

The prevalence and implications of elderly inpatients' desire for a formal psychological help at the start of cancer treatment

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Abstract

Introduction: Little is known about elderly cancer inpatients' desire for psychological help.

Purpose: The aim of this study was to investigate whether elderly cancer inpatients well informed about their diagnosis expressed a desire to receive formal psychological help at the start of their cancer treatment. The characteristics of the patients that sought help were examined.

Methods: This cross-sectional study assessed 650 consecutive cancer inpatients that were 65 years of age and older when they started treatment for breast, colorectal, ovarian, lung, prostate or haematological cancers. Disease-related, medical and psychological characteristics of these patients were assessed using validated tools.

Results: Distress and cognitive impairment were experienced by 37% and 46% of elderly cancer inpatients, respectively. However, only 12% of patients reported a desire for formal psychological help (14% of women vs 9% of men). The patient characteristics examined were found to be weakly associated with this desire (this explained 16% of the variance for women and 14% for men). For the female subgroup, this desire was associated with age [<75 years vs ≥ 75 years; odds ratio (OR) = 2.57], marital status (without a partner vs with a partner; OR = 2.26) and distress (OR = 1.13). For the male subgroup, loss of functional autonomy (OR = 1.41) and pain (OR = 1.22) were relevant characteristics.

Conclusions: Although more than about four out of 10 elderly cancer inpatients in this study experience distress or cognitive impairment, only about one out of 10 expresses a desire for formal psychological help. Therefore, an appropriate sequence of interventions should be scheduled in order to offer them an optimal formal psychological help.

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Introduction

Over the last decade, many studies have demonstrated that adult cancer patients generally experience significant distress and report numerous problems and concerns [1–4]. It has also been reported that untreated distress can lead to long-term detrimental consequences with respect to compliance with treatment [5], quality of life [6], suicide risk [7], desire for hastened death [8] and survival [9]. Actually, over 50% of all new cancer diagnoses occur in elderly patients [10]. Predictions suggest that up to 2050, there will be a further 40% increase in the number of patients living with cancer, of whom one-third will be aged 80 years and older [11]. In elderly cancer patients, potential age-related problems, comorbid medical conditions, social isolation and symptom burden can further overwhelm coping abilities, thereby enhancing feelings of distress and concern [5,12]. It should be underlined here that there are few well-conducted studies at an international level about the respective prevalence of

psychological distress and cognitive impairment among elderly and elderly cancer patients [3,13,14]. As regards prevalence of distress, ranges from 10% to 30% have been reported in elderly with and without cancer [3,15,16]. As regards prevalence of cognitive impairment without dementia, ranges from 5% to 36% have been reported in the general population [13]. A study in elderly cancer patients showed a prevalence of 30% [14]. No study assesses the respective prevalence of distress and/or cognitive impairment among elderly cancer patients at the start of a cancer treatment.

Elderly cancer patients experiencing psychological distress and cognitive impairment may benefit from formal psychological help, defined as the support provided by mental health professional. Although there have been numerous recommendations regarding the ways to organize appropriate formal psychological help for adult cancer patients [17–20], there are currently no such recommendations to address the needs of elderly cancer patients. Therefore, the desire for formal psychological help by elderly cancer patients and the characteristics associated with this desire need to be studied.

Previous studies have suggested that elderly cancer patients less frequently desire formal psychological help compared with younger patients [21,22]. In addition, elderly cancer patients rarely self-refer themselves to psychiatry clinics [23], and health care professionals usually do not properly detect elderly cancer patients who could benefit from formal psychological help [24]. Taken together, these results suggest that elderly cancer patients very frequently do not benefit from the formal psychological help that is available and needed.

It is important that health care professionals in general and physicians in particular identify elderly cancer patients who may not desire formal psychological help, although they experience high levels of distress and numerous concerns. The aim of this study was to investigate the percentage of elderly cancer inpatients who expressed a desire for psychological help when they started treatment and to identify patients' characteristics associated with this desire. As the optimal timing for approaching elderly cancer patients' in order to evaluate their distress, concerns and desire for formal psychological help has not been studied, the start of cancer treatment has been chosen. The start of a cancer treatment may be a good moment to explore elderly cancer patients' reluctance to be helped and to work this reluctance with them and their significant others. We hypothesized, first, that elderly cancer inpatients' sociodemographic characteristics such as being younger, having a higher education level and living alone would positively influence their desire for a formal psychological help as those factors have been shown to influence reported distress and help-seeking in the general population [22,25–27] and in patients suffering from cancer [21]. Second, we hypothesized that disease-related characteristics such as having breast cancer would influence positively this desire as psychological difficulties associated with breast cancer have been widely discussed and recognized [28,29]. Third, we hypothesized that psychological characteristics such as having cognitive impairment and psychological distress would influence positively their desire. Fourth, as psychological distress is not always equivalent to interest in psychological help [21,30], we hypothesized also that medical characteristics such as loss of autonomy, tiredness and nutritional disorders would influence positively elderly cancer inpatients' desire for a formal psychological help as these factors have been well recognized as cues of frailty in the elderly [12,31,32]. Finally, as factors associated with desire for formal psychological help have been shown to differ between genders [21,33], we decided to test our hypotheses separately in women and men.

Methods

Patients and setting

This descriptive cross-sectional study was conducted in the medical-oncology department of a Belgian Cancer

Centre and was approved by the local ethics committee. All consecutive inpatient volunteers fulfilling the inclusion criteria were invited to participate and provided written informed consent. Patients were not compensated for their participation. To fulfil the inclusion criteria, patients had to be at least 65 years old, suffering from one of six types of cancer regardless of the disease stage (breast, colorectal, ovarian, lung, prostate or haematological), hospitalized for the start of treatment and able to speak French. Patients gave their written consent that their participation was voluntary. Patients were excluded if they were hospitalized for palliative care, if they had a diagnostic of severe dementia or if they were unable to achieve the assessment scheduled in this study for physical or psychological reasons. Most patients were seen during the first 48 h after their admission in their rooms. Some patients who were hospitalized for surgery and who could not be approached within the first 48 h were seen on the second day following surgery. The timing 'start of cancer treatment' chosen in this study may thus vary from patients to patients.

Study and assessment procedure

Completion of each assessment—orally administered—lasted approximately 1 h and was assisted by an independent investigator.

Patients' desire for formal psychological help

Patients initially completed a 100-mm Visual Analogue Scale (VAS) on which they had to report their global level of difficulties in dealing with cancer symptoms, treatment side effects and consequences. Thereafter, patients were asked to report whether they desired to receive a formal psychological help. In this study, patients were explained that formal psychological help refers to help given by a mental health professional working in the psycho-oncology clinic.

Patients' sociodemographic and disease-related characteristics

Patients provided demographic information including age, gender, educational level, marital status and living status (alone or with partner, with family, in nursing home or in institution). Physicians provided disease-related characteristics of patients such as type of disease, diagnosis and disease status. As patients were recruited at the start of their initial treatment (just before or just after), information about a precise staging is not available for all of them. For the same reason, information about treatment is not available for all recruited patients.

Patients' medical and psychological characteristics

The medical and psychological characteristics of each patient were assessed using the following validated tools: comorbidity [Charlson Comorbidity Index (CCI)],

functional autonomy [Activities of Daily Living (ADL) and Instrumental Activities of Daily Living (IADL)], mobility [Timed-up-and-go Test (TUG) and Mobility-Tiredness Scale (Mob-T)], nutrition [Mini Nutritional Assessment (MNA)], pain [Visual Analogue Scale (VAS)], cognition [Mini-mental state examination (MMSE) and Montreal Cognitive Assessment (MoCA)], depression [Geriatric Depression Scale in four items (GDS-4)] and distress [Hospital Anxiety and Depression Scale (HADS)]. As these tools are well-known, only the MoCA and HADS will be described here.

Montreal Cognitive Assessment (MoCA) [34]

This cognitive screening test requires respondents to answer questions, read instructions and perform tasks with a writing instrument. The MoCA was developed to screen for mild cognitive impairment, which represents an intermediate diagnosis between normal cognitive decline from ageing and frank dementia. The MoCA is a one-page document and measures nine cognitive domains: visuospatial (4 points), executive functions (2 points), naming (3 points), memory (2 points), attention (4 points), language (2 points), abstraction (2 points), delayed recall (5 points) and orientation (6 points). Scores on the MoCA can range from 0 to 30, and a cut-off score of <26 is used to detect cognitive impairment (whether mild or severe).

Hospital Anxiety and Depression Scale (HADS) [35]

This is a four-point 14-item self-report instrument to assess anxiety (seven items) and depression (seven items) in physically ill individuals. Each item is scored from 0 to 3, so that the maximum for each subscale is 21. The HADS was translated into French and validated in a sample of cancer inpatients [36]. The use of the total score is recommended to assess psychological distress. The recommended cut-off scores are 8 (moderate anxiety or depression) and 11 (severe anxiety or depression) for each subscale [35]. For the global scale, the recommended cut-off scores were 13 (moderate distress) and 19 (severe distress) [36].

Statistical analysis

Initially, a descriptive analysis of all patients was prepared. The univariate relationship between patients' characteristics and their desire for formal psychological help was subsequently evaluated using parametric tests as appropriate (e.g. Student's *t*-test and Chi-squared test). All tests were two-tailed, and alpha was set at 0.05. A backward stepwise (conditional) regression model was computed using logistic regression to assess the relation between each potential predictor and the patients' desire for formal psychological help. All continuous medical and psychological variables were entered as such in the logistic regression. All variables with a univariate *p*-value less than or equal to 0.10 were entered in the model.

The level 0.10 was chosen in order to provide a logistic regression explaining more variance.

Results

Subjects

Of the 767 eligible inpatients, 89 refused to take part in the study, and 28 inpatients were excluded because they did not provide an answer regarding their desire to receive formal psychological help and decided to stop completing the questionnaire. Of the remaining 650 inpatients that were assessed, 15 refused to complete the HADS, and 75 refused to complete the MoCA.

Patients' desire for formal psychological help

Fourteen per cent of the elderly women ($n=60$) and 9% ($n=20$) of the elderly men in this study reported that they desired to receive formal psychological help ($p=0.045$). Correspondingly, univariate analysis identified a significant difference in desire for formal psychological help between these two subgroups. The characteristics associated with a desire for formal psychological help were analysed according to gender.

First of all, it should be underlined that 65% ($n=240$) of elderly women and 61% ($n=114$) of elderly men experienced either mild (or severe) cognitive impairment or moderate (or severe) psychological distress. It should be noted therefore that 35% ($n=131$) of elderly women and 39% of elderly men ($n=78$) in this study present no cognitive impairment and no psychological distress. More precisely according to the MoCA, 48% ($n=179$) of the elderly women and 44% ($n=90$) of the elderly men experienced mild or severe cognitive impairment (MoCA value < 26). According to the HADS, 39% ($n=159$) of the elderly women and 34% ($n=76$) of the elderly men experienced moderate or severe psychological distress (HADS value ≥ 13). Finally, 22% ($n=83$) of the elderly women and 14% ($n=29$) of the elderly men experienced both mild (or severe) cognitive impairment and moderate (or severe) psychological distress. Figure 1 presents the percentage of elderly cancer patients who reported a desire for formal psychological help according to psychological distress and cognitive impairment. In addition, according to the recommended HADS cut-off regarding anxiety and depression [35], it should be underlined that 49% of women ($n=201$) experienced no anxiety, and 85% ($n=349$) experienced no depression, 51% ($n=210$) experienced moderate or severe anxiety and 15% ($n=62$) experienced moderate or severe depression. Sixty-two per cent of men ($n=68$) experienced no anxiety and 83% ($n=186$) experienced no depression, 38% ($n=84$) experienced moderate or severe anxiety and 17% ($n=38$) experienced moderate or severe depression. However, it should be highlighted that the anxiety and

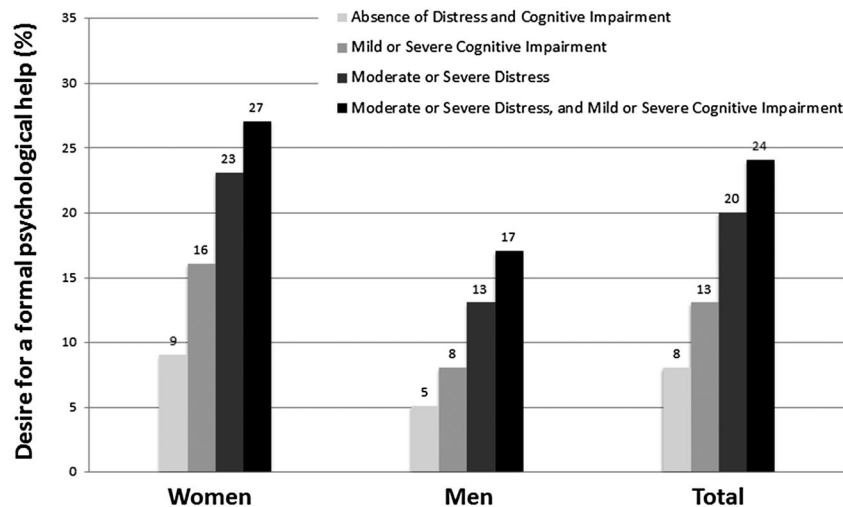


Figure 1. Per cent of elderly inpatients with cancer that desired formal psychological help according to psychological distress (HADS) and cognitive impairment (MoCA) assessments at the start of treatment

depression subscales' scores were not used in this study as characteristics associated with formal psychological help because of validity problems of the HADS subscales in French [36].

Characteristics associated with a desire for psychological help

Table 1 lists the sociodemographic and disease-related characteristics associated with the elderly men and women who expressed a desire for formal psychological help in this study. In addition, Table 2 lists the medical and psychological characteristics associated with these two groups, respectively. Correlation analyses that were conducted to identify relationships between medical and psychological characteristics of elderly women and elderly men revealed that almost all variables are significantly intercorrelated ($r=0.11$ to $r=0.68$).

Regression analysis (Table 3) showed that the desire for formal psychological help by the elderly women of this cohort was associated with the following: (1) an age less than 75 years [odds ratio (OR)=2.57; $p=0.011$]; (2) being single, divorced, separated or a widower (OR = 2.26; $p=0.017$); and (3) distress (HADS) (OR = 1.13; having $p > 0.001$). In contrast, loss of functional autonomy (ADL) (OR = 1.41; $p=0.003$) and pain (VAS) (OR = 1.22; $p=0.016$) were characteristics identified by regression analysis for the elderly men of this cohort as being associated with desire for formal psychological help.

Discussion

The results of this study show that 37% of elderly cancer inpatients experience distress and 46% cognitive impairment at the start of treatment. The aim of this study was to investigate elderly cancer inpatients' desire for formal

psychological help and to identify patients' characteristics associated with this desire. Overall, 12% of the cohort reported a desire for formal psychological help, which included 14% of the female patients and 9% of the male patients. The desire for formal psychological help in this study was infrequent. Furthermore, as seen in Figure 1, even among patients who experienced significant distress and/or cognitive impairment, the majority did not express a desire for formal psychological help. It is possible that elderly cancer inpatients are not aware of the potential benefits of psychological interventions or that the recognition of a psychological disorder at the start of cancer treatment is not a priority. The results of the present study could also be explained by the frequent perception by elderly patients that distress or cognitive impairment is a 'normal' reaction to cancer or ageing, rather than it being a comorbid condition that could be improved with treatment [37,38]. Finally, the results of this study could also be explained by lack of access due to fear of the financial consequences [39] or fear of stigma associated with seeking service [40].

Moreover, the difference between women's and men's desire for psychological help was significant. These results are consistent with well-known gender dissimilarities previously reported in help-seeking behaviour studies, which have demonstrated that women are more socialized to seek help than men [21,33,41]. This tendency has been found to be associated with the traditional standing of men in society, where weakness and need for help are not believed to correspond to their gender characteristics [33,41]. Women moreover often have a caregiving role in the family and tend to seek support outside of it, whereas men often receive support within their family [33,41].

The regression analysis performed showed that the characteristics examined were weakly associated with a

Table 1. Sociodemographic and disease-related characteristics associated with elderly cancer inpatients' desire for formal psychological help: univariate analysis

	Women (n = 422)				P	Men (n = 228)				P
	Desiring help (n = 60)		Not desiring help (n = 362)			Desiring help (n = 20)		Not desiring help (n = 208)		
	N	%	N	%		N	%	N	%	
Age					0.035					0.150
65–74 years	45	75	220	61		17	85	145	70	
≥75 years	15	25	142	39		3	15	63	30	
Educational level^a					0.909					0.680
Junior high school or lower	41	68	244	67		10	50	94	45	
High school graduation or higher degree	19	32	117	33		10	50	114	55	
Marital status					0.044					0.952
Single, divorced, separated or widower	41	68	197	54		5	25	51	25	
Married, having a partner	19	32	165	46		15	75	157	75	
Living status^a					0.339					0.232
Alone	31	52	163	45		6	30	39	19	
With partner; family, in nursing home or in institution	29	48	199	55		14	70	168	81	
Type of disease (for women subgroup)					0.559					—
Breast cancer	44	73	278	77		—	—	—	—	
Colorectal, ovarian, lung or haematological cancer	16	27	84	23		—	—	—	—	
Type of disease (for men subgroup)					—					0.042
Prostate cancer	—	—	—	—		6	30	112	54	
Breast, colorectal, lung or haematological cancer	—	—	—	—		14	70	96	46	
Diagnosis					0.397					0.508
Diagnosis of initial cancer	45	75	252	69		12	60	140	67	
Diagnosis of cancer recurrence	15	25	110	31		8	40	68	33	
Disease status^b					0.942					0.218
Non-metastatic	39	71	237	71		7	47	113	63	
Metastatic	16	29	95	29		8	53	67	37	

^aOne missing data.^bOnly for solid tumour.

desire for formal psychological help (this explained 16% of the variance for women and 14% of the variance for men). This result could be explained by the fact that other variables not assessed in this study may also determine desire for formal psychological help such as coping styles [42], help-seeking attitudes or treatment beliefs [43]. Meanwhile for women, the desire for help was lower among patients ≥75 years, higher among women without a partner and only slightly higher among emotionally distressed women. Of these observations, the first may be explained by a cohort effect. This study confirms the fact that very old elderly patients view mental health services as less useful [44]. The second may be explained by the fact that some elderly women without a partner—and thus without informal support—may seek formal support. It is interesting to note that none of these characteristics were associated with the desire for formal psychological help by the elderly men of this cohort. For example, only men suffering from a loss of autonomy or pain reported a desire for formal psychological help, which represent physical difficulties rather than psychological symptoms. These results go in line with previous studies reporting that men are more prone to seek help for physical difficulties than for psychological symptoms

[45,46]. Nevertheless, it should be kept in mind that both loss of autonomy or pain may have psychological underpinnings and implications such as psychological distress [12,47]. Surprisingly, although for both genders, nutrition greatly influences desire for formal psychological help in the univariate analysis, nutrition does not emerge in the regression analysis. This may be explained by the fact that nutrition disorder is a sign of general frailty of elderly patients [32] and is highly correlated with psychological distress and loss of autonomy. These two variables seem to have thus more impact on the desire for a formal psychological help than a nutrition disorder.

What are the clinical implications of a very low rate of desire for formal psychological help among elderly cancer inpatients found in this study? Given the results of this study, mental health professionals should be aware that although more than about four out of 10 elderly cancer inpatients experience psychological distress or cognitive impairment when they start a treatment, only about one out of 10 desires formal psychological help. This study goes in line with other studies, which have shown that experiencing psychological distress is not always equivalent to interest in formal psychological help [21,30]. Moreover, the characteristics usually assessed in clinical

Table 2. Medical and psychological characteristics associated with elderly cancer inpatients' desire for formal psychological help: univariate analysis

	Women (n = 422)				P	Men (n = 228)				P
	Desiring help (n = 60)		Not desiring help (n = 362)			Desiring help (n = 20)		Not desiring help (n = 208)		
	M	SD	M	SD		M	SD	M	SD	
Comorbidity										
Charlson Comorbidity Index (CCI)	1.7	1.6	2.2	2.8	0.234	3.0	2.4	2.5	2.1	0.295
Functional autonomy										
Activities of Daily Living (ADL)	7.6	3.5	6.5	1.2	0.023	7.7	3.1	6.5	1.1	0.085
Instrumental Activities of Daily Living (IADL)	6.5	2.5	7.3	1.5	0.030	4.2	1.2	4.6	0.8	0.197
Mobility										
Time-up-and-go Test (TUG)	11.3	5.3	10.3	3.2	0.151	10.3	4.5	10.1	2.9	0.866
Mobility-Tiredness Scale (Mob-T) ^a	3.1	2.3	4.0	2.1	0.004	3.9	2.5	4.2	2.1	0.509
Nutrition										
Mini Nutritional Assessment (MNA) ^a	22.5	4.5	24.9	3.5	<0.001	22.2	4.2	25.2	3.9	0.001
Pain										
Visual Analogue Scale (100-mm VAS)	3.0	3.1	2.3	2.7	0.088	3.3	3.4	1.7	2.4	0.060
Cognition										
Mini-Mental State Examination (MMSE)	26.9	4.1	28.1	1.9	0.043	27.3	2.6	27.9	1.9	0.156
Montreal Cognitive Assessment (MoCA) ^b	23.9	4.9	25.2	3.8	0.044	25.1	3.5	25.4	3.2	0.739
Depression										
Geriatric Depression Scale (GDS-4)	1.6	1.2	0.9	0.9	<0.001	1.0	1.1	0.8	0.8	0.214
Distress										
Hospital Anxiety Depression Scale (HADS) ^c	15.5	6.5	11.0	6.0	<0.001	13.0	5.3	10.4	5.7	0.061

^aHigh scores indicate a better status.

^bData from 75 patients were not included.

^cData from 15 patients were not included.

practice do not explain the possibility that an elderly cancer inpatient may desire formal psychological help.

As untreated distress and cognitive impairment can lead to long-term psychiatric and medical detrimental consequences for patients [5–9,48], interventions need to be designed to address this lack of interest in services. So, what are the interventions that could be implemented to improve quality of care, on the basis of the results? First, physicians should consider scheduling an appropriate sequence of interventions for elderly inpatients starting cancer treatment. Physicians should actively invite elderly cancer inpatients to have an interview with a mental health professional. This interview should include an evaluation of patients' distress and cognitive impairment, as well as their psychiatric history, current and past stress factors, reactions and attitudes to cancer and its treatments, and psychosocial support. Mental health professionals should also inform elderly inpatients about the aims of the needed psychological interventions, and motivate and support patients to receive this formal psychological help. As elderly cancer inpatients are likely not familiar with how formal psychological help would benefit, it is crucial to inform these patients about the potential benefits of psychological help. The type and context of this information should be completely different according to the severity of psychological distress and cognitive impairment. Second, mental health professionals should inform physicians about the

results of the psychological evaluation so that the patient and his or her physician may discuss together the potential usefulness and benefits of the psychological intervention (s) in order to both promote optimal care and respect patient autonomy. Furthermore, informal primary caregivers could be included at each stage of this sequence so that the potential usefulness and benefits of these interventions maybe apparent to them as well. As a global consideration, mental health services should also consider adjusting to the needs of a highly vulnerable elderly population, which may include the need for services to be organized at the bedside or within the home, coupled with flexibility in scheduling appointments.

To our knowledge, this is the first study aimed at investigating the desire for formal psychological help of elderly inpatients with cancer and the sociodemographic, disease-related, medical and psychological characteristics associated with this desire. Some limitations of the study should be mentioned. First, this is a cross-sectional study focusing on the start of treatment in an inpatient setting and thus in an extremely emotional context. Further studies should assess the need of formal psychological help in longitudinal design (i.e. desire for formal psychological help may change over time and may vary before and after surgery), other settings (i.e. outpatient) and countries. Second, this study only used the HADS global score to assess psychological distress and the MoCA scale to

Table 3. Characteristics associated with elderly cancer inpatients' desire for formal psychological help: logistic regression model

	Women (n = 370) ^a			Men (n = 222) ^b		
	OR	95% CI	P	OR	95% CI	P
Sociodemographic and disease-related characteristics						
<75 years versus ≥75 years ^c	2.57	1.24 to 5.30	0.011	—	—	—
Single, divorced, separated and widower versus married or having a partner ^c	2.26	1.16 to 4.40	0.017	—	—	—
Medical and psychological characteristics						
Functional autonomy (ADL)	—	—	—	1.41	1.12 to 1.77	0.003
Pain (VAS)	—	—	—	1.22	1.04 to 1.44	0.016
Distress (HADS)	1.13	1.07 to 1.19	<0.001	—	—	—

^aThe proportion of variance explained is 16%. Variables entered in the model and removed as a result of the analysis: Functional autonomy (ADL), Nutrition (MNA), Pain (VAS), Cognition (MoCA).

^bThe proportion of variance explained is 14%. Variables entered in the model and removed as a result of the analysis: Type of disease (prostate cancer versus breast, colorectal, lung or haematological cancer), Nutrition (MNA), Distress (HADS).

^cReference group.

assess cognitive impairment. Further studies should use also other measures of psychological distress and cognitive impairment. Third, this study did not assess patients' history of psychological distress or cognitive impairment and their history of seeking psychological help. Further studies should include an assessment of these variables. More globally, to conclude, further studies should investigate the usefulness, efficacy and cost-effectiveness of organizing appropriate intervention sequences that can address the distress and cognitive impairment experienced specifically by elderly inpatients at the start of cancer treatment, and more generally, all along the process of care.

References

- Kim SJ, Rha SY, Song SK, et al. Prevalence and associated factors of psychological distress among Korean cancer patients. *Gen Hosp Psychiatry* 2011;**33**:246–252.
- Stefanek ME, Derogatis LP, Shaw A. Psychological distress among oncology outpatients. Prevalence and severity as measured with the brief symptom inventory. *Psychosomatics* 1987;**28**:530–532, 537–539.
- Zabora J, BrintzenhofeSzoc K, Curbow B, et al. The prevalence of psychological distress by cancer site. *Psycho-Oncology* 2001;**10**:19–28.
- Gao W, Bennett MI, Stark D, et al. Psychological distress in cancer from survivorship to end of life care: prevalence, associated factors and clinical implications. *Eur J Cancer* 2010;**46**:2036–2044.
- Blazer DG. Epidemiology of late life depression. In *Diagnosis and Treatment of Depression in Late Life*, Schneider LS (ed.), American Psychiatric Press: Washington, 1994; 9–19.
- Bellizzi KM, Blank TO. Predicting posttraumatic growth in breast cancer survivors. *Health Psychol* 2006;**25**:47–56.
- Miller M, Mogun H, Azrael D, et al. Cancer and the risk of suicide in older Americans. *J Clin Oncol* 2008;**26**:4720–4724.
- Eton DT, Lepore SJ. Prostate cancer and health-related quality of life: a review of the literature. *Psycho-Oncology* 2002;**11**:307–326.
- Blank TO, Bellizzi KM. A gerontologic perspective on cancer and aging. *Cancer* 2008;**112**:2569–2576.
- Repetto L, Comandini D, Mammoliti S. Life expectancy, comorbidity and quality of life: the treatment equation in the older cancer patients. *Crit Rev Oncol Hematol* 2001;**37**: 147–152.
- Vercelli M, Capocaccia R, Quaglia A, et al. Relative survival in elderly European cancer patients: evidence for health care inequalities. The EURO CARE Working Group. *Crit Rev Oncol Hematol* 2000;**35**:161–179.
- Hurria A, Li D, Hansen K, et al. Distress in older patients with cancer. *J Clin Oncol* 2009;**27**:4346–4351.
- Ward A, Arrighi HM, Michels S, Cedarbaum JM. Mild cognitive impairment: disparity of incidence and prevalence estimates. *Alzheimers Dement* 2012;**8**:14–21.
- Ketelaars L, Pottel L, Lycke M, et al. Use of the Freund clock drawing test within the Mini-Cog as a screening tool for cognitive impairment in elderly patients with or without cancer. *J Geriatr Oncol* 2013;**4**:174–182.
- Wiltink J, Beutel ME, Till Y, et al. Prevalence of distress, comorbid conditions and well being in the general population. *J Affect Disord* 2011;**130**:429–437.
- Linden W, Vodermaier A, Mackenzie R, Greig D. Anxiety and depression after cancer diagnosis: prevalence rates by cancer type, gender, and age. *J Affect Disord* 2012;**141**:343–351.
- Fawzy FI, Fawzy NW, Arndt LA, Pasnau RO. Critical review of psychosocial interventions in cancer care. *Arch Gen Psychiatry* 1995;**52**:100–113.
- Goodwin PJ, Leszcz M, Ennis M, et al. The effect of group psychosocial support on survival in metastatic breast cancer. *N Engl J Med* 2001;**345**:1719–1726.
- Andersen BL. Biobehavioral outcomes following psychological interventions for cancer patients. *J Consult Clin Psychol* 2002;**70**:590–610.
- Clark MM, Bostwick JM, Rummans TA. Group and individual treatment strategies for distress in cancer patients. *Mayo Clin Proc* 2003;**78**:1538–1543.
- Merckaert I, Libert Y, Messin S, et al. Cancer patients' desire for psychological support: prevalence and implications for screening patients' psychological needs. *Psycho-Oncology* 2010;**19**:141–149.
- Schweer C, Doering S, Haier J, et al. Psycho-Oncology interventions – what do cancer patients aged 60 years or older wish

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Conflict of interest

The authors have declared that there is no conflict of interest.

- for? *Z Psychosom Med Psychother* 2011;**57**:223–232.
23. Alici Y, Weiss T, Holland JC, Nelson C, Roth A. Common psychiatric problems in older patients with cancer: report of one-year experience of a psychiatry outpatient clinic. *J Geriatr Oncol* 2011;**2**:137–141.
 24. Jackson R, Baldwin B. Detecting depression in elderly medically ill patients: the use of the Geriatric Depression Scale compared with medical and nursing observations. *Age Ageing* 1993;**22**:349–353.
 25. Roness A, Mykletun A, Dahl AA. Help-seeking behaviour in patients with anxiety disorder and depression. *Acta Psychiatr Scand* 2005;**111**:51–58.
 26. Tjihuis MA, Peters L, Foets M. An orientation toward help-seeking for emotional problems. *Soc Sci Med* 1990;**31**:989–995.
 27. Rickwood DJ, Braithwaite VA. Social-psychological factors affecting help-seeking for emotional problems. *Soc Sci Med* 1994;**39**:563–572.
 28. Spiegel D. Psychosocial aspects of breast cancer treatment. *Semin Oncol* 1997;**24**:S1–S31–47.
 29. Amir M, Ramati A. Post-traumatic symptoms, emotional distress and quality of life in long-term survivors of breast cancer: a preliminary research. *J Anxiety Disord* 2002;**16**:195–206.
 30. Sollner W, Maislinger S, Konig A, et al. Providing psychosocial support for breast cancer patients based on screening for distress within a consultation-liaison service. *Psycho-Oncology* 2004;**13**:893–897.
 31. Fiorentino L, Rissling M, Liu L, Ancoli-Israel S. The symptom cluster of sleep, fatigue and depressive symptoms in breast cancer patients: severity of the problem and treatment options. *Drug Discov Today Dis Models* 2011;**8**:167–174.
 32. Kaiser M, Bandinelli S, Lunenfeld B. Frailty and the role of nutrition in older people. A review of the current literature. *Acta Biomed* 2010;**81**(Suppl 1):37–45.
 33. Galdas PM, Cheater F, Marshall P. Men and health help-seeking behaviour: literature review. *J Adv Nurs* 2005;**49**:616–623.
 34. Nasreddine ZS, Phillips NA, Bedirian V, et al. The Montreal Cognitive Assessment, MoCA: a brief screening tool for mild cognitive impairment. *J Am Geriatr Soc* 2005;**53**:695–699.
 35. Zigmond AS, Snaith RP. The Hospital Anxiety and Depression Scale. *Acta Psychiatr Scand* 1983;**67**:361–370.
 36. Razavi D, Delvaux N, Farvacques C, Robaye E. Screening for adjustment disorders and major depressive disorders in cancer in-patients. *Br J Psychiatry* 1990;**156**:79–83.
 37. Passik SD, Dugan W, McDonald MV, et al. Oncologists' recognition of depression in their patients with cancer. *J Clin Oncol* 1998;**16**:1594–1600.
 38. Nelson CJ, Cho C, Berk AR, Holland J, Roth AJ. Are gold standard depression measures appropriate for use in geriatric cancer patients? A systematic evaluation of self-report depression instruments used with geriatric, cancer, and geriatric cancer samples. *J Clin Oncol* 2010;**28**:348–356.
 39. Ayalon L, Arean PA, Linkins K, et al. Integration of mental health services into primary care overcomes ethnic disparities in access to mental health services between black and white elderly. *Am J Geriatr Psychiatry* 2007;**15**:906–912.
 40. Palinkas LA, Criado V, Fuentes D, et al. Unmet needs for services for older adults with mental illness: comparison of views of different stakeholder groups. *Am J Geriatr Psychiatry* 2007;**15**:530–540.
 41. Addis ME, Mahalik JR. Men, masculinity, and the contexts of help seeking. *Am Psychol* 2003;**58**:5–14.
 42. Matud M. Gender differences in stress and coping style. *Pers Individ Differ* 2004;**37**:1401–1415.
 43. Mackenzie CS, Scott T, Mather A, Sareen J. Older adults' help-seeking attitudes and treatment beliefs concerning mental health problems. *Am J Geriatr Psychiatry* 2008;**16**:1010–1019.
 44. Ellis J, Lin J, Walsh A, et al. Predictors of referral for specialized psychosocial oncology care in patients with metastatic cancer: the contributions of age, distress, and marital status. *J Clin Oncol* 2009;**27**:699–705.
 45. Corney RH. Sex differences in general practice attendance and help seeking for minor illness. *J Psychosom Res* 1990;**34**:525–534.
 46. Moller-Leimkuhler AM. Barriers to help-seeking by men: a review of sociocultural and clinical literature with particular reference to depression. *J Affect Disord* 2002;**71**:1–9.
 47. Balderson N, Towell T. The prevalence and predictors of psychological distress in men with prostate cancer who are seeking support. *Br J Health Psychol* 2003;**8**:125–134.
 48. Iwasa H, Kai I, Yoshida Y, et al. Global cognition and 8-year survival among Japanese community-dwelling older adults. *Int J Geriatr Psychiatry* 2013;**28**:841–849.