team of Iwate Medical University Hospital, 101 cancer patients were studied for 1 year. They were divided into two groups according to wanting a social support intervention or not. The percentage of patients with "anxiety about drug intake" was lower in the social support intervention-wanting group. Factors identified as associated with patient needs for intervention were high degrees on the distress thermometer (psychological factor) and

the attending physician's awareness of problems related to the choice of long-term care facility (social factor). In the intervention-wanting group, the patients were thought to not have a physical status which made them anxious about drug intake. As for the factors related to the patient wanting social support, the intensity of mental annoyance and the social needs for adjustment of the choice of long-term care facility were identified. It was suggested that the social support needs are influenced by both mental suffering and social problems. Therefore, mental/social problems must be considered at the time of introducing social support.

Key words: cancer, palliative care, social support, social worker, psycho-social perspective

# I. Introduction

In Japan, which is often described as a super-aging society, cancer is consistently ranked high as a cause of death <sup>1)</sup>; an era is coming soon in which one out of two Japanese

people will contract cancer <sup>2)</sup>. With increasing public interest in cancer care <sup>3)</sup>, the Cancer Control Act was enforced in April 2007; under the Basic Plan to Promote Cancer Control Programs, arrangements for designated cancer

hospitals are expanding to provide high-quality medical care for cancer patients <sup>4)</sup>.

Against this background, awareness of the necessity for palliative care has been gradually increasing. For health professionals, workshops on palliative care are being held throughout Japan <sup>5)</sup> to help participants to improve their communication ability, and to promote the establishment of in-house palliative care teams and the introduction of palliative care for cancer patients early in their treatment.

If cure-oriented treatment is not possible, a major psycho-social problem will arise for the patient and his/her family. In such cases, the incidence rate of psychiatric disorders is high; a Japanese study detected psychiatric diseases in 54% of terminal cancer patients, of whom 8% were diagnosed with adjustment disorder and 3% with depression <sup>6)</sup>.

The reported risk factors for the onset of psychiatric symptoms include advanced/ recurrent cancers 7, insufficient control of pain and other physical symptoms, young age, poor systemic conditions8, nervous personality9), past history of psychiatric diseases including depression, short history of education 10), and low availability of social support 11). Furthermore, about 10-20% of cancer patients were reported to have suicidal ideation; as expected, the underlying factors were suggested to include physical sufferings, psychological/psychiatric factors, existential pain, and lack of social support 12-15). In addition, about as much as 20-30% of care-giving family members supporting cancer patients reportedly had depression 16); significant burdens on the caregiver are suggested as a reason for depression.

Some published studies have found

that stress reactions and depression were ameliorated by providing interventions from a psycho-social perspective, including social support 17-20); social support is thought to be an important factor for lessening the mental burdens on the patient. The patient's need is greatly associated with intervention of the clinical social support variety. However, it is not clear what kind of factors surrounding the patients are associated with the hope for social support. In this paper we report on the results of our study to establish the appropriate means of provision of social support to lessen suffering and to improve the quality of life (QOL) for cancer patients in actual palliative care settings.

## II. Materials and Methods

The study period spanned 1 year from April 1, 2012 to March 31, 2013, and the study site was Iwate Medical University Hospital. A total of 258 cancer patients  $[61.7 \pm 14.0]$  years (mean  $\pm$  SD), males 49.6%] referred to the palliative care team of the hospital (hereinafter referred to as the palliative care team) upon the discretion of the attending physician or the patient's wishes were screened for eligibility. After the patient was referred to the palliative care team, a nurse certified in palliative care or a nurse certified in cancer pain management nursing visited the patient. Based on the findings in the visits, 98 patients were excluded from the study because of difficulty responding to the questions due to poor health (68 patients) or cognitive functional impairment, emotional lability, or other for medical reasons (30 patients). Also excluded were 31 patients with a short duration of hospitalization, making interventions from

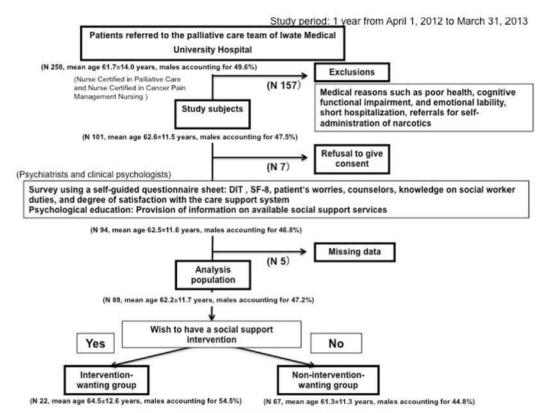


Fig. 1. Study population and selected subjects

Gender Male, N(%) Female, N(%) Total N 128(49.6) 130(50.4) 258 Poor health condition 41(60.3) 27(39.7) 16(53.3) 14(46.7) Other medical reasons Excluded 10(35.7) 18(64.3) For self-administration of narcotics 157 13(41.9) 18(58.1) Short hospitalization Refusal to give consent 4(57.1) 3(42.9)7 2(40.0)3(60.0) 5 Missing data Not analyzed 12(54.5) 10(45.5) 22 Intervention-wanting group Analyzed 30(44.8) 37(52.8) 67 Non-intervention-wanting group

Table1. Study population breakdown

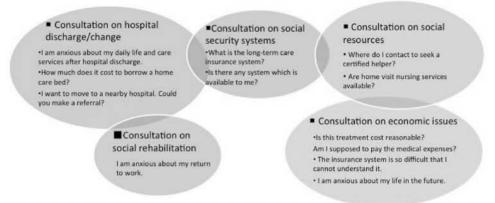
a psycho-social perspective difficult, and 28 patients who underwent intervention for the purpose of self-administration of narcotics (at our hospital, referrals for self-administration of narcotics are sometimes issued to the palliative care team).

The remaining 101 patients ( $62.6 \pm 11.5$  years, males 47.5%) were given an explanation

about the survey, both verbally and in writing, and 94 consented to participate in the study  $(62.5 \pm 11.6 \text{ years}, \text{ males } 46.8\%)$ . Of these, 5 patients with missing data because of question response difficulties due to nausea and/or pain were removed from the study, leaving 89  $(62.2 \pm 11.7 \text{ years}, \text{ males accounting for } 47.2\%)$  for the analytical population (Fig.1, Table 1).

# Please Feel Free to Utilize Social Worker Services

—If, for example, you have some of these concerns —



The Palliative Care Team includes medical social workers (including certified social workers and psychiatric social workers), who accept a broad range of consultations, are working to ensure that all outpatients/inpatients at our hospital and their families can enjoy medical care with ease.

\* We strictly observe the rules of privacy protection. All consultations are free of charge.

Fig. 2. Explanatory leaflet

The survey items for these subjects included gender, age, diagnosis, metastases, treatment status, prognosis prediction, history of treatment, problems/content of the request as of the time it was requested by the attending physician, Eastern Cooperative Oncology Group Performance Status (ECOG PS)<sup>21)</sup>, Distress and Impact Thermometer (DIT)<sup>22)</sup>, 8-Item Short-Form Health Survey (SF-8)<sup>23)</sup>, the patient's worries, counselor, knowledge of social worker duties, and the degree of satisfaction with the care support system.

Information on gender and age was collected from electronic medical records, and diagnosis, metastases, treatment status, prognosis prediction, history of treatment, and problems/content of the request as of the time it was requested by the attending physician were identified in the request written by the attending physician for referral to the

palliative care team. ECOG PS was evaluated on the basis of findings in medical records by a nurse certified in palliative care or a nurse certified in cancer pain management nursing at the first visit. The severity of mental suffering was evaluated on the visual analog scale DIT using a self-guided questionnaire sheet, and health-related QOL parameters were evaluated using SF-8.

Each patient was asked to answer questions on their worries, counselors, and knowledge of social worker duties by marking all applicable answers. The self-guided questionnaire was completed by the patient in the presence of two psychiatrists or two clinical psychologists of the palliative care team who visited the patient. In cases where physical condition made it difficult for the patient to complete the sheet by himself/herself, the palliative care team visitors conducted interviews based on the questionnaire sheet. After asking the

question about "knowledge of social worker duties," information was provided for the patient using the explanatory leaflet (Fig. 2) to notify the availability of consultation on hospital discharge/change, security systems, social resources, social rehabilitation, and economic issues (psychological education). After the patient understood the explanation, a question was asked about their wish to have social support intervention. The degree of satisfaction with the care support system was evaluated using a 5-grade self-guided rating system.

The aforementioned survey items were classified by factor into five categories: 1) demographic factors (gender, age), 2) physical status (diagnosis, metastases, treatment status, prognosis prediction, history of treatment, ECOG PS), 3) mental health/QOL-related items (DIT, SF-8), 4) psycho-social problems (the patient's worries, problems/content of the request as of the time it was requested by the attending physician), and 5) coping factors/degree of satisfaction with the medical care system (counselor, knowledge of social worker duties, degree of satisfaction with the care support system).

The analysis population was divided into two groups according to their wishes for intervention: 22 subjects with the wish to have social support intervention (interventionwanting group; 64.5 ± 12.6 years, males 54.5%) and 67 without (non-interventionwanting group; 61.3 ± 11.3 years, males 8%). For each survey item, the data were compared between the two groups. Results were statistically analyzed using Fisher's exact test or chi-square test for ratio data, and t-test for numerical value data. A multiple

logistic regression analysis was also performed to clarify factors associated with the presence or absence of demand for interventions, using the presence or absence of the demand for interventions as an objective variable, and demographic factors, physical status, mental health/QOL-related parameters, psychosocial problems, and coping factors/degree of satisfaction with the medical care system as explanatory variables. All statistical analyses were performed at a level of significance of 5%, using SPSS for Windows Ver. 20. The study was conducted after the approval of the Ethics Committee of Iwate Medical University School of Medicine was given, and after the personally identifiable information was excluded.

# III. Results

The comparison of the two groups (Table 2) revealed a significantly lower (p=0.030) percentage of patients with "anxiety about drug intake" in psycho-social problems in the intervention-wanting group (2 patients, 9.1%) than in the non-intervention-wanting group (22 patients, 32.8%). The multiple logistic regression analysis (Table 3) identified "distress score thermometer" in the DIT as a significant variable, and the odds ratio for producing demands for interventions was calculated as 1.489 (95% confidence interval: 1.057-2.096, p=0.023). "Choice of longterm care facility" in problems/content of the request as of the time it was requested by the attending physician was identified as a significant variable, and the odds ratio for producing demands for interventions was calculated as 11.191 (95% confidence interval: 1.344-93.222, p=0.026).

Table 2. Comparison of the Social Work Intervention-wanting Group and the Non-wanting group

Method of information collection	Survey items			All subjects, N 89 N(%)	N(%)	Non-intervention-wanting group, N 67 N(%)	p-Valu	
Electronic medical records	Gender Male Female			42(47.2) 47(52.8)	12(54.5) 10(45.5)	30(44.8) 37(55.2)	0.4	
Extrone medical records	2		Age±SD		62.19±11.66	64.51±12.60	61.43±11.33	
			Un	Respiratory system per gastrointestinal tract	6(6.7) 6(6.7)	3(13.6) 3(13.6)	3(4.5) 3(4.5)	
		1	Lo	ver gastrointestinal tract	6(6.7)	2(9.1)	4(6)	0.6
		1	Liver/gall bladder/pancreas Breast		3(3.4) 3(3.4)	0(0)	3(4.5) 1(1.5)	
				Urinary system	15(16.9)	3(13.6)	12(17.9)	0.
	Dia	gnosis	He	ad and neck, esophagus Gynecology	18(20.2) 23(25.8)	3(13.6) 3(13.6)	15(22.4) 20(29.9)	
		gaosis		Hematopoietic system	2(2.2)	0(0)	2(3)	1
			-	Skin, bone soft tissue	2(2.2)	1(4.5)	1(1.5)	
		t	Endocrine system  Cancer with unknown primary site		0(0) 3(3.4)	0(0)	2(3)	
			Central nervous system		1(1.1)	0(0)	1(1.5)	
			Benign Others		0(0) 3(3.4)	0(0) 2(9.1)	0(0)	
	Metastases		Brain metastasis		6(6.7)	2(9.1)	4(6)	0
				Bone metastasis Liver metastasis	22(24.7) 21(23.6)	8(36.4) 5(22.7)	14(20.9) 16(23.9)	
			Lung metasta	sis/pleural metastasis/pleural fluid	26(29.2)	8(36.4)	18(26.9)	0.
		1	Lymph node metastasis Skin metastasis		56(62.9) 4(4.5)	15(68.2)	41(61.2) 4(6)	
			Peritoneal dissemination/ascites fluid		13(14.6)	3(13.6)	10(14.9)	1.
				tive lesion retention/recurrence xamination/treatment continued	20(22.5) 26(29.2)	5(22.7) 5(22.7)	15(22.4) 21(31.3)	
	Treatm	ent status	0	n anticancer treatment	26(29.2)	6(27.3)	20(29.9)	1.
	Treatment status		Anticancer	treatment no longer performed Follow-up	34(38.2) 3(3.4)	11(50)	23(34.3) 3(4.5)	
Written referral to palliative care				Up to several days	0(0)	0(0)	0(0)	)
team, completed by attending physician				Up to several weeks Up to several months	2(2.2) 26(29.2)	0(0) 9(40.9)	2(3)	0.
poyacian	Prognosis	s prediction		6 months	18(20.2)	3(13.6)	17(25.4) 15(22.4)	0.
	360,000			6 months - 1 year	4(4.5) 6(6.7)	2(9.1) 1(4.5)	2(3) 5(7.5)	0.
	1			>1 year Unknown	33(37.1)	7(31.8)	26(38.8)	
		History of		Yes	38(42.7)	11(50)	27(40.3) 40(59.7)	0
	History of	History of		None/Unknown Yes	51(57.3) 67(75.3)	11(50) 18(81.8)	49(73.1)	1
	treatment	chemotherapy		None / Unknown	22(24.7)	4(18.2)	18(26.9)	
		History of radiotherapy		Yes None/Unknown	44(49.4) 45(50.6)	10(45.5) 12(54.5)	34(50.7) 33(49.3)	
		10000111(110)		Pain	52(58.4)	12(54.5)	40(59.7)	0.8
			20,000,000	Nausea Difficulty breathing	16(18) 4(4.5)	3(13.6) 1(4.5)	13(19.4) 3(4.5)	
			Physical	Malaise	18(20.2)	4(18.2)	14(20.9)	1.0
				lleus Others	4(4.5) 28(31.5)	0(0) 8(36.4)	4(6) 20(29.9)	0.
	Problems/content of request at the time of referral by attending physician			Diet	5(5.6)	0(0)	5(7.5)	0.3
			Care-related	Walking Excretion	6(6.7) 3(3.4)	2(9.1)	4(6) 3(4.5)	
			Care-related	Bathing	3(3.4)	0(0)	3(4.5)	
				Others	1(1.1)	0(0)	1(1.5)	1.0
			Choic	Mental e of long-term care facility	70(78.7) 44(49.4)	17(77.3) 15(68.2)	53(79.1) 29(43.3)	
			Monetary Family care Drug intake guidance		2(2.2)	2(9.1)	0(0)	0.0
					30(33.7) 21(23.6)	9(40.9) 5(22.7)	21(31.3) 16(23.9)	
				IC support	22(24.7)	3(13.6)	19(28.4)	0.2
Evaluated by a Nurse Certified in	ECOG PS <sup>®3</sup>			1	1(1.1) 27(30.3)	1(4.5) 5(22.7)	0(0) 22(32.8)	1
Palliative Care or a Nurse Certified				2	35(39.3)	6(27.3)	29(43.3)	0.0
Cancer Pain Management Nursing				3	17(19.1) 9(10.1)	8(36.4) 2(9.1)	9(13.4) 7(10.4)	
	DIT <sup>®2</sup>			thermometer indication±SD	5.76±2.3	6.48±1.92	5.53±2.38	
			Impact	thermometer indication±SD SF8-1±SD	5.22±2.91 37.65±8.38	5.41±3.03 38.68±8.67	5.16±2.89 37.32±8.32	
				SF8-2±SD	33.86±11.48	31.22±9.25	34.73±12.05	0.2
Self-guided questionnaire sheet		- 091		SF8-3±SD SF8-4±SD	32.6±10.96 41.18±10.9	29.47±8.57 41.51±9.05	33.63±11.51 41.07±11.5	
	SF-8 <sup>®3</sup>			SF8-5±SD	39.54±7.66	41.49±8.55	38.9±7.3	0.1
				SF8-6±SD SF8-7±SD	38.54±10.43 39.95±8.9	38.68±10.83 39.07±9.58	38.49±10.38 40.24±8.73	0.5
				SF8-8±SD	35.26±11.69	32.82±12.93	36.07±11.24	0.2
				iagnosis and treatment in, adverse reactions, and sequelae)	45(50.6) 69(77.5)	11(50) 20(90.9)	34(50.7) 49(73.1)	
				ement to another hospital	21(23.6)	5(22.7)	16(23.9)	1.0
			Home medical care Overall aspects of hospitalized life		17(19.1) 32(36)	6(27.3) 8(36.4)	11(16.4) 24(35.8)	
	Patient's worries		Drug intake		24(27)	2(9.1)	22(32.8)	0.
			Economic Mental		29(32.6) 42(47.2)	6(27.3) 10(45.5)	23(34.3) 32(47.8)	
			Matters concerning the patient's sense of value		23(25.8)	5(22.7)	18(26.9)	0.
			Family affairs Relation to caregivers		40(44.9) 14(15.7)	13(59.1) 2(9.1)	27(40.3) 12(17.9)	0.
			Relation to friends/people around the patient		17(19.1)	5(22.7)	12(17.9)	0.
			No worries Others		2(2.2) 2(2.2)	0(0) 1(4.5)	2(3) 1(1.5)	0.
	Counselors		Spouse		44(49.4)	13(59.1)	31(46.3)	0
			Parents/children Siblings/other relatives		45(50.6)	10(45,5)	35(52.2)	0.
			Medical care staff		35(39.3) 16(18)	9(40.9) 6(27.3)	26(38.8) 10(14.9)	
			Others		17(19.1)	4(18.2)	13(19.4)	1.
	Knowledge of social worker duties  Degree of satisfaction with care support system		None Consultation on movement to another hospital		10(11.2) 13(14.6)	3(13.6) 3(13.6)	7(10.4) 10(14.9)	
			Consultation on social security systems		16(18)	5(22.7)	11(16.4)	0
			Consultation on social resources Consultation on economic issues		7(7.9) 14(15.7)	2(9.1) 3(13.6)	5(7.5) 11(16.4)	
			Consultation on social rehabilitation		12(13.5)	3(13.6)	9(13.4)	1.
			No knowledge		64(71.9) 10(11.2)	16(72.7) 2(9.1)	48(71.6) 8(11.9)	
			Very satisfied Satisfied		44(49.4)	11(50)	33(49.3)	
			Equivocal		28(31.5) 6(6.7)	8(36.4) 1(4.5)	20(29.9) 5(7.5)	0.9
	suppor		Dissatisfied Very dissatisfied					

<sup>%1</sup> Eastern Cooperative Oncology Group Performance Status %2 Distress and Impact Thermometer %3 8-Item Short-Form Health Survey

Table 3. Multiple Logistic Regression Analysis

				Odds ratio	Lower limit	nterval of odds ratio Upper limit	p-Value
Demographic factors			Gender	1.444	0.544	3.831	0.460
			Age	1.023 2.126	0.980	1.068 158,362	0.30
		Respiratory system Upper gastrointestinal tract		4.639	0.054	396.230	0.49
		÷	Lower gastrointestinal tract	14.501	0.151	1396.507	0.2
		Liver/gall bladder/pancreas		3324982061.589	0.000	NA NA	1.0
			Breast	1.643 27.569	0.015	185.661 1725.620	0.8
	Diagnosis	Urinary system Head and neck, esophagus		4.785	0.090	254.834	0.4
			Gynecology	15.212	0.229	1009.295	0.20
			Hematopoietic system	3963736016.480	0.000	NA.	0.99
			Skin, bone soft tissue	1.167	0.009	155.883	0.9.
			Endocrine system  Cancer with unknown primary site	NA 6.277	NA 0.074	NA 529.391	0.4
			Central nervous system	1885172098.730	0.000	NA	1.0
Physical status			Benign	NA NA	NA	NA	
			Others	0.115	0.004	3.286	0.2
	Metastases		Brain metastasis Bone metastasis	0.706 0.194	0.032 0.019	15.428 2.010	0.8
			Liver metastasis	2.426	0.310	18.986	0.3
		Lung	metastasis/pleural metastasis/pleural fluid	0.410	0.056	3.022	0.3
		7 - 7 - 7 - 7 - 7	Lymph node metastasis	1.832	0.302	11.132	0.5
			Skin metastasis	2560287645.705 1.234	0.000	NA 14.355	0.9
			Peritoneal dissemination/ascites fluid stoperative lesion retention/recurrence	1.234	0.106	11.163	0.6
1			ensive examination/treatment continued	0.000	0.000	NA.	1.0
	Treatment status		On anticancer treatment	0.000	0.000	NA	1.0
		Ant	icancer treatment no longer performed	0.000	0.000	NA	1.0
			Follow-up	0.160 NA	0.000	NA NA	1.0
			Up to several days	NA 3.219	0.000	NA NA	1.0
_			Up to several weeks Up to several months	1.385	0.000	12.211	0.3
	Prognosis prediction		6 months	1.225	0.139	10.813	0.8
			6 months - 1 year	0.684	0.014	32.474	0.8
			>1 year	1.360	0.084	22.010	0.8
			Unknown	NA 0.394	NA 0.066	NA 2 346	0.3
	History of treatment	History of surgery History of chemotherapy		0.394	0.047	2.239	0.3
	rustory of treatment		History of radiotherapy	2.540	0.380	16.963	0.3
		E	COG PS	0.825	0:352	1.935	0.6
	DIT		Distress thermometer	1.489	1.057	2.096	0.0
	Pili		Impact thermometer	0.812	0.619	1.065	0.
	SF-8		SF8-1	1.035	0.950	1.127	0.4
Items related to mental health/QOL		SF8-2 SF8-3		0.938	0.856	1.028	0.1
		SF8-4		0.994	0.937	1.055	0.8
		SF8-5		1.087	0.998	1.185	0.0
			SF8-6	1.013	0.955	1.073	0.6
		SF8-7		0.986 0.988	0.907	1.072	0.7
	Patient's worries	_	SF8-8 Diagnosis and treatment	1.354	0.193	9.511	0.7
		Symptoms	such as pain, adverse reactions, and sequelae	15.160	0.746	307.931	0.0
			Move to another hospital	1.682	0.135	20.913	0.€
			Home medical care	1.469	0.164	13.189	0.7
		8	Overall aspects of hospitalized life  Drug intake	1.635 0.118	0.223	11.978	0.6
		-	Economic	0.087	0.005	1.653	0.
			Mental	0.543	0.055	5.381	0.0
		Matte	rs concerning the patient's sense of value	1.054	0.074	15.069	0.9
			Family	1.689	0.230	12.387	0.0
		Dalasia	Relation to medical professionals	0.350	0.025 0.577	4.909	0.4
Psychosocial problems		Relatio	n to friends and people around the patient None	6.638 0.000	0.000	76.423 NA	0.
			Others	114666119.303	0.000	NA NA	0.9
	Problems/content of request at the time of referral by attending physician		Pain	0.572	0.086	3.820	0
			Nausea	0.309	0.014	7.062	0.4
		Physical	Difficulty breathing Malaise	0.962 1.077	0.008	122.633 8.100	0.9
		314 E 860 P 89.7	Malaise Ileus	0.000	0.000	8.100 NA	0.9
			Others	1.699	0.250	11.543	0.;
		Care-related	Diets	0.000	0.000	NA	0.
			Walks	6328148657.382	0.000	NA	0.9
			Excretion	0.000	0.000	NA NA	0.
			Bathing Others	100562275285650000000000000000000000000000000000	0.000	NA NA	0.9
			Mental	1.074	0.143	8.079	0.9
			Choice of long-term care facility	11.191	1.344	93.222	0.
		1	Monetary	5102496483.824	0.000	NA	0.
			Family care	1.234	0.160	9.519 21.775	0.
		Drug intake guidance IC support		0.060	0.137	1.063	0.
Coping factors and degree of satisfaction ith medical care system			Spouse	0.498	0.137	1.809	0.
			Parents/children	1.017	0.321	3.219	0.
	Counselors		Siblings/other relatives	1.100	0.271	4.472	0
	Counstions		Medical care staff	0.326	0.068	1.557	- 0
		-	Others None	0.972 0.414	0.222 0.058	4.256 2.939	0
		Co	nsultation on move to another hospital	1.548	0.058	18,585	0
			onsultation on social security systems	0.226	0.016	3.213	0.
	Knowledge of social		Consultation on social resources	0.501	0.033	7.671	0.
	worker duties		Consultation on economic issues	1.619	0.132	19.870	0:
			Consultation on social rehabilitation	2.101	0.214	20.647	0.
			No knowledge	0.559	0.036	8.803	0.

<sup>\$1</sup> Eastern Cooperative Oncology Group Performance Status \$2 Distress and Impact Thermometer \$3 8-Item Short-Form Health Survey

# IV. Discussion

# 1. Anxiety about drug intake

The lower percentage of patients with "worry about drug intake" in the social support intervention-wanting group is attributable to the possible inclusion of many patients with an even worse mental/physical condition such that they were not anxious about the regimen in the patients who wanted to have an intervention. It is estimated that patients in such a state want to resolve their worries other than those concerning the regimen, to which they give lower priority, by utilizing social support services. To demonstrate this, however, data must be compared by treatment stage, and this is a problem to be resolved in the future.

# 2. Association with mental suffering

The multiple logistic regression analysis identified "distress score" in the DIT, revealing an association between severity of mental annoyance and social support needs.

Cancer patients experience many events during the course of their illness, including diagnosis of illness, treatment-related adverse events, recurrences, metastases, physical status deterioration, and treatment discontinuation; this fact has major impacts on the patient's social status and life planning. Cancer-related stress is characterized by a continued burden on the patient<sup>24)</sup>. A study found that the extent of mental annoyance in the terminal phase in advanced cancer patients was extreme in 7.9% of the subjects, moderate to severe in 17.9%, minimal to slight in 24.9%, and 49.3% reported no annoyance. A factorial analysis in the same study revealed physical symptoms in 49.5% of the subjects, psychological suffering in 14.0%, spiritual pain in 17.7%, and social concerns in 18.8%<sup>25)</sup>.

For the survey subjects in the present study, the degree of depression on the DIT scale was calculated as  $5.92 \pm 2.81$  (mean  $\pm$  SD, the same applies below) for distress score and  $4.21 \pm 3.03$  for impact score, which were higher than the cutoff values (0.82 sensitivity and 0.82 specificity in a screening study for adjustment disorder or depression using cutoff values of  $\geq 4$  points for distress score and  $\geq 3$  points for impact score)<sup>22)</sup>, and the criteria were met by 77.3% of the patients in the intervention-wanting group and 77.6% in the non-intervention-wanting group.

Reported adverse effects of depression in cancer patients include QOL reductions due to depressed mood<sup>26)</sup>, refusal to receive anticancer treatment having adverse effects on physical treatment<sup>27)</sup>, possible cases of suicide<sup>28)</sup>, prolonged hospital stay<sup>29)</sup>, and psychological suffering on families 30. In addition, cancer patients are reported to have a significantly high morbidity rate of not only mood disorders, but also anxiety<sup>31)</sup>. Depression can have a strong influence on life in this way. Thus, mental distress was thought that it led to demand for social support from the patients. A problematic fact is that cancerassociated depression is often inappropriately coped with 32, and more than one other study found that medical care staff were unable to properly recognize depressive symptoms and other psychiatric symptoms in cancer patients 33, 34). Depressed states in cancer patients are likely to be viewed as an expected reaction; as a result, care-requiring conditions are overlooked in some cases35). To avoid such situations, it is reportedly important to perform screening for mood disorders at various stages of the treatment course<sup>36</sup>. In addition, psychological support by medical care staff has been shown to promote adaptation in cancer patients<sup>37</sup>. It is important that adequate care be provided by a palliative care team comprising multiple occupations while making careful assessments targeting mental suffering, with a focus not only on physical treatment, but also on support from a psycho-social perspective.

Screening tools for adjustment disorder/ depression in cancer patients are required to have special features, including 1) the minimum possible number of questions allowing the screening to be performed in a short time; 2) easy interpretation of results; 3) use of wording that can be utilized without psychiatric resistance by caregivers and the patient in place of terms that are likely to be resisted, such as "psychiatric" and "depression," and 4) non-inclusion of physical symptom assessments or careful interpretation of such symptoms because cancer patients often have symptoms common to depression, such as anorexia, malaise, insomnia, and decreased mental concentration, irrespective of depression<sup>38, 39)</sup>. The DIT scale, used in the present study, fulfills all of these conditions, and exhibits excellent sensitivity and specificity for detecting psychiatric symptoms, provided that a selected cutoff value is used<sup>22)</sup>. Therefore, DIT is considered to be effective as an indicator of the presence or absence of social work demands and the work applicability on the health professional's side.

3. Problems concerning the choice of long-term care facility arising from information provision by the attending physician

Another identified factor for promoting the patient's demand for social support was that "the attending physician views the patient's choice of long-term care facility as a problematic issue" (Table 2). This is an item the attending physician specified as a problem at the time of referral to the palliative care team, demonstrating an association of adjustment of the choice of long-term care facility by the attending physician with the patient's demand for social support.

Today in Japan, under the scheme of the Basic Plan to Promote Cancer Control Programs, security of places of palliative care and regional cooperation is being sought, including functional strengthening of palliative care teams, mainly at designated cancer hospitals, construction of new palliative care wards, and the shift to home medical care.

Because our hospital is a designated cancer hospital, adjustment of the patient's choice of long-term care facility is likely to be the reason for referring the patient to the palliative care team in the case of a policy to provide best supportive care (BSC) without aggressive treatment.

Efforts by the palliative care team include awareness-raising activity, including poster presentation and leaflet delivery in the hospital, to provide information on the patient's choice of long-term care facility. In addition, it is thought that at in-house training sessions and other occasions, adjustment of the choice of long-term care facility is recognized to be a role of the palliative care team by the attending physician.

In the present study, of "the patient's worries," those about the choice of long-term care facility, such as a move to another

hospital and home medical care, exhibited no significant difference between the two groups (Table 2). At the time of referral to the palliative care team, the explanation about the roles of the team provided by the attending physician for the patient is often rough and unspecific; this is attributable to the fact that adjustment for receiving medical treatment is not focused on as a problematic issue. At the time of introduction of palliative care, early proposal of adjustment of the choice of longterm care facility can sometimes make the patient and his/her family feel "abandoned," leading to anger, despair, distrust, and other unwanted emotions. For this reason, in most referrals made for the purpose of adjusting the choice of long-term care facility, the patient is not informed of the true purpose of the referral to the palliative care team. It seems that the definition of the palliative care team given to the patient is often, "a team that provides comprehensive physical and mental care."

For patients for whom the attending physician considers it necessary to adjust the choice of long-term care facility even in this situation, the patient tends to want to have social support interventions. Patients judged to be in need of movement to a long-term care ward or hospice, or introduction of home medical care, are for the most part considered to be severely affected, to unavoidably withdraw from aggressive treatment, and to be in a deteriorated systemic condition, so that they are going to shift to BSC. For patients who were thought by the attending physician to require an adjustment of the choice of long-term care facility, it was estimated that many problems arose in treatment and longterm care life; their demand for social support interventions is attributable to the fact that the patients themselves feel comprehensive support needs.

# 4. Importance of social support

The present study demonstrated an increasing percentage of patients who want to have social support interventions upon their own discretion in the presence of severe mental suffering in the social support intervention-wanting group, and the attending physician has a problem concerning the choice of long-term care facility.

On the other hand, care-related troubles, and economic issues, which are likely to be recognized as problematic issues by the caregiver in caring for the patient, were not identified as factors associated with the patient's own social support needs. This may suggest a necessity for an approach to specifying such troubles in the course of care. Because the level of knowledge of social worker duties was low for both groups, it seems useful to provide psychological education on social support during the intervention by the palliative care team.

Palliative care staff must be fully aware of the treatment circumstances that underlie the mental suffering felt by the patient and the issue of adjusting the choice of long-term care facility by the attending physician, always keeping in mind the possible existence of problems that are unlikely to manifest themselves. To inform the patient of the availability of problem-resolving approaches making the best use of social support, if necessary even in the absence of his or her wish to have an intervention, may lead to better care.

# 5. Limitations

The present study has some limitations, including the small sample size (less than 90 patients), the small percentage of analysis subjects accounting for only 34.5% of patients receiving palliative care, and the single site status. Another limitation arises from the fact that the QOL assessment scale used is not specific for cancer. For these reasons, we must be careful in generalizing the results of the study.

# V. Conclusions

The situations of patients referred to our hospital's palliative care team were comprehensively investigated, with a focus on social support. In the group wanting to have social support intervention, the degree of anxiety about drug intake was low, and this finding was attributable to the lower priority in association with treatment stage. In addition, as factors associated with the patient's demand for social support, the severity of mental annoyance and the attending physician's awareness of the patient's choice of long-term care facility as a problem were revealed. When introducing social support, it is necessary to pay attention not only to physical aspects and treatment, but also to psycho-social problems, and to take into account trouble acceptance and treatment environment.

Currently in Japan, functional diversification of hospitals in the field of cancer medicine is ongoing, necessitating cooperation between multiple medical institutions. In localities of wide coverage like Iwate Prefecture, in particular, many patients seek aggressive treatment and receive treatment at

designated cancer hospitals located far from their place of residence, leading to a need for moving to other hospitals after completion of a routine course of treatment. Telling to shift from aggressive cancer treatment to BSC often means treatment discontinuation or the relationship with the attending physician, causing anticipation of death and other unwanted outcomes. For patients with a progressing condition, however, movement to a local hospital/long-term care hospital and discharge to home are unavoidable. In some cases, they become unable to utilize their remaining precious time to spend time with their family due to missing the timing of movement to another hospital or discharge to home. Referral to the long-term care facility the patient wants to move to, resolution of anxiety about economic issues. and introduction/utilization of adequate social resources are of paramount importance. While patients and their families have diverse care needs, satisfactory services cannot be provided without support not only by physicians and nurses, but also by clinical psychologists, medical social workers, and many other occupations. The necessity of support through a team approach was suggested for carefully listening to the individual thoughts of the patient/family and providing support to allow them to make their own decisions.

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#### Author's contributions

YS, SI, EF, KC, AK and MN assessed the patients, analyzed the data and wrote the paper. AS and KO supervised and wrote the paper. HN participated in the design of the study and performed the statistical analysis. SI, EF, KC, AK, MN and YK participated

in the study as a whole and commented on the manuscript. AS conceived the study, and participated in its design and coordination. All authors approved the final manuscript.

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# がん患者に対するソーシャルサポートについて: リエゾン精神医学において関与する因子

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#### 要旨

がんは死因の上位を占め、充実したソーシャルサポートの提供が課題である。本研究は岩手医科大学附属病院緩和ケアチームに依頼されたがん患者を対象とし、緩和ケア導入時のソーシャルサポート介入希望に関わる因子を明らかにすることを目的とした。調査は2012年4月からの1年間で、101名を対象とした。対象はソーシャルサポート介入希望群と非希望群の2群に分けられ、因子を比較検討した。介入希望への関連因子を明らかにする目的で多重ロジスティック解析を

行った. 介入希望群では服薬に関する心配を抱えている割合が低く, 服薬を心配するような身体状況ではない可能性が推測された. 介入希望に関連する因子として, つらさの寒暖計の度数, 療養先に関する主治医の問題意識が抽出された. ソーシャルサポートの介入希望には精神的苦痛と社会的問題の影響が想定され, 導入の際は精神面・治療環境等の社会的な問題にも配慮する必要があると考えられた.